Source: **T1**

Title: **Prose CR to TS 34.123-|3 v3.4.0 for approval**

Agenda item: **5.1.3**

Document for: **Approval**

This document contains the CRs to TS 34.123-3 v.3.4.0 prose part. Just one CR has been agreed by T1 and is put forward to TSG T for approval.

CR #	Rev	Rel	Title	cat	Version in	Version out	Tdoc #
151	-	Rel-99	GERAN ASP changes	F	3.4.0	3.5.0	T1-040412

3GPP TSG-T WG1 Meeting #22
Hyderabad, India, 2nd Feb. – 6th Feb. 2004

Tdoc ⌘T1-0400412(rev.T1-040055)

CR-Form-v7

CHANGE REQUEST

⌘ **34.123-3** **CR** **151** ⌘ **rev** **-** ⌘ Current version: **3.4.0** ⌘

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

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

Title:	⌘	GERAN ASP changes	
Source:	⌘	MCC task 160	
Work item code:	⌘	TEI	***Date:*** ⌘ 06/02/2004
Category:	⌘	F	***Release:*** ⌘ R99

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

Use one of the following releases:

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

Reason for change: ⌘

1. Several GERAN ASPs or IEs in the GERAN ASPs are not used at the test. They can be cleaned up.

2. There are no TTCN guidelines how to write GPRS signalling exchanges and CS/PS ciphering.

3. Missing retryBit IE in G_RLC_ACCESS_IND for access busts on PRACH and RACH.

4. It is not defined how to start synchronously the GSM CS ciphering at the SS side. A new ASP is required for this purpose.

5. Timing advance IE is missing in G_CL1_CreateCell_REQ when a cell is configured.

6. In order to release a configured RLC/MAC entity in SS, new ASP is required. In the current ASP definitions there are no means to release the configured resources.

7. In order to simplify the Packacge Cell Change Order (PCCO) test in 51.010-1, 42.4.7, there is a need to slow down the DL and UL package data rate for keeping a single TBF for the data transferring. The PCO for testing can be kept at the top of LLC.

8. UE capability PIXIT paramters should be documented in 34.123-2, not in -3. The parameters related to the testing should be kept in 34.123-3, not in -2.

9. The TTCN module structure should be updated.

10. Four new RAB channel configurations are required for the new RAB TCs 14.4.2a.

11. Editorial correction of a wrong clause title

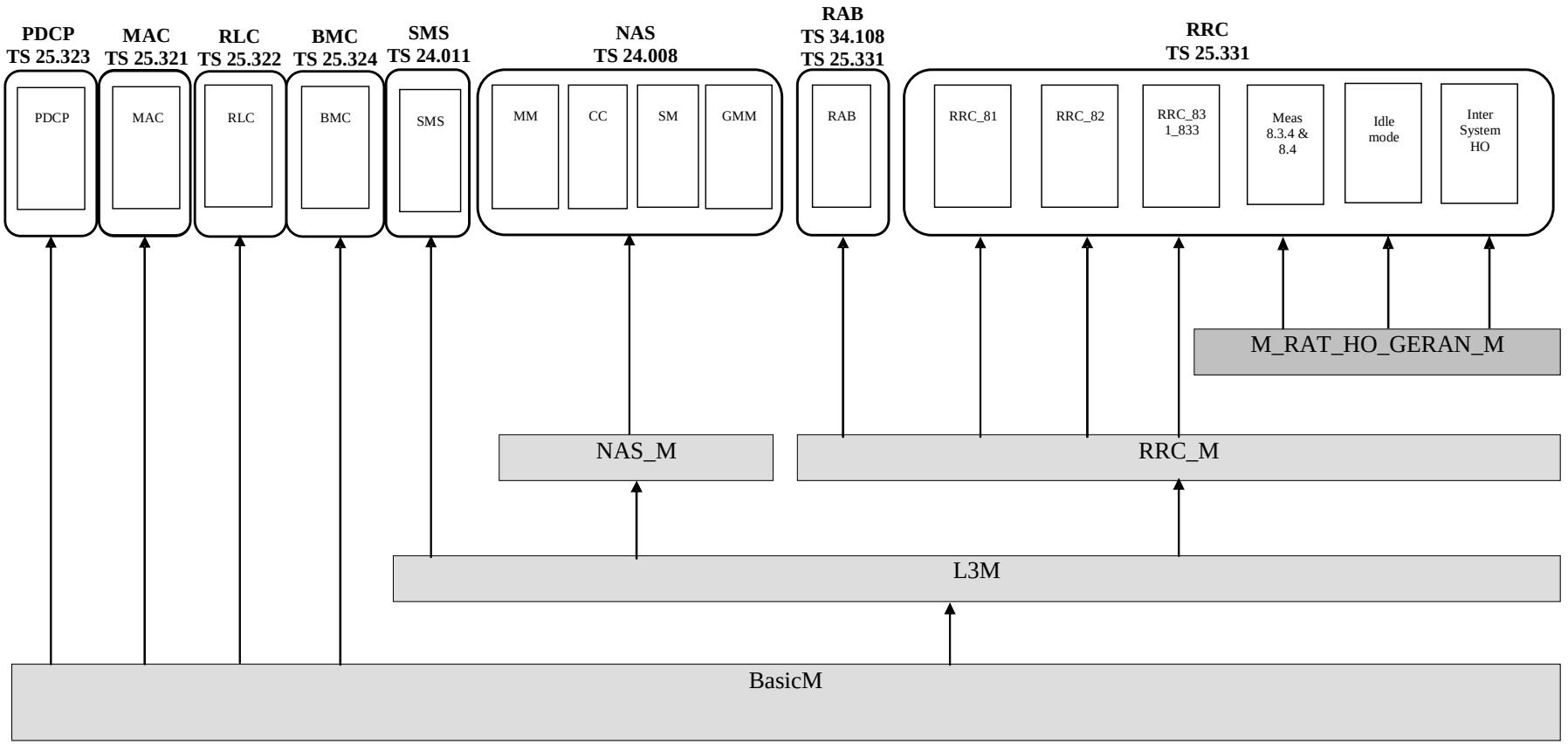
Summary of change:	⌘	1. Clean-up GERAN ASPs. 1.1 Remove ASP G_L2_Release_IND in 7.3.4.3.1.1 1.2 Remove payloadType in G_RLC_ControlMsg_REQ in 7.3.4.3.1.2. The field shall always be filled by the SS. If a RLC/MAC control message is longer than a control block and the segmentation is needed by SS. A correct PayloadType is set by SS together with the optional octet. 1.3 Remove retryBit in G_RLC_ControlMsg_IND in 7.3.4.3.1.2. This field is meaningful only for PACKET CHANNEL REQUEST, EGPRS PACKET CHANNEL REQUEST or CHANNEL REQUEST, but has no meaning in the current ASP. 1.4 Rename IE CHMOD to ChMode; CPHMS to CipherModeSetting in 7.3.4.3.2.1, to be in line with the names used in TTCN. 1.5 Remove singleBlockAllocation in G_CRLC_UL_TBF_Config_REQ as well as in ResourceAllocation IE in 7.3.4.3.2.3. The UL single block allocation does not need a TBF establishment. 1.6 Remove G_CRLC_TBF_Setup_IND in 7.3.4.3.2.3. 1.7 Remove G_CRLC_TBF_Reconfig_REQ ASP in 7.3.4.3.2.3. This ASP has been marked as “to be defined”, till now there is no demand for this ASP. 1.8 Remove fixedAllocation definition in 7.3.4.3.2.3. 1.9 Remove rlcMacEntityId in G_CRLC_CreateRLC_MAC_REQ in 7.3.4.3.2.3. Only one RLC/MAC emulation module in SS exists for one cell, cellId is sufficient for identifying the RLC/MAC emulation module. 2. Examples as the TTCN guidelines for the GPRS generic attach, cell change order and ciphering procedures are added in new clause 6.10.2.7 (only header) and 6.10.2.8. 3. add retryBit in G_RLC_ACCESS_IND in 7.3.4.3.1.2. 4. Add a new ASP G_CL1_CipheringControl_REQ/_CNF in 7.3.4.3.2.1 to control the change of ciphering mode in receiving direction for a CS dedicated physical channel during ciphering mode setting procedure (GSM). 5. Add timingAdvance field in G_CL1_CreateCell_REQ to specify how the uplink timing of SS is in advance of downlink timing in 7.3.4.3.2.1. 6. Add new ASP G_CRLC_DeleteRLC_MAC_REQ/_CNF in 7.3.4.3.2.3. 7. Add uSF_Rate in G_CRLC_UL_TBF_Config_REQ to specify the speed of data block transfer in uplink TBF and add dataBlockRate in G_CRLC_DL_TBF_Config_REQ to specify the speed of data block transfer in down link TBF in 7.3.4.3.2.3. 8. Remove 8 PIXIT parameters in B1.3 - B1.5. Add a new parameter in B.10. 9. Update the TTCN module structure in 5.1.1. 10. New SS channel configurations for 3 SCCPCH TCs are added in 8.3.28 - 8.3.31 11. Editorial corrections of the clause title in 7.3.2.2.3
Consequences if not approved:	⌘	GERAN to UTRAN HO and cell order change tests could not be perforemd. New RAB test cases in TTCN could not be drafted.

Clauses affected:	⌘	For the GERAN ASP changes (1 - 7): 6.10.2.7, 7.3.4.3.1.1, 7.3.4.3.1.2, 7.3.4.3.2.1, 7.3.4.3.2.3 For the change 8: B1.3, B1.4, B1.5, B.10. For the change 9: 5.1.1 For change 10: new clauses 8.3.28 - 8.3.31

		For the change 11: 7.3.2.2.3				
		Y	N			
Other specs affected:	⌘			Other core specifications Test specifications O&M Specifications	⌘	
Other comments:	⌘					

5.1.1 Module structure

The ~~working area~~module structure is shown in figure 1.


PDCP
TS 25.323
MAC
TS 25.321
RLC
TS 25.322
BMC
TS 25.324
SMS
TS 24.011
NAS
TS 24.008
RAB
TS 34.108
TS 25.331
RRC
TS 25.331
PDCP
MAC
RLC
BMC
SMS
MM
CC
SM
GMM
RAB
RRC_81
RRC_82
RRC_83
1_833
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8.3.4 &
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System
HO
M_RAT_HO_GERAN_M
NAS_M
RRC_M
L3M
BasicM

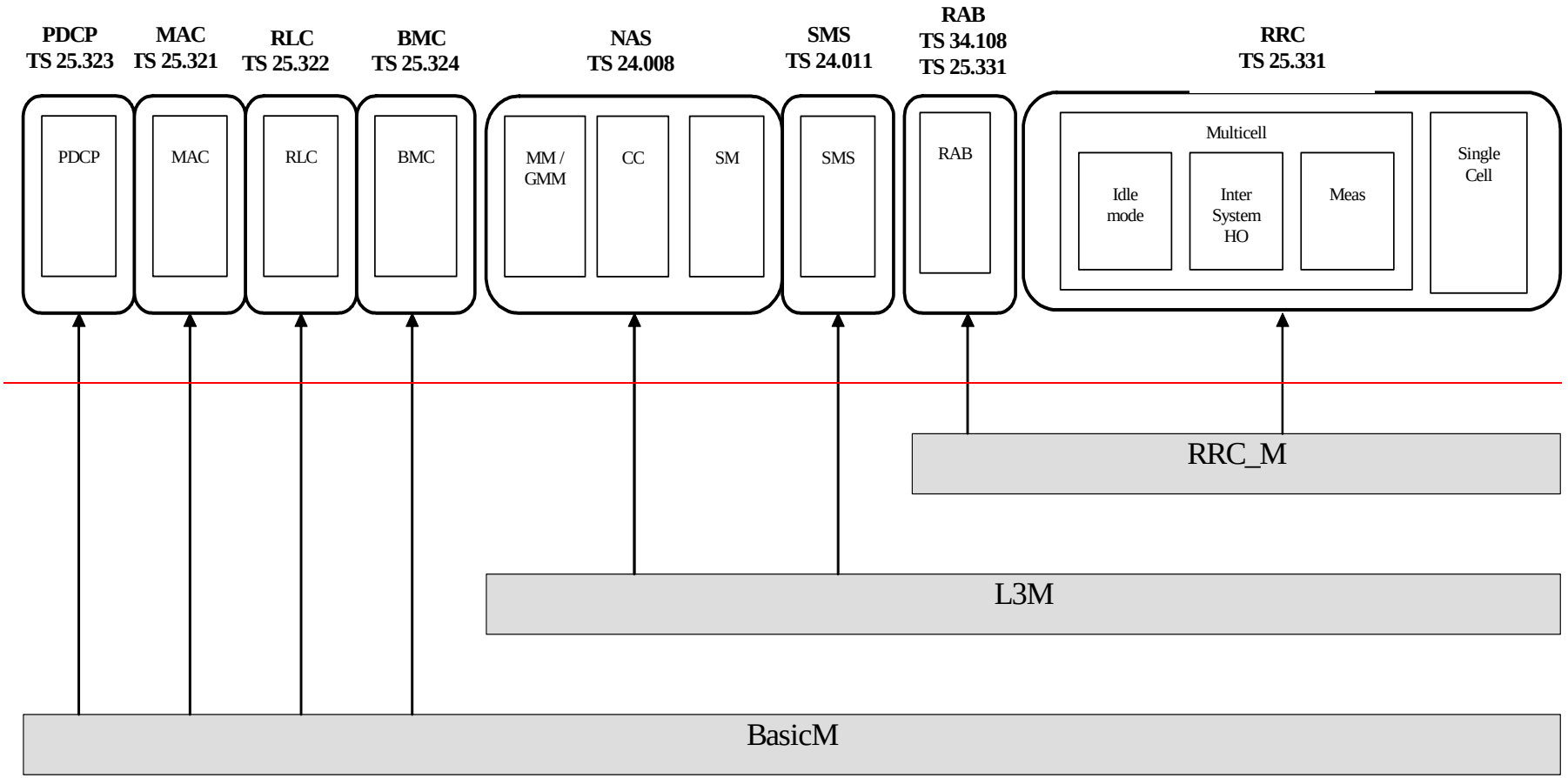

Figure 1: ~~The proposed working area~~Module structure

The BasicM (**Basic M**odule) is a minimum module commonly for the layer 2 and layer 3 testing. The L3M (**L**ayer **3 M**odule) contains all the items to be shared by the RRC, NAS and SMS ATSs. NAS is applied to the NAS ATS. The RRC_M is a module containing common object for RRC and RAB ATSs.

6.10 Multi-RAT Handover Test Model

6.10.1 Overview

The test model is shown in figure **Error! Reference source not found.**. The SS in the model consists of UTRAN emulation part and GERAN emulation part, GERAN emulation part includes protocol emulation modules for GSM CS services and protocol emulation modules for GPRS service. Protocol stack L1 (GERAN), L2 is for GSM CS service function emulation, protocol stack L1, RLC/MAC, LLC, SNDCP is for GPRS service function emulation. SNDCP emulation model and relevant PCO's can be removed if "traffic channel gets through" is not tested.

L1 (GERAN) provides necessary physical layer functionality for both GSM and GPRS. A control PCO and a set of ASP's are defined for configuring and controlling its protocol behaviour required in the test cases. L1 (GERAN) provides services to L2 and RLC/MAC emulation modules, the interfaces between them are not specified in this test model, it is implementation dependent and shall follow the relevant GSM and GPRS specifications.

L2 emulates necessary GSM L2 protocol functionality used in testing. A data PCO and a set of ASP's are defined for this module and used for transmitting and receiving layer 3 signalling messages and use data. The definition of the PCO and these ASP's are based on the logical channel concept of GSM specification. A control PCO and related ASP's are also defined for L2, they are used to introduce abnormal layer 2 behaviour required by the test purposes.

RLC/MAC is emulation module for GPRS Radio Link Control/Medium Access Control protocol. Two PCO's and related ASP's are defined for the module. Control PCO is used to set TBF and assign physical resources to it, actual physical resources (packet channels) are created by L1 (GERAN) ASP's beforehand. Data PCO is for transmitting and receiving RLC control messages (RLC control block). Before any RLC data or control block, except RLC control block on PCCCH or PRACH, or PBCCH, is sent (or received) a proper TBF shall be configured. In addition RLC/MAC module provides service to LLC emulation module, the interface between them is determined by implementation and shall be compliant with relevant core specification.

LLC performs GPRS Logical Link Control protocol emulation. Its data PCO and ASP's are used for exchange GMM signalling messages between TTCN and the UE under test. The current defined ASP's on control PCO are subset of the primitives defined in core specification, they are used to assign, un-assign TLLI and ciphering parameters, or get status report.

6.10.2 ASP function description

6.10.2.1 Identities

- Within the SS, a cell is identified by cell identifier (cellId), which is of TTCN type CellId (INTEGER).
- Within a cell, a basic physical channel is identified by physical channel identifier (physicalChId), which is of TTCN type PhysicalChId (INTEGER). In multislot configuration a basic physical channel is identified by physical channel identifier (physicalChId) and timeslot, which is of TTCN type TN (INTEGER).
- Within a physical channel, logical channel is identified by logical channel type (g_LogicChType), which is of TTCN type G_LogicChType (INTEGER). When multiple logical channels of same type are carried by (mapped to) the same basic physical channel, they are differentiated by sub-channel number (subChannel), which is of TTCN type SubChannelNumber (INTEGER).
- At the top boundary of L2 emulation module two service access points (SAP) are available, they are identified by SAPI. SAPI=3 is used for short message service; SAPI=0 is used for L3 signalling messages and user data.

EXAMPLE: If G_L2_DATA_REQ ASP has the following parameter setting:

- cellId = tsc_CellA;
- sAPI = tsc_SAPI_0;

- physicalChId = tsc_PhyCh0;
- g_LogicChType = tsc_SDCCH4; and
- sunChannel = tsc_SubChannel1;

it sends PDU on the SDCCH4(1) logical channel which is carried by the physical channel tsc_PhyCh0 in cell A.

6.10.2.2 Cell configuration and control

In GSM each base station has a base station identity code BSIC, it consists of network colour code and base station colour code (NCC + BCC). BSIC is continuously broadcasted on the SCH channel, and it shall be used as the training sequence code for broadcast and common control channels.

In the test model the function of G_CL1_CreateCell_REQ ASP is to create a cell and pass parameter BSIC to it. This ASP establishes the cell identifier which shall be used in the ASP's related to this cell.

This is the first step to configure L1 (GERAN) emulation module of the SS.

6.10.2.3 L1 (GERAN) configuration and control

Configuration and control functions identified for L1 (GERAN) of a cell are:

- creation of basic physical channels;
- creation of multislot configuration;
- release of basic physical channel;
- modifications of channel mode, ciphering parameters and transmission power level;
- reporting of L1 header of SACCH channel;
- pickup a frame in near future, which can carry L3 message.

6.10.2.3.1 Basic physical channel configuration

A basic physical channel uses a combination of frequency and time domain resources, therefore, the definition of a particular basic physical channel consists of a description in the frequency domain and a description in the time domain. In time domain the resource is called Time Slot, there are 8 time slots in one frame, numbered from 0 to 7. In frequency domain a basic physical channel may use only one frequency or may use multiple frequencies in frequency hopping.

Basic physical channel carrying FCCH + SCH + BCCH + CCCH (PCH, AGCH, RACH) or FCCH + SCH + BCCH + CCCH + SDCCH4 logical channels shall be located in time slot 0, and uses single frequency (non-hopping). The basic physical channel carrying additional BCCH, CCCH (PCH, AGCH, RACH) logical channels shall be located in time slot 2, 4, 6 and uses the same single frequency as the frequency used by the physical channel carrying FCCH, SCH.

GSM specification defines 24 permitted combinations of different logical channels, which can be mapped on to a basic physical channel. The combination defines which logical channels are carried by a basic physical channel, and it is also an indication of which modulation (GMSK or 8PSK) is used for the basic physical channel.

Training Sequence Code (TSC) is another parameter needed by physical channel. Common control and broadcast channel have to use BCC as its TSC.

Dedicated control channel and dedicated traffic channel need more parameters to configure. Parameter "Channel Mode" is needed to specify channel coding (therefore the user data rate). Ciphering related parameters are required to define the ciphering behaviour of the channel.

Common control channels need parameters to configure where in the 51-multiframe paging and access grant blocks are located.

Transmission power level is provided as per physical channel parameter, power level of each physical channel can be controlled independently.

The function of ASP G_CL1_CreateBasicPhyCh_REQ is to create a basic physical channel which has the required property defined by all the parameters mentioned above.

In the process of L1 (GERAN) configuration, calling the ASP is the next step after calling G_CL1_CreateCell_REQ.

6.10.2.3.2 Multislot configuration for circuit or packet switched channels

Multislot configuration for circuit switched connection consists of multiple circuit switched traffic channels, in L1 point of view these traffic channels are independent basic physical channels with the same frequency parameters (ARFCN or MA, MAIO, HSN) and the same training sequence code but located in different time slots, one of the basic physical channels is the main channel of the configuration carrying the main signalling (FACCH, SACCH, IACCH) for the configuration. The main channel shall be bi-directional channel and with channelCombanition TCH/F+FACCH/F+SACCH/M or E-TCH/F+E-IACCH/F+E-FACCH/F+E-SACCH/M. When transmitting user data (not signalling message) stream is divided into substreams, each substream is transmitted independently on a channel in the configuration. At the receiving side all substreams are combined back to user stream.

According to the test model creation of a multislot configuration for circuit switched connection needs two ASP calls. Firstly, G_L1_CreatedBasicPhyCh_REQ is called to establish the main channel, then G_L1_CreateMultiSlotConfig_REQ is called to allocate more timeslots to the channel established by the previous ASP. A substream of a multislot configuration is is identified with the physicalChId and timeslot.

Multislot configuration for packet switched connection consists of multiple PDCHs which can carry PDTCH/Us or PDTCH/Ds. All these PDCHs use the same frequency parameters (ARFCN or MA, MAIO, HSN) and the same training sequence code, but are located on different timeslots.

Similarly, a multislot configuration for packet switched connection is created with two ASP calls. First G_L1_CreatedBasicPhyCh_REQ is called to establish the first PDCH channel, then G_L1_CreateMultiSlotConfig_REQ is called to allocate more timeslots to the channel established by the previous ASP. All data ASP on packet data channel use physicalChId and timeslot to address the physical channels.

6.10.2.3.3 Frame in the near future

ASP G_CL1_ComingFN_REQ is defined to request L1 (GERAN) return the reduced frame number (FN modulo 42432) which is far enough in the future from current frame number and is able to carry L3 message on the specified channel. "far enough" means that there is enough time left for TTCN to prepare a L3 message to be sent on that frame. When calculating startingTime, this ASP could be useful. The starting time usually is set to a frame number in a time distance from current frame number. TTCN writer can use G_CL1_ComingFN_REQ to get a frame number in the future then add a certan number of frames as time distance to it and use the result as the value for startingTime.

6.10.2.3.4 L1 header

The layer 1 header of SACCH from UE to network carries information of timing advance and UE uplink transmission power level, verifying L1 header contents is required in some test cases, ASP G_CL1_L1Header_REQ and G_CL1_L1Header_CNF are defined for fulfilling this requirement.

6.10.2.4 L2 configuration and control

For normal operation there is no parameter configurable in L2. Some abnormal L2 behaviours are required in test cases. In the test model two ASP's are currently defined to introduce abnormal L2 behaviour. When creating a dedicated channel the initial SACCH header is set to the values in powerLevel and timingAdvance fields of DedCH_Info.

6.10.2.4.1 Don't response to some handover access bursts

In non-synchronized handover procedure UE/MS, having received handover command, sends handover access bursts on the target channel repeatedly till it receives PHYSICAL INFORMATION message from network or T3124 times out. Normally network replies PHYSICAL INFORMATION as soon as it receives handover access burst. Some test cases require that the SS ignores several incoming handover access bursts then responses to the one that follows. ASP G_CL2_HoldPhyInfo_REQ is defined for fulfilling this requirement. It is used together with and before a data ASP sending PHYSICAL INFORMATION message. When SS receives the G_CL2_HoldPhyInfo_REQ, it does not transmit the PHYSICAL INFORMATION message until n handover access bursts have been received.

6.10.2.4.2 No UA reply to SABM

GSM L2 protocol is adapted from LAPD (HDLC subset). The multiframe operation mode is established through exchange of supervisory frame SABM and unnumbered frame UA between peer entities, and SABM is always sent by UE/MS, UA is always sent by network. UE/MS will repeatedly transmit SABM till it receives UA or retransmission counter is reached. Some handover test cases require that the SS does not response to the incoming SABM, so handover fails. G_CL2_NoUAforSABM_REQ is used for such purpose, it commands the SS not to send UA response to the UE when SABM is received.

6.10.2.5 System Information sending

There are 17 different SYSTEM INFORMATION messages on BCCH and 4 different SYSTEM INFORMATION messages on SACCH defined for circuit switched services in GSM specification. In a particular test case not all of them are required. SYSTEM INFORMATION messages on BCCH shall be broadcasted periodically by the SS, SYSTEM INFORMATION TYPE 5, 6 and optionally 5bis and 5ter messages shall be sent on SACCH by the SS when nothing else has to be sent on that channel.

G_L2_SYSINFO_REQ is defined to deliver a SYSTEM INFORMATION message and its type SysInfoType to the SS, SS shall store the SYSTEM INFORMATION and transmit it periodically according to the scheduling rules specified in 3GPP TS 45.002 [**Error! Reference source not found.**] clause 6.3.1.3. SYSTEM INFORMATION message newly delivered shall override the same type SYSTEM IFORMATION message previously stored in the SS.

SYSTEM INFORMATION message type 18, 19, 20 are scheduled by scheduling information in SYSTEM INFORMATION type 9. ASP for scheduling these messages has not been defined yet because these messages are not required in current test cases.

6.10.2.6 Paging

Paging message for a particular UE/MS shall be sent on the right CCCH_GROUP (or PCCCH_GROUP) and PAGING_GROUP which are determined by IMSI of the UE/MS and other parameters. In the test model TTCN code is responsible to calculate the value of CCCH_GROUP (or PCCCH_GROUP) and the value of PAGING_GROUP.

TTCN selects the right channel according to the value of CCCH_GROUP (or PCCCH_GROUP), then PAGING REQUEST message and the value of PAGING_GROUP are passed to the SS by using:

- ASP G_L2_Paging_REQ in case of UE/MS in idle mode or the UE/MS not supporting SPLIT_PG_CYCLE on CCCH when it is in GPRS attached mode and PCCCH is absent; or
- G_RLC_ControlMsg_REQ in case of UE/MS supporting 3GPP TS 45.002 [**Error! Reference source not found.**] clause 6.5.6 when it is in GPRS attached mode and PCCCH is present.

The SS shall determine the position where the paging block is located using the value PAGING_GROUP and other CCCH (or PCCCH) parameters configured by G_CL1_CreateBasicPhyCH_REQ, then send the PAGING REQUEST message according the parameter pagingMode in the ASP:

- send the message on the paging block determined by PAGING_GROUP if pagingMode = "normal paging";
- send the message on the paging block determined by PAGING_GROUP and the "next but one" position on the PCH or in the third block period on PCCCH where paging may occur (PPCH) if pagingMode = "extended paging";
- send the message on all paging blocks if pagingMode ="paging reorganization".

6.10.2.7 Configuration examples for GPRS operation

The following examples show the usage of GPRS ASP's. The first one is the GPRS generic attach procedure, the second one is the generic cell change order within a TBF, the third one is ciphering procedure.

6.10.2.7.1 Example of GPRS attach procedure and ciphering mode control

tbd

6.10.2.7.2 Example of cell change order within a TBF

tbd.

6.10.2.8 Configuration example for GSM ciphering mode control

Direction	ASP	message	Comments
	. . .		Other necessary configuration ASP's

Direction	ASP	message	Comments
SS	G_CL1_CreateBasicPhyCh_REQ		Create a dedicated physical channel, e.g. combination 1 with ciphering not started: This ASP download Kc and ciphering algorithm to the SS with startingCiph = 0 in cipherMode. If there is no authenticantion procedure before CIPHERING MODE COMMAND, the value of Kc in this ASP shall be the one generated in previous authentication procedure, otherwise the value of Kc shall be the one generated by forthcoming authentication procedure.
	. . .		Any other signaling message sending/receiving or configuration ASP's
SS -> MS	G_L2_DATA_REQ	CIPHERING MODE COMMAND	Sent without ciphering
SS			Before this point both transmitting and receiving in the SS are not ciphered.
SS	G_CL1_CipheringControl_REQ		rcvCipherMode ='1' , the SS starts ciphering on receiving
SS	G_CL1_CipheringControl_CNF		
MS -> SS	G_L2_DATA_IND	CIPHERING MODE COMPLETE	After receiveing this message the SS shall start ciphering on transmitting, The CIPHERING MODE COMPLETE is ciphered
	. . .		Any signaling message or user data sending/receiving in ciphered mode

7.3.2.2.3 CPHY_Cell_~~Config~~Release

ASN.1 ASP Type Definition	
Type Name	CPHY_Cell_Release_CNF
PCO Type	CSAP
Comment	The confirmation to the CPHY_Cell_Release_Req
Type Definition	

```
SEQUENCE {
            soft_Reset          BOOLEAN,
            cell_ID_List        SEQUENCE (SIZE (1..8)) OF INTEGER(0..63)    -- cell IDs
}
```

ASN.1 ASP Type Definition	
Type Name	CPHY_Cell_Release_REQ
PCO Type	CSAP
Comment	1. This Primitive with "Soft_Reset" flag ON gives a common known starting point/state of SS for a test case. The SS performs the following whenever it receives this primitive with "Soft_Reset" flag ON:Releases all configured Channels and cells (if any) irrespective of Cell ID list IE. 2. Releases the associated Memory Buffers (if any). 3. Cancels all active timers (if any) With "Soft_Reset" flag OFF: 1. Releases cells listed in IE Cell_ID_List and associated configured Channels (if any) 2. Releases the Memory Buffers(if any) associated with Cells listed in IE Cell_ID_List 3. Cancels all active timers (if any) associated with Cells listed in IE Cell_ID_List.
Type Definition	

SEQUENCE {
soft_Reset BOOLEAN,
cell_ID_List SEQUENCE (SIZE (1..8)) OF INTEGER(0..63) -- cell IDs
}	

7.3.4 GERAN PCO and ASP definitions

7.3.4.1 PCO Type definitions

7.3.4.1.1 PCO type for data transmission and reception in GERAN

Table 1: Declaration of the G_DSAP PCO Type

PCO Type Definition	
PCO Type	G_DSAP
Role	LT
Comment	DATA transmission and reception

7.3.4.1.2 PCO type for configuration and control in GERAN

Table 2: Declaration of the G_CSAP PCO Type

PCO Type Definition	
PCO Type	G_CSAP
Role	LT
Comment	Transmission and reception of control primitives

7.3.4.2 PCO definitions

7.3.4.2.1 PCOs for data transmission and reception in GERAN

7.3.4.2.1.1 PCO for data transmission and reception through GERAN L2

Table 3: Declaration of G_L2 PCO

PCO Type Definition	
PCO Name	G_L2
PCO Type	G_DSAP
Role	LT
Comment	Control and observation point of GERAN L3 messages and user data

7.3.4.2.1.2 PCO for data transmission and reception through GPRS RLC

Table 4: Declaration of G_RLC PCO

PCO Type Definition	
PCO Name	G_RLC
PCO Type	G_DSAP
Role	LT
Comment	Control and observation point of GPRS GRR signalling messages

7.3.4.2.1.3 PCO for data transmission and reception through GPRS LLC

Table 5: Declaration of LLC PCO

PCO Type Definition	
PCO Name	G_LLC
PCO Type	G_DSAP
Role	LT
Comment	Control and observation point of GPRS GMM signalling messages

7.3.4.2.1.4 PCO for data transmission and reception through GPRS SNDCP

Table 6: Declaration of SNDCP PCO

PCO Type Definition	
PCO Name	G_SNDCP
PCO Type	G_DSAP
Role	LT
Comment	Control and observation point of GPRS user packet data

7.3.4.2.2 PCOs for control primitives transmission and reception in GERAN

7.3.4.2.2.1 PCO for GERAN L1control primitives transmission and reception

Table 7: Declaration of G_CL1 PCO

PCO Type Definition	
PCO Name	G_CL1
PCO Type	G_CSAP
Role	LT
Comment	Control GERAN Physical Layer (L1)

7.3.4.2.2.2 PCO for GERAN L2 control primitives transmission and reception

Table 8: Declaration of G_CL2 PCO

PCO Type Definition	
PCO Name	G_CL2
PCO Type	G_CSAP
Role	LT
Comment	Control GERAN L2

7.3.4.2.2.3 PCO for GPRS RLC control primitives transmission and reception

Table 9: Declaration of G_CRLC PCO

PCO Type Definition	
PCO Name	G_CRLC
PCO Type	G_CSAP
Role	LT
Comment	Control GPRS RLC/MAC layer

7.3.4.2.2.4 PCO for GPRS LLC control primitives transmission and reception

Table 10: Declaration of G_CLLC PCO

PCO Type Definition	
PCO Name	G_CLLC
PCO Type	G_CSAP
Role	LT
Comment	Control GPRS LLC layer

7.3.4.2.2.5 PCO for GPRS SNDCP control primitives transmission and reception

Table 11: Declaration of G_CSNDCP PCO

PCO Type Definition	
PCO Name	G_CSNDCP
PCO Type	G_CSAP
Role	LT
Comment	Control GPRS SNDCP layer

7.3.4.3 GERAN ASP Definitions

7.3.4.3.1 ASPs for data transmission and reception in GERAN

7.3.4.3.1.1 ASPs for data transmission and reception through GERAN L2

ASP Name	G_L2_DATA_REQ	
PCO Type	G_DSAP	
Comments	The ASP is used to send L3 signalling message on the signalling channels or user data on the traffic channels to the UE/MS in acknowledged mode.	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
sAPI	SAPI	0 or 3
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	
subChannel	SubChannelNumber	Valid only for logical channel types: TCH/H, FACCH/H, SACCH/TH, SDCCH/8, SACCH/C8, SDCCH/4, and SACCH/C4. For TCH/H, FACCH/H and SACCH/TH value is (0..1); For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
rfn	RFN	The reduced frame number of the first frame on which this message is sent. This field is not applicable and the SS shall ignore it if the field t2 of rfn is coded as '11111'B.
msg	PDU	Signalling message or user data to be sent
Detailed Comments	Parameter rfn is only used in the test cases that require L3 message to be sent on specified frame number.	

ASP Name	G_L2_DATA_IND	
PCO Type	G_DSAP	
Comments	The ASP is used to receive a L3 signalling message on the signalling channels or user data on the traffic channels from the UE/MS in acknowledged mode.	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
sAPI	SAPI	0 or 3
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	
subChannel	SubChannelNumber	Valid only for logical channel types: TCH/H, FACCH/H, SACCH/TH, SDCCH/8, SACCH/C8, SDCCH/4, and SACCH/C4. For TCH/H, FACCH/H and SACCH/TH value is (0..1); For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
rfn	RFN	The reduced frame number of the first frame carrying the message
msg	PDU	Signalling message or user data received
Detailed Comments		

ASP Name	G_L2_L2Estab_IND		
PCO Type	G_DSAP		
Comments	The ASP is used to receive an indication of that L2 multiple frame operation on the specified channel has been established.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
physicalChId		PhysicalChId	Channel identifier
g_LogicChType		G_LogicChType	
subChannel		SubChannelNumber	Valid only for logical channel types: FACCH/H, SDCCH/8 and SDCCH/4, This field shall be coded as 15 if it is not applicable.
sAPI		SAPI	0,3
establish_mode		OCTETSTRING[1]	
rfn		RFN	The reduced frame number of the first frame carries the L2 SABM frame
msg		PDU	this field is present only when the establish mode is CoRes (collision resolution)
Detailed Comments	see 3GPP TS 44.006 clause 7.1.1 and 7.1.3		

ASP Name	G_L2_UNITDATA_REQ		
PCO Type	G_DSAP		
Comments	The ASP is used to send L3 signalling message on the signalling channels or send user data on the traffic channels to the UE/MS in unacknowledged mode.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
sAPI		SAPI	0 or 3
physicalChId		PhysicalChId	Channel identifier
g_LogicChType		G_LogicChType	
subChannel		SubChannelNumber	Valid only for logical channel types: TCH/H, FACCH/H, SACCH/TH, SDCCH/8, SACCH/C8, SDCCH/4, and SACCH/C4. For TCH/H, FACCH/H and SACCH/TH value is (0..1); For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
rfn		RFN	The reduced frame number of the first frame on which this message is sent. This field is not applicable and the SS shall ignore it if the field t2 of rfn is coded as '11111'B.
msg		PDU	Signalling message or user data to be sent
Detailed Comments	Parameter fn is only used in the test cases that require specific L3 message to be sent on specified frame number.		

ASP Name	G_L2_UNITDATA_IND	
PCO Type	G_DSAP	
Comments	The ASP is used to receive a L3 signalling message on the signalling channels or user data on the traffic channels from the UE/MS in unacknowledged mode.	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
sAPI	SAPI	0 or 3
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	
subChannel	SubChannelNumber	Valid only for logical channel types: TCH/H, FACCH/H, SACCH/TH, SDCCH/8, SACCH/C8, SDCCH/4, and SACCH/C4. For TCH/H, FACCH/H and SACCH/TH value is (0..1); For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
rfn	RFN	The reduced frame number of the first frame carrying the message
msg	PDU	Signalling message or user data received
Detailed Comments		

ASP Name	G_L2_ACCESS_IND	
PCO Type	G_DSAP	
Comments	The ASP is used to receive a random access or handover access burst on the specified channel.	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	RACH, FACCH, SDCCH/8, SDCCH/4. RACH is used for random access burst; others are used for handover access burst
subChannel	SubChannelNumber	Valid only for logical channel types: FACCH/H, SDCCH/8, SDCCH/4. This field is not applicable and the SS shall ignore it if this field is coded as 15.
rfn	RFN	The reduced frame number of the first frame carrying the burst
burst	PDU	Random access burst or handover access burst
Detailed Comments		

ASP Name	G_L2_Paging_REQ		
PCO Type	G_DSAP		
Comments	The ASP is used to send a paging message on the specified paging group of the specified paging channel to the UE/MS, when the UE/MS is in idle mode or the UE/MS not supporting SPLIT_PG_CYCLE on CCCH is in GPRS attached mode and PCCCH is absent.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
sAPI		SAPI	0
physicalChId		PhysicalChId	Channel identifier of the right CCCH_GROUP
g_LogicChType		G_LogicChType	PCH
pagingGroup		PAGING_GROUP	
pagingMode		PagingMode	0-normal paging; 1-extended paging; 2-paging reorganization.
msg		PDU	Paging message
Detailed Comments	The SS is required to send valid layer 3 messages continuously on all paging subchannels on CCCH where paging can appear. For "normal paging" the SS send the paging message in the specified pagingGroup; For "extended paging" " the SS send the paging message in the specified pagingGroup and in the "next but one" position on the PCH, following the block corresponding to pagingGroup; For "paging reorganization" the SS send the paging message in all paging subchannels. The required 51-multiframe occurs when: pagingGroup div (N div BS_PA_MFRMS) = (FN div 51) mod (BS_PA_MFRMS) The index to the required paging block in the 51-multiframe determined above: Paging block index = pagingGroup mod (N div BS_PA_MFRMS) N = (9-BS_AG_BLKS_RES) * BS_PA_MFRMS CCCH not combined or N = (3-BS_AG_BLKS_RES) * BS_PA_MFRMS CCCH + SDCCH combined		

ASP Name	G_L2_PagingGPRS_REQ		
PCO Type	G_DSAP		
Comments	The ASP is used to send a paging message on the specified paging group of the specified paging channel to the UE/MS, when the UE/MS supporting SPLIT_PG_CYCLE on CCCH is in GPRS attached mode and PCCCH absent.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
sAPI		SAPI	0
physicalChId		PhysicalChId	Channel identifier of the right CCCH_GROUP
g_LogicChType		G_LogicChType	PCH
pagingGroup		PAGING_GROUP	
pagingMode		PagingMode	0-normal paging; 1-extended paging; 2-paging reorganization.
msg		PDU	Paging message
Detailed Comments	The SS is required to send valid layer 3 messages continuously on all paging subchannels on CCCH where paging can appear. For "normal paging" the SS send the paging message in the specified pagingGroup; For "extended paging" " the SS send the paging message in the specified pagingGroup and in the "next but one" position on the PCH, following the block corresponding to pagingGroup; For "paging reorganization" the SS send the paging message in all paging subchannels. The required 51-multiframe occurs when: pagingGroup div (M div 64) = (FN div 51) mod 64 The index to the required paging block in the 51-multiframe determined above: Paging block index = pagingGroup mod (M div 64) M = (9-BS_AG_BLKS_RES) × 64 CCCH not combined or M = (3-BS_AG_BLKS_RES) × 64 CCCH + SDCCH combined		
NOTE: This ASP may not be implemented if the MS/UE does not support SPLIT_PG_CYCLE on CCCH.			

Type Name	CellId
Type Definition	INTEGER
Type Encoding	
Comments	

Type Name	SAPI
Type Definition	INTEGER
Type Encoding	
Comments	Service access point identifier for GERAN L2 and LLC

Type Name	PhysicalChId
Type Definition	INTEGER(0..31)
Type Encoding	
Comments	Physical channel identifier in GERAN

Type Name	G_LogicChType
Type Definition	INTEGER
Type Encoding	
Comments	GERAN logical channel type: 0-BCCH; 1-RACH; 2-PCH; 3-AGCH; 4-SDCCH/4; 5-SACCH/C4; 6-SDCCH/8; 7-SACCH/C8; 8-TCH/F; 9-FACCH/F; 10-SACCH/TF; 11-TCH/H; 12-FACCH/H; 13-SACCH/TH; 14-PBCCH; 15-PRACH; 16-PPCH; 17-PAGCH; 18-PDTCH/F; 19-PACCH/F; 20-PTCCH/F; 21-E-TCH/F; 22-E-IACCH/F; 23-E-FACCH/F; 24-SACCH/M; 25-SACCH/MD

Type Name	SubChannelNumber
Type Definition	INTEGER
Type Encoding	
Comments	Subchannel number for TCH/H, FACCH/H, SACCH/TH, SDCCH/4, SDCCH/C4, SDCCH/8 and SDCCH/C8. For TCH/H, FACCH/H and SACCH/TH value is (0..1); For SDCCH/8 and SACCH/C8 value is (0..7); For SDCCH/4 and SACCH/C4 value is (0..3).

Type Name	PAGING_GROUP
Type Definition	INTEGER
Type Encoding	
Comments	3GPP TS 05.02 or 3GPP TS 45.002 [**Error! Reference source not found.**] clauses 6.5.2 and 6.5.6

Type Name	PagingMode
Type Definition	INTEGER
Type Encoding	
Comments	0 - normal paging; 1 - extended paging; 2 - paging reorganization.

Type Name	RFN		
Encoding Variation			
Comments	The reduced frame number, its range is 0 -- 42431 (FN modulo 42432) about 195.8 s		
Element Name	**Type Definition**	**Field Encoding**	**Comments**
t1_	BITSTRING[5]		(FN div 1326) mod 32
t3	BITSTRING[6]		FN mod 51
t2	BITSTRING[5]		FN mod 26
Detailed Comments	see 3GPP TS 04.18 or 3GPP TS 44.018 [43] clause 10.5.2.38. The reduced frame number, FN modulo 42432 can be calculated in the following formula: 51 × ((t3 - t2) mod 26) + t3 + 1326 × t1_. RFN is used for starting time and TBF starting time.		

~~ASP Name~~	~~G_L2_Release_IND~~	
~~PCO Type~~	~~G_DSAP~~	
~~Comments~~	~~This ASP from L2, indicates termination of previously established multiple frame operation on the specified SAPI~~	
~~Parameter Name~~	~~Parameter Type~~	~~Comments~~
~~cellId~~	~~CellId~~	
~~sAPI~~	~~SAPI~~	~~0 or 3~~
~~physicalChId~~	~~PhysicalChId~~	~~Channel identifier~~
~~g_LogicChType~~	~~G_LogicChType~~	
~~subChannel~~	~~SubChannelNumber~~	~~For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.~~
~~releaseMode~~	~~BITSTRING[1]~~	~~0 = normal release; 1 = local release~~
~~Detailed Comments~~		

ASP Name	G_L2_Release_CNF	
PCO Type	G_DSAP	
Comments	This ASP from L2, indicates that the multiple frame operation release was successful. This means that the UA message was received in response to L2 DISC command.	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
sAPI	SAPI	0 or 3
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	
subChannel	SubChannelNumber	For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
releaseMode	BITSTRING[1]	0 = normal release; 1 = local release
Detailed Comments		

ASP Name	G_L2_Release_REQ	
PCO Type	G_DSAP	
Comments	This ASP requests L2 to send Layer 2 DISC command on the indicated SAPI.	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
sAPI	SAPI	0 or 3
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	
subChannel	SubChannelNumber	For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
releaseMode	BITSTRING[1]	0 = normal release; 1 = local release
Detailed Comments		

ASP Name	G_L2_SYSINFO_REQ		
PCO Type	G_DSAP		
Comments	The ASP is used to send system information messages to the lower layer emulator.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
sAPI		SAPI	0
physicalChId		PhysicalChId	
g_LogicChType		G_LogicChType	BCCH or SACCH
instanceIndex		INTEGER	To indicate the instance of the system information messages. For SYSTEM INFORMATION Type 2ter, 18, 19, 20 the value is (0..7); for type 14, 15 the value is (0..3); for type 2quater the value is (0..15); for all other type the value is 0.
sysInfoType		SysInfoType	SYSTEM INFORMATION Type 5, 5bis, 5ter, and 6 are sent on SACCH, the other SYSTEM INFORMATION 's are sent on BCCH.
msg		PDU	This field contains SYSTEM INFORMATION message. See 3GPP TS 44.018 [43] clause 9.1.31 to clause 9.1.43h for SYSTEM INFORMATION message definitions.
Detailed Comments	The lower layer emulator shall store the SYSTEM INFORMATION's, and transmit them periodically according to the rules specified in clause 6.3.1.3 of 3GPP TS 05.02 or 3GPP TS 45.002 [**Error! Reference source not found.**]. The msg shall override the same type system information message previous stored in the lower layer emulator.		

Type Name	SysInfoType
Type Definition	INTEGER
Type Encoding	
Comments	25--SYSTEM INFORMATION TYPE 1 26--SYSTEM INFORMATION TYPE 2 2 -- SYSTEM INFORMATION TYPE 2bis 3 -- SYSTEM INFORMATION TYPE 2ter 7 -- SYSTEM INFORMATION TYPE 2quater 27--SYSTEM INFORMATION TYPE 3 28--SYSTEM INFORMATION TYPE 4 29--SYSTEM INFORMATION TYPE 5 5 -- SYSTEM INFORMATION TYPE 5bis 6 -- SYSTEM INFORMATION TYPE 5ter 30--SYSTEM INFORMATION TYPE 6 31--SYSTEM INFORMATION TYPE 7 24--SYSTEM INFORMATION TYPE 8 4 -- SYSTEM INFORMATION TYPE 9 0 -- SYSTEM INFORMATION TYPE 13 61--SYSTEM INFORMATION TYPE 16 62--SYSTEM INFORMATION TYPE 17 64--SYSTEM INFORMATION TYPE 18 65--SYSTEM INFORMATION TYPE 19 66--SYSTEM INFORMATION TYPE 20

7.3.4.3.1.2 ASPs for data transmission and reception through GERAN RLC

ASP Name	G_RLC_PSI_REQ		
PCO Type	G_DSAP		
Comments	The ASP is used to send packet system information messages to the lower layer emulator.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
physicalChId		PhysicalChId	
g_LogicChType		G_LogicChType	PBCCH or PACCH or PCCCH
timeslot		TN	Time slot number of the physical channel
packetSysInfoCategory		PSI_Category	PSI1 or high repetition rate or low repetition rate. Type of this field is INTEGER: 0-- PSI1; 1--high repetition category; 2--low repetition category.
positionInList		PositionInList	Position in the high repetition rate list or the low repetition rate list, for PSI1 this field is not applicable and set to 31. Type of this field is INTEGER, the order of the position is from 0, 1, ... 0 indicates the first position, 1 the second, and so on.
msg		PDU	This field contains PACKET SYSTEM INFORMATION message, see 3GPP TS 04.60 or 3GPP TS 44.060 [**Error! Reference source not found.**] clause 11.2.18 to clause 11.2.25 for the message definitions
Detailed Comments	On PBCCH, the lower layer emulator shall store the PACKET SYSTEM INFORMATION's, and transmit them periodically according to the rules specified in clause 6.3.2.4 of 3GPP TS 05.02 or TS 45.002 [**Error! Reference source not found.**]. The msg shall override the same type packet system information message previous stored in the lower layer. Multiple instances of a PSI shall be put in the same list and in ascending order of the message instance number		

Type Name	PSI_Category
Type Definition	INTEGER
Type Encoding	
Comments	3GPP TS 05.02 or 3GPP TS 45.002 [**Error! Reference source not found.**] clause 6.3.2.4

Type Name	PositionInList
Type Definition	INTEGER
Type Encoding	
Comments	0 is the first position; 1 is the second, and so on.

ASP Name	G_RLC_ControlMsg_REQ		
PCO Type	G_DSAP		
Comments	The ASP is used to transmit a RLC/MAC control message to the UE/MS on the specified channel.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
physicalChId		PhysicalChId	
g_LogicChType		G_LogicChType	PCCCH or PACCH or PTCCH
timeslot		TN	Time slot number of the physical channel
tBF_Direction		INTEGER	1~~0~~-downlink TBF; 0~~1~~-uplink TBF
tFI		TFI	Temporary flow identity
~~payloadType~~		~~PAYLOAD_TYPE~~	~~Payload Type~~
rRBP		RRBP	Relative reserved block period
s_P_Bit		S_P_Bit	Supplementary/polling bit
rfn		RFN	The reduced frame number of the first frame on which this message is sent. This field is not applicable and the SS shall ignore it if the field t2 of rfn is coded as '11111'B.
pagingGroup		PAGING_GROUP	for message other than PACKET PAGING REQUEST this field shall be omitted
pagingMode		PagingMode	0 -- normal paging; 1-- exteded paging; 3 -- paging reorganization. this field is valid only for PACKET PAGING REQUEST control message, for message other than PACKET PAGING REQUEST this field shall be omitted
msg		PDU	Down link RLC/MAC control message
Detailed Comments	This ASP provides values for “RRBP” and “S/P” fields in MAC header for TTCN controlling the response from the UE, the value for “PayloadType” and “USF” fields in MAC header shall be filled by the SS. If a RLC/MAC control message can not be fitted into one RLC/MAC control block, the SS RLC/MAC entity shall take the responsibility of segmentation of the message, and set the correct “PayloadType” and optional octet1 (and optional octet2). PTCCH is valid for PACKET TIMING ADVANCE/POWER CONTROL message if sending PACKET PAGING REQUEST. The required 52-multiframe occurs when: pagingGroup div (M div 64) = (FN div 52) mod 64 The index to the required paging block in the 51-multiframe determined above: Paging block index = pagingGroup mod (M div 64) M = (12 - BS_PAG_BLKS_RES - BS_PBCCH_BLKS) × 64		

~~**Type Name**~~	~~PAYLOAD_TYPE~~
~~**Type Definition**~~	~~BITSTRING[2]~~
~~**Type Encoding**~~	
~~**Comments**~~	~~3GPP TS 04.60 or 3GPP TS 44.060 [32] clause 10.4.7~~

Type Name	RRBP
Type Definition	BITSTRING[2]
Type Encoding	
Comments	3GPP TS 04.60 or 3GPP TS 44.060 [**Error! Reference source not found.**] clause 10.4.5

Type Name	S_P_Bit
Type Definition	BITSTRING[1]
Type Encoding	
Comments	0 - RRBP field is not valid; 1 - RRBP field is valid.

ASP Name	G_RLC_ControlMsg_IND	
PCO Type	G_DSAP	
Comments	The ASP is used to receive an uplink RLC/MAC control block sent by the UE/MS on the specified channel.	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
physicalChId	PhysicalChId	
g_LogicChType	G_LogicChType	PACCH or PDTCH
timeslot	TN	Time slot number of the physical channel
tBF_Direction	INTEGER	1~~0~~ – downlink TBF; 0~~1~~ – uplink TBF
tFI	TFI	Temporary flow identity
~~retryBit~~	~~BITSTRING[1]~~	~~For access bursts on PRACH, RACH and PACCH, this field is no meaning~~
rfn	RFN	The reduced frame number of the frame carrying the message
msg	PDU	Uplink RLC/MAC control message
Detailed Comments	Logical channel type PDTCH is valid for PACKET ENHANCED MEARSUREMENT REPORT message only. The ASP is not used to receive PACKET CHANNEL REQUEST, EGPRS PACKET CHANNEL REQUEST and burst format of PACKET CONTROL ACKNOWLEDGEMENT which are received by G_RLC_ACCESS_IND.	

ASP Name	G_RLC_ACCESS_IND		
PCO Type	G_DSAP		
Comments	The ASP is used to receive an access burst sent by the UE/MS on the specified channel.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
physicalChId		PhysicalChId	
g_LogicChType		G_LogicChType	PRACH or PACCH or PTCCH
timeslot		TN	Time slot number of the physical channe
rfn		RFN	The reduced frame number of the frame carrying the burst
retryBit		BITSTRING[1]	For access bursts on PRACH, RACH. For PACCH, this field is no meaning
burst		PDU	8-bit or 11-bit access burst
Detailed Comments	PACKET CHANNEL REQUEST, EGPRS PACKET CHANNEL REQUEST and burst format of PACKET CONTROL ACKNOWLEDGEMENT are access bursts.		

7.3.4.3.1.3 ASPs for data transmission and reception through GERAN LLC

ASP Name	G_LLC_UNITDATA_REQ		
PCO Type	G_DSAP		
Comments	The ASP is used to send L3 PDU to the UE/MS in LLC unconfirmed transmission.		
Parameter Name		**Parameter Type**	**Comments**
lLMEId		LLMEId	
tLLI		TLLI	
sAPI		SAPI	
protectMode		BITSTRING[1]	0 -- unprotected; 1 -- protected
cipherMode		BITSTRING[1]	0 ~~--~~ sent without ~~no~~ encryption; 1 ~~--~~ sent with encryption~~encrypted~~
msg		PDU	L3 PDU
Detailed Comments	3GPP TS 04.64 or 3GPP TS 44.064 [**Error! Reference source not found.**] clause 8.4.1 After the ciphering function is started in the SS by G_CLLC_Assign_REQ, the SS shall encrypt the "msg" when cipherMode = '1', and the SS shall not encrypt the "msg" if cipherMode = '0'.		

Type Name	LLMEId
Type Definition	INTEGER
Type Encoding	
Comments	The identifier of the Logical Link Management Entity in SGSN

ASP Name	G_LLC_UNITDATA_IND		
PCO Type	G_DSAP		
Comments	The ASP is used to receive a L3 PDU from the UE/MS in LLC unconfirmed transmission.		
Parameter Name		**Parameter Type**	**Comments**
lLMEId		LLMEId	
tLLI		TLLI	
sAPI		SAPI	
msg		PDU	L3 PDU
Detailed Comments	3GPP TS 04.64 or 3GPP TS 44.064 [**Error! Reference source not found.**] clause 8.4.2		

7.3.4.3.1.4 ASPs for data transmission and reception through GERAN SNDCP

ASP Name	G_SN_DATA_REQ		
PCO Type	G_DSAP		
Comments	The ASP is used to send a valid IP datagram on the specified NSAPI to the UE/MS by acknowledged transmission.		
Parameter Name		**Parameter Type**	**Comments**
sNDCPId		SNDCPId	
nSAPI		NSAPI	5-15
n_PDU_Number		N_PDU_Number	
n_PDU		N_PDU	Valid IPv4 or IPv6 datagram
Detailed Comments	Acknowledged transmission mode		

ASP Name	G_SN_DATA_IND		
PCO Type	G_DSAP		
Comments	The ASP is used to receive an IP datagram on the specified NASPI from the UE/MS in acknowledged transmission mode.		
Parameter Name		**Parameter Type**	**Comments**
sNDCPId		SNDCPId	
nSAPI		NSAPI	5-15
n_PDU		N_PDU	IPv4 or IPv6 datagram
Detailed Comments	Acknowledged transmission mode		

ASP Name	G_SN_UNIDATA_REQ		
PCO Type	G_DSAP		
Comments	The ASP is used to send a valid IP datagram on the specified NSAPI to the UE/MS by unacknowledged transmission.		
Parameter Name		**Parameter Type**	**Comments**
sNDCPId		SNDCPId	
nSAPI		NSAPI	5-15
n_PDU		N_PDU	Valid IPv4 or IPv6 datagram
Detailed Comments	Unacknowledged transmission mode		

ASP Name	G_SN_UNITDATA_IND		
PCO Type	G_DSAP		
Comments	The ASP is used to receive an IP datagram on the specified NASPI from the UE/MS in unacknowledged transmission mode.		
Parameter Name		**Parameter Type**	**Comments**
sNDCPId		SNDCPId	
nSAPI		NSAPI	5-15
n_PDU		N_PDU	IPv4 or IPv6 datagram
Detailed Comments	Unacknowledged transmission mode		

ASP Name	G_SN_XID_REQ		
PCO Type	G_DSAP		
Comments	The ASP is used to send the requested XID parameters to the UE/MS.		
Parameter Name		**Parameter Type**	**Comments**
sNDCPId		SNDCPId	
xID_Info		XID_Info	XID parameters requested
Detailed Comments			

ASP Name	G_SN_XID_IND		
PCO Type	G_DSAP		
Comments	The ASP is used to receive the XID parameters requested by the UE/MS.		
Parameter Name		**Parameter Type**	**Comments**
sNDCPId		SNDCPId	
xID_Info		XID_Info	XID parameters requested by the UE/MS
Detailed Comments			

ASP Name	G_SN_XID_CNF	
PCO Type	G_DSAP	
Comments	The ASP is used to receive the negotiated XID parameters agreed by the UE/MS.	
Parameter Name	**Parameter Type**	**Comments**
sNDCPId	SNDCPId	
xID_Info	XID_Info	The negotiated XID parameters agreed by the UE/MS
Detailed Comments		

ASP Name	G_SN_XID_RES	
PCO Type	G_DSAP	
Comments	The ASP sends to the UE/MS the negotiated XID parameters agreed by the SS.	
Parameter Name	**Parameter Type**	**Comments**
sNDCPId	SNDCPId	
xID_Info	XID_Info	The negotiated XID parameters agreed by the SS
Detailed Comments		

Type Name	SNDCPId
Type Definition	INTEGER
Type Encoding	
Comments	The identifier of the SNDCP entity in SGSN

7.3.4.3.2 ASPs for control primitive transmission and reception in GERAN

7.3.4.3.2.1 ASPs for configuration and control of GERAN L1

ASP Name	G_CL1_CreateCell_REQ	
PCO Type	G_CSAP	
Comments	The ASP is used to create a cell in GERAN	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
baseId	BITSTRING[6]	base transceiver station identity code = NCC+BCC. see 3GPP TS 23.003 [**Error! Reference source not found.**]
timingAdvance	BITSTRING[7]	The SS sets the timing of uplink direction in advance of downlink direction timing by this value.
Detailed Comments		

ASP Name	G_CL1_CreateCell_CNF	
PCO Type	G_CSAP	
Comments	The ASP is used to get the confirmation of a G_CL1_CreateCell_REQ	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	The cell created
Detailed Comments		

ASP Name	G_CL1_DeleteCell_REQ	
PCO Type	G_CSAP	
Comments	The ASP is used to delete a cell in GERAN	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	The cell to be deleted
Detailed Comments		

ASP Name	G_CL1_DeleteCell_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to get the confirmation of a G_CL1_DeleteCell_REQ		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The cell deleted
Detailed Comments			

ASP Name	G_CL1_CreateBasicPhyCh_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to create a basic physical channel in GERAN		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The cell which the channel to be created belongs to
physicalChId		PhysicalChId	identifier of the physical channel in the SS.
channelCombination		ChannelCombination	Logical channels combined onto the basic physical channel.
frqInfo		FrqInfo	Parameters for Description of the physical channel in frequency domain
timeSlot		TN	The timeslot number of the physical channel
tsc		TSC	Training sequence code. For common control and broadcast channels the value of tsc must be equal to BCC (base station colour code)
channelSpecificInfo		ChannelSpecificInfo	Specific parameters related to individual channel
txPower		TX_Power	The transmission power level in dBµVemf()
bandIndicator		BITSTRING[1]	Parameter for DCS or PCS frequency band selection. A value 0 for frqInfo.arfcn interpreted as DCS1800. A value 1 for frqInfo.arfcn interpreted as PCS1900. If omitted, the value in frqInfo.arfcn interpreted as DCS1800.
Detailed Comments	The value of channelCombination permitted currently: 1 TCH/F + FACCH/F + SACCH/TF 2 TCH/H(0,1) + FACCH/H(0,1) + SACCH/TH(0,1) 3 TCH/H(0,0) + FACCH/H(0,1) + SACCH/TH(0,1) + TCH/H(1,1) 4 FCCH + SCH + BCCH + CCCH 5 FCCH + SCH + BCCH + CCCH + SDCCH/4(0..3) + SACCH/C4(0..3) 6 BCCH + CCCH 7 SDCCH/8(0..7) + SACCH/C8(0.. 7) 8 TCH/F + FACCH/F + SACCH/M 9 TCH/F + SACCH/M 10 TCH/FD + SACCH/MD 11 PBCCH+PCCCH+PDTCH/F+PACCH/F+PTCCH/F 12 PCCCH+PDTCH/F+PACCH/F+PTCCH/F 13 PDTCH/F+PACCH/F+PTCCH/F 18 E-TCH/F + E-IACCH/F + E-FACCH/F + SACCH/TF 19 E-TCH/F + E-IACCH/F + E-FACCH/F + SACCH/M 20 E-TCH/F + E-IACCH/F + SACCH/M 21 E-TCH/FD + E-IACCH/F + SACCH/MD		

ASP Name	G_CL1_CreateBasicPhyCh_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to get the confirmation of a G_CL1_CreateBasicPhyCh_REQ		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The cell which the created channel belongs to
physicalChId		PhysicalChId	The physical channel created.
Detailed Comments			

Type Name	FrqInfo		
Encoding Variation			
Comments	Parameters for Description of basic physical channel in frequency domain.		
Element Name	**Type Definition**	**Field Encoding**	**Comments**
h	BITSTRING[1]		h=1:hopping channel h=0: non-hopping channel
spr	BITSTRING [3]		'000'B
spr1	BITSTRING [2]		'00'B if h = 0, otherwise OMIT
maio	BITSTRING [6]		mobile allocation index offset if h = 1, otherwise OMIT
hsn	BITSTRING [6]		hopping sequence number if h = 1, otherwise OMIT
arfcn	BITSTRING [10]		absolute RF channel number if h = 0, otherwise OMIT
hoppingFreqList	FrequencyList		hopping frequency list if h = 1, otherwise OMIT. The definition see 3GPP TS 44.018 [43] or 3GPP TS 04.18, clause 10.5.2.13
Detailed Comments			

Type Name	ChannelSpecificInfo		
Encoding Variation			
Comments	Parameters for individual channel		
Element Name	**Type Definition**	**Field Encoding**	**Comments**
dedCH_Info	DedCH_Info		Parameters for dedicated channel. Valid for combination:1, 2, 3, 5, 7, 8, 9, 10 This field is omitted if DedCH_Info does not apply for the channelCombination
cCCH_Info	CCCH_Info		Parameters for common control channels: PCH, SCH,… Valid for combination: 4, 5, 6 This field is omitted if CCCH_Info does not apply for the channelCombination
pCCCH_Info	PCCCH_Info		Parameters for packet common control channels: PCCCH, PPCH,… Valid for combination: 11, 12 This field is omitted if PCCCH_Info does not apply for the channelCombination
pBCCH_Info	PBCCH_Info		Parameters for packet broadcast channels: PBCCH Valid for combination: 11 This field is omitted if PBCCH_Info does not apply for the channelCombination
Detailed Comments			

Type Name	DedCH_Info		
Encoding Variation			
Comments	Parameters for dedicated channel		
Element Name	Type Definition	Field Encoding	Comments
chMod	ChMode~~CHMOD~~		Definition see 3GPP TS 04.18 or 3GPP TS 44.018 [43] clause 10.5.2.6
cipherMode	CipherModeSetting~~CPHMS~~		Definition see 3GPP TS 04.18 or 3GPP TS 44.018 [43] clause 10.5.2.9
cipherKey	BITSTRING[64]		
powerLevel	BITSTRING[5]		Initial MS uplink transmission power level. This value is used in the L1 header of SACCH.
timingAdvance	BITSTRING[7]		Initial timing advance. This value is used in the L1 header of SACCH. This field shall be set to the same value as in timingAdvance of G_CL1_CreateCell_REQ.
Detailed Comments	In addition to ciphering algorithm the cipherMode specifies the initial ciphering mode of the physical channel in both transmission and receiving direction.by startingCiph bit. During ciphering mode setting procedure the ciphering mode of receiving direction can be changed by G_CL1_CipheringControl_REQ.		

Type Name	CCCH_Info		
Encoding Variation			
Comments	Parameters for common control channels		
Element Name	Type Definition	Field Encoding	Comments
bS_PA_MFRMS	BITSTRING[3]		the number of 51-multiframes between transmissions of paging messages. Definition see 3GPP TS 04.18 or 3GPP TS 44.018 [43] clause 10.5.2.11
bS_AG_BLKS_RES	BITSTRING[3]		the number of blocks on each common control channel reserved for access grant messages. Definition see 3GPP TS 04.18 or 3GPP TS 44.018 [43] clause 10.5.2.11
Detailed Comments			

Type Name	PCCCH_Info		
Encoding Variation			
Comments	Parameters for packet common control channels		
Element Name	Type Definition	Field Encoding	Comments
bS_PBCCH_BLKS	BITSTRING[2]		3GPP TS 04.60 or 3GPP TS 44.060 [**Error! Reference source not found.**] clause 12.25
bS_PAG_BLKS_RES	BITSTRING[4]		3GPP TS 04.60 or 3GPP TS 44.060 [**Error! Reference source not found.**] clause 12.25
bS_PRACH_BLKS	BITSTRING[4]		3GPP TS 04.60 or 3GPP TS 44.060 [**Error! Reference source not found.**] clause 12.25
Detailed Comments			

Type Name	PBCCH_Info		
Encoding Variation			
Comments	Parameters for packet broadcast channel		
Element Name	**Type Definition**	**Field Encoding**	**Comments**
pSI1_REPEAT_PERIOD	BITSTRING[4]		The repeat period of packet system information Type 1. See 3GPP TS 04.60 or 3GPP TS 44.060 [**Error! Reference source not found.**] clause 11.2.18
pSI_COUNT_HR	BITSTRING[4]		The number of PSI message instances sent with high repetition rate. See 3GPP TS 04.60 or 3GPP TS 44.060 [**Error! Reference source not found.**] clause 11.2.18
pSI_COUNT_LR	BITSTRING[6]		The number of PSI message instances sent with low repetition rate. See 3GPP TS 04.60 or 3GPP TS 44.060 [**Error! Reference source not found.**] clause 11.2.18
Detailed Comments			

ASP Name	G_CL1_CreateMultiSlotConfig_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to create a multi-slot configuration in GERAN and should be preceded with G_CL1_CreateBasicPhyCh_REQ in order to create a basic physical channel with single timeslot.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The cell which the configuration to be created belongs to
mainChannel		PhysicalChId	identifier of the main physical channel of this multi-slot configuration.
multiSlotAllocation		MultiSlotAllocation	The timeslot allocation of the configuration
Detailed Comments	This ASP is to add a multi-slot configuration to the physical channel created in G_CL1_CreateBasicPhyCh_REQ ASP. For multi-slot configuration refer 3GPP TS 05.02 or 3GPP TS 45.002 [**Error! Reference source not found.**] clause 6.4.2.		

ASP Name	G_CL1_CreateMultiSlotConfig_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to get the confirmation of a G_CL1_CreateMultiSlotConfig_REQ		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The cell which the created multi-slot configuration belongs to
physicalChId		PhysicalChId	The main physical channel identifier.
Detailed Comments			

Type Name	MultiSlotAllocation		
Encoding Variation			
Comments	Used in multi-slot configuration		
Element Name	**Type Definition**	**Field Encoding**	**Comments**
tN0	BOOLEAN		TRUE - time slot 0 is allocated; FALSE -- not allocated
channelCombination0	ChannelCombination		Channel combination fortime slot 0; not applicable if tN0 = FALSE
tN1	BOOLEAN		TRUE - time slot 1 is allocated; FALSE -- not allocated
channelCombination 1	ChannelCombination		Channel Combination fortime slot 1; not applicable if tN1 = FALSE
tN2	BOOLEAN		TRUE - time slot 2 is allocated; FALSE -- not allocated
channelCombination 2	ChannelCombination		Channel Combination fortime slot 2; not applicable if tN2 = FALSE
tN3	BOOLEAN		TRUE - time slot 3 is allocated; FALSE -- not allocated
channelCombination 3	ChannelCombination		Channel Combination fortime slot 3; not applicable if tN3 = FALSE
tN4	BOOLEAN		TRUE - time slot 4 is allocated; FALSE -- not allocated
channelCombination 4	ChannelCombination		Channel Combination for time slot 4; not applicable if tN4 = FALSE
tN5	BOOLEAN		TRUE - time slot 5 is allocated; FALSE -- not allocated
channelCombination 5	ChannelCombination		Channel Combination fortime slot 5; not applicable if tN5 = FALSE
tN6	BOOLEAN		TRUE - time slot 6 is allocated; FALSE -- not allocated
channelCombination 6	ChannelCombination		Channel Combination fortime slot 6; not applicable if tN6 = FALSE
tN7	BOOLEAN		TRUE - time slot 7 is allocated; FALSE -- not allocated
channelCombination 7	ChannelCombination		Channel Combination for time slot 7; not applicable if tN7 = FALSE
Detailed Comments	Multislot configuration is referred to 3GPP TS 05.02 or TS 45.002 clause 6.4.2. The timeslot for which G_CL1_CreateBasicPhyCh_REQ has set the channel combination shall be set to FALSE.		

ASP Name	G_CL1_CipheringControl_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to set the ciphering mode of the physical channel in receiving direction, the kc and ciphering algorithm was set by the G_CL1_CreateBasicPhyCh_REQ for the physical channel before calling the ASP.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
physicalChId		PhysicalChId	Channel identifier
rcvCipherMode		BITSTRING[1]	Ciphering Mode in SS receiving direction: 0→ not ciphered 1→ ciphered
Detailed Comments	For GSM dedicated physical channel, the ciphering mode of the SS shall be changed in three steps: (TS 44.018 subclause 3.4.7) Before the SS sending CIPHERING MODE COMMAND the SS is transmitting and receiving in old ciphering mode (for example, not ciphered), after the SS sending CIPHERING MODE COMMAND the SS changes its receiving ciphering mode to new ciphering mode (for example, ciphered) and keeps transmitting in old ciphering mode; then after receiving CIPHERING MODE COMPLETE or any correct L2 frame in new ciphering mode the SS changes the transmitting ciphering mode to the new mode. TTCN writer shall use this ASP after the SS sending CIPHERING MODE COMMAND to change the ciphering mode of the physical channel in receiving direction, the ciphering mode change in transmission direction is the responsibility of the SS without TTCN ASP.		

ASP Name	G_CL1_CipheringControl_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to confirm that the G_CL1_CipheringControl_REQ is executed correctly.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
physicalChId		PhysicalChId	Channel identifier
Detailed Comments			

ASP Name	G_CL1_ComingFN_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to request lower layer return the reduced frame number (FN modulo 42432) which is far enough in the future from current frame number and is able to carry L3 message on the specified channel. The requirement of "far enough" is that there is enough time left for TTCN to prepare a L3 message to send before that frame. The ASP could also be used in the calculation of a value for starting time		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
physicalChId		PhysicalChId	Channel identifier
g_LogicChType		G_LogicChType	
subChannel		SubChannelNumber	Valid only for logical channel types: TCH/H, FACCH/H, SACCH/TH, SDCCH/8, SACCH/C8, SDCCH/4, and SACCH/C4. For TCH/H, FACCH/H and SACCH/TH value is (0..1); For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
Detailed Comments			

ASP Name	G_CL1_ComingFN_CNF	
PCO Type	G_CSAP	
Comments	The ASP is used to receive the result of G_CL1_ComingFN_REQ.	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	
subChannel	SubChannelNumber	Valid only for logical channel types: TCH/H, FACCH/H, SACCH/TH, SDCCH/8, SACCH/C8, SDCCH/4, and SACCH/C4. For TCH/H, FACCH/H and SACCH/TH value is (0..1); For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
rfn	RFN	the reduced frame number (FN modulo 42432) which is about 5 seconds later than current frame number and is able to carry L3 message on the channel specified by "physicalChId"+"G_LogicChType"+"subChannel"
Detailed Comments		

ASP Name	G_CL1_L1Header_REQ	
PCO Type	G_CSAP	
Comments	The ASP is used to request lower layer return the L1 header of SACCH.	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	SACCH
subChannel	SubChannelNumber	Valid only for logical channel types: SACCH/TH, SACCH/C8, and SACCH/C4 This field is not applicable and the SS shall ignore it if this field is coded as 15.
Detailed Comments		

ASP Name	G_CL1_L1Header_CNF	
PCO Type	G_CSAP	
Comments	The ASP is used to receive the result of G_CL1_L1Header_REQ.	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	SACCH
subChannel	SubChannelNumber	Valid only for logical channel types: SACCH/TH, SACCH/C8, and SACCH/C4 This field is not applicable and the SS shall ignore it if this field is coded as 15.
l1Header	L1HD	Power level and timing advance
Detailed Comments		

ASP Name	G_CL1_DeleteChannel_REQ	
PCO Type	G_CSAP	
Comments	The ASP is used to delete a basic physical channel or an multi-slot configuration	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	The identifier of the cell which the channel to be deleted belongs to
physicalChId	PhysicalChId	The physical channel or the multi-slot configuration to be deleted.
Detailed Comments		

ASP Name	G_CL1_DeleteChannel_CNF	
PCO Type	G_CSAP	
Comments	The ASP is used to get the confirmation of a G_CL1_DeleteChannel_REQ	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	The identifier of the cell which the deleted channel belongs to
physicalChId	PhysicalChId	The physical channel or multi-slot configuration deleted.
Detailed Comments		

ASP Name	G_CL1_ChModeModify_REQ	
PCO Type	G_CSAP	
Comments	The ASP is used to modify the channel mode of a dedicated channel	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	The identifier of the cell
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	
subChannel	SubChannelNumber	Valid only for logical channel types: TCH/H, FACCH/H, SACCH/TH, SDCCH/8, SACCH/C8, SDCCH/4, and SACCH/C4. For TCH/H, FACCH/H and SACCH/TH value is (0..1); For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
chMode	~~CHMOD~~ChMode	Definition see 3GPP TS 04.18 or 3GPP TS 44.018 [43] clause 10.5.2.1b
Detailed Comments		

ASP Name	G_CL1_ChModeModify_CNF	
PCO Type	G_CSAP	
Comments	The ASP is used to get the confirmation of a G_CL1_ChModeModify_REQ	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	The identifier of the cell
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	
subChannel	SubChannelNumber	Valid only for logical channel types: TCH/H, FACCH/H, SACCH/TH, SDCCH/8, SACCH/C8, SDCCH/4, and SACCH/C4. For TCH/H, FACCH/H and SACCH/TH value is (0..1); For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
Detailed Comments		

ASP Name	G_CL1_SetNewKey_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to set new cipher key for a dedicated channel		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The identifier of the cell
physicalChId		PhysicalChId	The channel which uses the new key
g_LogicChType		G_LogicChType	
subChannel		SubChannelNumber	Valid only for logical channel types: TCH/H, FACCH/H, SACCH/TH, SDCCH/8, SACCH/C8, SDCCH/4, and SACCH/C4. For TCH/H, FACCH/H and SACCH/TH value is (0..1); For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
cipherKey		BITSTRING[64]	
Detailed Comments			

ASP Name	G_CL1_SetNewKey_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to get the confirmation of a G_CL1_SetNewKey_REQ		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The identifier of the cell
physicalChId		PhysicalChId	Channel identifier
g_LogicChType		G_LogicChType	
subChannel		SubChannelNumber	Valid only for logical channel types: TCH/H, FACCH/H, SACCH/TH, SDCCH/8, SACCH/C8, SDCCH/4, and SACCH/C4. For TCH/H, FACCH/H and SACCH/TH value is (0..1); For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
Detailed Comments			

ASP Name	G_CL1_CipherModeModify_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to modify cipher mode of a dedicated channel		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The identifier of the cell
physicalChId		PhysicalChId	Channel identifier
g_LogicChType		G_LogicChType	
subChannel		SubChannelNumber	Valid only for logical channel types: TCH/H, FACCH/H, SACCH/TH, SDCCH/8, SACCH/C8, SDCCH/4, and SACCH/C4. For TCH/H, FACCH/H and SACCH/TH value is (0..1); For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
cipherMode		~~CPHMS~~CipherModeSetting	The new cipher mode. Definition see 3GPP TS 04.18 or 3GPP TS 44.018 [43] clause 10.5.2.9
Detailed Comments			

ASP Name	G_CL1_CipherModeModify_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to get the confirmation of a G_CL1_CipherModeModify_REQ		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The identifier of the cell
physicalChId		PhysicalChId	Channel identifier
g_LogicChType		G_LogicChType	
subChannel		SubChannelNumber	Valid only for logical channel types: TCH/H, FACCH/H, SACCH/TH, SDCCH/8, SACCH/C8, SDCCH/4, and SACCH/C4. For TCH/H, FACCH/H and SACCH/TH value is (0..1); For SDCCH/8 and SACCH/C8 value is (0..7); for SDCCH/4 and SACCH/C4 value is (0..3). This field is not applicable and the SS shall ignore it if this field is coded as 15.
Detailed Comments			

ASP Name	G_CL1_ChangePowerLevel_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to change the transmission power level of a physical channel		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The identifier of the cell which the physical channel belongs to
physicalChId		PhysicalChId	Channel using the new transmission power level
txPower		TX_Power	The new transmission power level in dBµVemf()
Detailed Comments			

ASP Name	G_CL1_ChangePowerLevel_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to get the confirmation of a G_CL1_ChangePowerLevel_REQ		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The identifier of the cell
physicalChId		PhysicalChId	The physical channel which uses the new transmission power level
Detailed Comments			

7.3.4.3.2.2 ASPs for configuration and control of GERAN L2

ASP Name	G_CL2_HoldPhyInfo_REQ		
PCO Type	G_CSAP		
Comments	The ASP commands the SS to hold the PHYSICAL INFORMATION message, which will be sent on PCO G_L2 following the current ASP. The PHYSICAL INFORMATION message shall be sent to the UE/MS within T3124 from the time when the SS has received n handover access bursts.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
physicalChId		PhysicalChId	Channel identifier
g_LogicChType		G_LogicChType	
subChannel		SubChannelNumber	Valid only for logical channel types: FACCH/H, SDCCH/8 and SDCCH/4, This field is not applicable and the SS shall ignore it if this field is coded as 15.
n		INTEGER	The number of handover access bursts to be received
Detailed Comments	T3124 is defined in 3GPP TS 04.18 or 3GPP TS 44.018 [43] clause 3.4.4.2.2 and clause 11.1.1		

ASP Name	G_CL2_HoldPhyInfo_CNF	
PCO Type	G_CSAP	
Comments	The ASP is used to get a confirmation of the G_CL2_HoldPhyInfo_REQ.	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	
subChannel	SubChannelNumber	Valid only for logical channel types: FACCH/H, SDCCH/8 and SDCCH/4. This field is not applicable and the SS shall ignore it if this field is coded as 15.
Detailed Comments		

ASP Name	G_CL2_NoUAforSABM_REQ	
PCO Type	G_CSAP	
Comments	The ASP commands the SS not to send UA response to the UE when it receives SABM from the UE on the specified channel.	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	
subChannel	SubChannelNumber	Valid only for logical channel types: FACCH/H, SDCCH/8 and SDCCH/4, This field is not applicable and the SS shall ignore it if this field is coded as 15.
Detailed Comments		

ASP Name	G_CL2_NoUAforSABM_CNF	
PCO Type	G_CSAP	
Comments	The ASP is used to get a confirmation of the G_CL2_NoUAforSABM_REQ.	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	
subChannel	SubChannelNumber	Valid only for logical channel types: FACCH/H, SDCCH/8 and SDCCH/4. This field is not applicable and the SS shall ignore it if this field is coded as 15.
Detailed Comments		

ASP Name	G_CL2_ResumeUAforSABM_REQ	
PCO Type	G_CSAP	
Comments	The ASP commands the SS to send UA response to the UE when it receives SABM from the UE on the specified channel. This ASP is used after G_CL2_NoUAforSABM_REQ to resume the normal multiframe operation of L2	
Parameter Name	**Parameter Type**	**Comments**
cellId	CellId	
physicalChId	PhysicalChId	Channel identifier
g_LogicChType	G_LogicChType	
subChannel	SubChannelNumber	Valid only for logical channel types: FACCH/H, SDCCH/8 and SDCCH/4, This field is not applicable and the SS shall ignore it if this field is coded as 15.
Detailed Comments		

ASP Name	G_CL2_ResumeUAforSABM_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to get a confirmation of the G_CL2_ResumeUAforSABM_REQ.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
physicalChId		PhysicalChId	Channel identifier
g_LogicChType		G_LogicChType	
subChannel		SubChannelNumber	Valid only for logical channel types: FACCH/H, SDCCH/8 and SDCCH/4. This field is not applicable and the SS shall ignore it if this field is coded as 15.
Detailed Comments			

7.3.4.3.2.3 ASPs for configuration and control of GERAN RLC/MAC

ASP Name	G_CRLC_CreateRLC_MAC_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to create a RLC/MAC entity in GERAN RLC/MAC emulation module.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The identifier of the cell
~~rlcMacEntityId~~		~~RlcMacEntityId~~	~~The identifier of RLC/MAC Entity in a cell.~~
Detailed Comments	~~The rlcMacEntityId is used for coupling the LLC layer module.~~ One RLC/MAC entity per cell can exist, cellId will be used for couping LLC layer module to the RLC/MAC emulation module.. The packet channel description given in the ChannelSpecificInfo of G_CL1_CreateBasicPhyCh_REQ shall be used to configure this layer. This ASP shall be called after the G_CL1_CreateBasicPhyCh_REQ ASP.		

ASP Name	G_CRLC_CreateRLC_MAC_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to confirm the G_CRLC_CreateRLC_MAC_REQ		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The identifier of the cell
rlcMacEntityId		RlcMacEntityId	
Detailed Comments			

Type Name	RlcMacEntityId
Type Definition	INTEGER
Type Encoding	
Comments	The identifier of the RLC/MAC Entity in a cell

ASP Name	G_CRLC_DeleteRLC_MAC_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to delete a RLC/MAC entity in GERAN emulation module.		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The identifier of the cell
rlcMacEntityId		RlcMacEntityId	The identifier of RLC/MAC Entity in a cell.
Detailed Comments	This ASP is used to release any resource used for the RLC/MAC emulation entity in the SS.		

ASP Name	G_CRLC_DeleteRLC_MAC_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to confirm the G_CRLC_CreateRLC_MAC_REQ		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	The identifier of the cell
rlcMacEntityId		RlcMacEntityId	
Detailed Comments			

ASP Name	G_CRLC_UL_TBF_Config_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to configure a TBF used for uplink packet data transfer		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
tFI		TFI	
tBF_Mode		BITSTRING[1]	0 - GPRS; 1 - EGPRS
channelCoding		ChannelCoding	
tLLI_BlockChannelCoding		BITSTRING[1]	0 - CS-1 or MCS-1(EGPRS); 1 - same as channelCoding
rLC_Mode		BITSTRING[1]	0 - acknowledged mode; 1 - unacknowledged mode
startingTime		RFN	This field is not applicable and the SS shall ignore it if the field t2 of rfn is coded as '11111'B.
uSF_Rate		INTEGER	This parameter controls the speed of the UL TBF transferring data blocks by controlling the USF rate: 1---> implementation dependent. TTCN does not specify the USF generating rate; 2---> 10 USF's per second; 3---> 5 USF's per second; 4---> 1 USF per second; 5---> 1 USF per 2 seconds; 6---> 1 USF per 3 seconds; 7---> 1 USF per 4 seconds.
dynamicAllocation~~resourceAllocation~~		DynamicAllocation~~ResourceAllocation~~	~~Fixed,~~ dynamic ~~or single~~ allocation and other parameters.
Detailed Comments	For GPRS channel coding can be: CS-1, CS-2, CS-3 and CS-4; For EGPRS channel coding can be : MCS-1, MCS-2, MCS-3, MCS-4, MCS-5, MCS-6, MCS-7, MCS-8, MCS-9, MCS-5-7 and MCS-6-9. Due to one cell currently has only one RLC/MAC emulation module, this ASP does not contain RLC/MAC identity parameter to indicate which RLC/MAC emulation module this TBF is established for, instead, the parameter cellId implicitly indicates the RLC/MAC module, which is created by G_CRLC_CreateRLC_MAC_REQ and has identifier RlcMacEntityId in the cell. The higher layer (LLC emulation module) uses rLC/MAC_MappingInfo (with type of CellId) to address the RLC/MAC emulation module to which it connects		

ASP Name	G_CRLC_UL_TBF_Config_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to get the confirmation of a G_CRLC_UL_TBF_Config_REQ		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
tFI		TFI	
Detailed Comments			

Type Name	ChannelCoding
Type Definition	INTEGER
Type Encoding	
Comments	1 - CS-1; 2 - CS-2; 3 - CS-3; 4 -- CS-4; 5 - MCS-1; 6 - MCS-2; 7 - MCS-3; 8 - MCS-4; 9 - MCS-5; 10 - MCS-6; 11 - MCS-7; 12 - MCS-8; 13 - MCS-9; 14 - MCS-5-7; 15 - MCS-6-9

~~Type Name~~	~~ResourceAllocation~~		
~~Encoding Variation~~			
~~Comments~~	~~Used for up link TBF~~		
~~Element Name~~	~~Type Definition~~	~~Field Encoding~~	~~Comments~~
~~resourceAllocationChoice~~	~~INTEGER~~		~~0 = Dynamic Allocation, 1 = Fixed Allocation 2 = Single Block Allocation~~
~~dynamicAllocation~~	~~DynamicAllocation~~		~~Dynamic allocation or extended dynamic allocation~~
~~fixedAllocation~~	~~FixedAllocation~~		
~~singleBlockAllocation~~	~~SingleBlockAllocation~~		
~~Detailed Comments~~			

Type Name	DynamicAllocation		
Encoding Variation			
Comments	Used for up link TBF; dynamic allocation or extended dynamic allocation		
Element Name	Type Definition	Field Encoding	Comments
extendedAllocation	BITSTRING[1]		0 - dynamic allocation; 1 - extended dynamic allocation
uSFGranularity	BITSTRING[1]		0 - one block; 1 - four blocks
physicalChId	PhysicalChId		Single PDCH or multislot-configured PDCHs
tN0	BOOLEAN		TRUE - time slot 0 is allocated; FALSE -- not allocated
uSF_TN0	BITSTRING[3]		USF value for slot 0
tN1	BOOLEAN		TRUE - time slot 1 is allocated; FALSE -- not allocated
uSF_TN1	BITSTRING[3]		USF value for slot 1
tN2	BOOLEAN		TRUE - time slot 2 is allocated; FALSE -- not allocated
uSF_TN2	BITSTRING[3]		USF value for slot 2
tN3	BOOLEAN		TRUE - time slot 3 is allocated; FALSE -- not allocated
uSF_TN3	BITSTRING[3]		USF value for slot 3

Type Name	DynamicAllocation		
Encoding Variation			
Comments	Used for up link TBF; dynamic allocation or extended dynamic allocation		
Element Name	**Type Definition**	**Field Encoding**	**Comments**
tN4	BOOLEAN		TRUE - time slot 4 is allocated; FALSE -- not allocated
uSF_TN4	BITSTRING[3]		USF value for slot 4
tN5	BOOLEAN		TRUE - time slot 5 is allocated; FALSE -- not allocated
uSF_TN5	BITSTRING[3]		USF value for slot 5
tN6	BOOLEAN		TRUE - time slot 6 is allocated; FALSE -- not allocated
uSF_TN6	BITSTRING[3]		USF value for slot 6
tN7	BOOLEAN		TRUE - time slot 7 is allocated; FALSE -- not allocated
uSF_TN7	BITSTRING[3]		USF value for slot 7
Detailed Comments	The uSF_TNx field is not applicable when tNx = FALSE.		

~~Type Name~~	~~FixedAllocation~~		
~~Encoding Variation~~			
~~Comments~~	~~Used for up link TBF~~		
~~Element Name~~	~~Type Definition~~	~~Field Encoding~~	~~Comments~~
~~downlinkControlSlot~~	~~BITSTRING[3]~~		~~Time slot for downlink control messages~~
~~physicalChId~~	~~PhysicalChId~~		~~single PDCH or multislot configured PDCH's~~
~~timeSlotAllocation~~	~~TimeSlotAllocation~~		
~~blocksOrBlockPeriods~~	~~BITSTRING[1]~~		~~0 -- blocks; 1 -- block periods~~
~~allocationBitMap~~	~~BITSTRING~~		~~See 3GPP TS 04.60 or 3GPP TS 44.060 [32] clause 12.4~~
~~Detailed Comments~~			

~~Type Name~~	~~SingleBlockAllocation~~		
~~Encoding Variation~~			
~~Comments~~	~~Used for up link TBF~~		
~~Element Name~~	~~Type Definition~~	~~Field Encoding~~	~~Comments~~
~~physicalChId~~	~~PhysicalChId~~		~~The physical channel of the allocated block~~
~~timeslot~~	~~TN~~		
~~Detailed Comments~~	~~Time slot number is implicitly indicated by the physical channel identifier.~~		

ASP Name	G_CRLC_DL_TBF_Config_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to configure a TBF used for down link packet data transfer		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
tFI		TFI	
tBF_Mode		BITSTRING[1]	0 - GPRS; 1 - EGPRS
channelCoding		ChannelCoding	
rLC_Mode		BITSTRING[1]	0 - acknowledged mode; 1 - unacknowledged mode
timeSlotAllocation		TimeSlotAllocation	Downlink TBF time slot allocation
startingTime		RFN	This field is not applicable and the SS shall ignore it if the field t2 of rfn is coded as '11111'B.
dataBlockRate		INTEGER	This parameter controls the speed of the DL TBF sending RLC/MAC data blocks on the assigned PDCH's: 1---> implementation dependent. TTCN does not specify the data block rate; 2---> 10 data blocks per second; 3---> 5 data blocks per second; 4---> 1 data block per second; 5---> 1 data block per 2 seconds; 6---> 1 data block per 3 seconds; 7---> 1 data block per 4 seconds.
Detailed Comments	For GPRS channel coding can be: CS-1, CS-2, CS-3 and CS-4; For EGPRS channel coding can be : MCS-1, MCS-2, MCS-3, MCS-4, MCS-5, MCS-6, MCS-7, MCS-8, MCS-9, MCS-5-7 and MCS-6-9.		

ASP Name	G_CRLC_DL_TBF_Config_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to get the confirmation of a G_CRLC_DL_TBF_Config_REQ		
Parameter Name		**Parameter Type**	**Comments**
cellId		CellId	
tFI		TFI	
Detailed Comments			

Type Name	TimeSlotAllocation		
Encoding Variation			
Comments	Used for downlink and up link TBF		
Element Name	**Type Definition**	**Field Encoding**	**Comments**
physicalChId	PhysicalChId		single PDCH or multislot-configured PDCHs
tN0	BOOLEAN		Timeslot 0; TRUE - allocated; FALSE - not allocated.
tN1	BOOLEAN		Timeslot 1; TRUE - allocated; FALSE - not allocated.
tN2	BOOLEAN		Timeslot 2; TRUE - allocated; FALSE - not allocated.
tN3	BOOLEAN		Timeslot 3; TRUE - allocated; FALSE - not allocated.
tN4	BOOLEAN		Timeslot 4; TRUE - allocated; FALSE - not allocated.
tN5	BOOLEAN		Timeslot 5; TRUE - allocated; FALSE - not allocated.
tN6	BOOLEAN		Timeslot 6; TRUE - allocated; FALSE - not allocated.
tN7	BOOLEAN		Timeslot 7; TRUE - allocated; FALSE - not allocated.
Detailed Comments			

~~Declaration of G_CRLC_TBF_Reconfig_REQ ASP~~

~~TBD~~

~~ASP Name~~	~~G_CRLC_TBF_Reconfig_CNF~~	
~~PCO Type~~	~~G_CSAP~~	
~~Comments~~	~~The ASP is used to get the confirmation of a G_CRLC_TBF_Reconfig_REQ~~	
~~Parameter Name~~	~~Parameter Type~~	~~Comments~~
~~cellId~~	~~CellId~~	
~~tFI~~	~~TFI~~	
~~Detailed Comments~~		

~~ASP Name~~	~~G_CRLC_TBF_Setup_IND~~	
~~PCO Type~~	~~G_CSAP~~	
~~Comments~~	~~This ASP is used to indicate that the cell has downlink data blocks queued for transmission and a TBF must be created to transmit them.~~	
~~Parameter Name~~	~~Parameter Type~~	~~Comments~~
~~cellId~~	~~CellId~~	
~~rLC_Mode~~	~~BITSTRING[1]~~	~~0 - acknowledged mode; 1 - unacknowledged mode~~
~~Detailed Comments~~		

7.3.4.3.2.4 ASPs for configuration and control of GERAN LLC

ASP Name	G_CLLC_CreateLLE_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to create an LLE (LLC Entity) in GERAN ~~LLC~~ emulation part of the SS and connects the created LLE to the RLC/MAC emulation module pointed by rLC/MAC_MappingInfo. ~~module~~.		
Parameter Name		**Parameter Type**	**Comments**
lLMEId		LLMEId	Logical Layer Management Entity Id
~~RlcMacEntityId~~rLC/MAC_MappingInfo		~~RlcMacEntityId~~CellId	This parameter indicates the RLC/MAC emulation module in the cell, not the cell itself. ~~e~~ ~~identifier of the RLC /MAC entity to couple this lLMEId.~~
Detailed Comments	The ~~RlcMacEntityId~~ RLC/MAC emulation module needs to be created prior to this ASP by G_CRLC_CreateRLC_MAC_REQ ASP.		

ASP Name	G_CLLC_CreateLLE_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to confirm the G_CLLC_CreateLLE_REQ		
Parameter Name		**Parameter Type**	**Comments**
lLMEId		LLMEId	The identifier of the cell Logical Layer Management Entity Id
~~rlcMacEntityId~~		~~RlcMacEntityId~~	~~The identifier of the RLC /MAC entity this lLMEId is coupled.~~
Detailed Comments			

ASP Name	G_CLLC_DeleteLLE_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to delete an LLE (LLC Entity) in GERAN LLC emulation module.		
Parameter Name		**Parameter Type**	**Comments**
lLMEId		LLMEId	Logical Layer Management Entity Id
Detailed Comments			

ASP Name	G_CLLC_DeleteLLE_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to confirm the G_CLLC_DeleteLLE_REQ		
Parameter Name		**Parameter Type**	**Comments**
lLMEId		LLMEId	Logical Layer Management Entity Id
Detailed Comments			

ASP Name	G_CLLC_Assign_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to assign, change, or unassign the TLLI, the ciphering key (Kc) and the ciphering algorithm of GERAN LLC emulation module.		
Parameter Name		**Parameter Type**	**Comments**
lLMEId		LLMEId	Logical Layer Management Entity Id
oldTLLI		TLLI	OCTETSTRING[4]
newTLLI		TLLI	
cipherKey		BITSTRING[64]	
cipherAlgorithm		GPRS_CipherAlg	BITSTRING[3], see 3GPP TS 24.008 [**Error! Reference source not found.**] clause 10.5.5.3
Detailed Comments	This ASP is used to assign, change, or unassign the TLLI, the ciphering key (Kc) and the ciphering algorithm. 1. The oldTLLI and newTLLI parameters shall be interpreted as follows: - If oldTLLI = all 1's and newTLLI ≠ all 1's then newTLLI is assigned and used when (re-)transmitting LLC frames. If an oldTLLI ≠ all 1's was assigned to the LLME, then oldTLLI is unassigned. Only newTLLI is accepted when received from the peer. It shall be treated as a TLLI change. If oldTLLI = all 1's was assigned to the LLME, then this shall be treated as a TLLI assignment, and this ASP shall be the first ASP sent to the SS in order to enable LLC to process requests from layer 3. - If oldTLLI ≠ all 1's and newTLLI ≠ all 1's then oldTLLI and newTLLI are assigned, and newTLLI shall be used when (re-)transmitting LLC frames. Both oldTLLI and newTLLI shall be accepted when received from the peer. It shall be treated as a TLLI change. - If oldTLLI ≠ all 1's and newTLLI = all 1's then oldTLLI shall be unassigned. It shall be treated as a TLLI unassignment, and this ASP shall be the last ASP sent to the SS in order to disable LLC to not process requests from layer 3 any longer. 2. Kc and Ciphering Algorithm are associated with newTLLI (and with oldTLLI if assigned): - If Ciphering Algorithm indicates no ciphering, then the ciphering function shall be disabled. - Otherwise, the ciphering function shall be enabled. If a Ciphering Algorithm was already associated with newTLLI or oldTLLI, then the new Kc shall replace the previous Kc, and Ciphering Algorithm shall replace the previous algorithm selection. All I frames, and UI frames with the E bit set to 1, shall use the new Kc and algorithm for ciphering. All unacknowledged I frames shall be ciphered using the new Kc and algorithm before retransmission. As an implementation option, the previous Kc and algorithm may be used to decipher received frames.		

ASP Name	G_CLLC_Assign_CNF		
PCO Type	G_CSAP		
Comments	the ASP is used to get confirmation of G_CLLC_Assign_REQ		
Parameter Name		**Parameter Type**	**Comments**
lLMEId		LLMEId	Logical Layer Management Entity Id
Detailed Comments			

ASP Name	G_CLLC_ReassignLLE_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to reassign RLC/MAC entity to the specified LLME Identity.		
Parameter Name		**Parameter Type**	**Comments**
lLMEId		LLMEId	Logical Layer Management Entity Id
~~rlcMacEntityId~~ rLC/MAC_MappingInfo		~~RlcMacEntityId~~CellId	~~The identifier of the RLC /MAC entity to couple this lLMEId.~~ This parameter indicates the RLC/MAC emulation module in the cell, not the cell itself
tLLI		TLLI	
Detailed Comments	This ASP allows simulation of- Intra-SGSN operations in tests.		

ASP Name	G_CLLC_ReassignLLE_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to confirm the G_CLLC_ReassignLLE_REQ		
Parameter Name		**Parameter Type**	**Comments**
lLMEId		LLMEId	Logical Layer Management Entity Id
~~rlcMacEntityId~~		~~RlcMacEntityId~~	~~The identifier of the RLC /MAC entity to couple this lLMEId.~~
Detailed Comments			

7.3.4.3.2.5 ASPs for configuration and control of GERAN SNDCP

ASP Name	G_CSNDCP_Activate_REQ		
PCO Type	G_CSAP		
Comments	The ASP is used to activate the SNDC entity		
Parameter Name		**Parameter Type**	**Comments**
sNDCPId		SNDCPId	The SNDCP entity identifier of the cell
lLMEId		LLMEId	Logical link management entity Id
nSAPI		NSAPI	The Network Service Access Point Identifier
sAPI		SAPI	LLC SAPI
PCI_Compression		INTEGER	0 - RFC 1144 [46] compress; 1 - RFC 2507 [30] compression; 32 - no compression
dataCompression		INTEGER	0 - V.42bis [47] compression; 1 - V.44 [48] compression; 32 - no compression
nPDUNumberSync		INTEGER	0 - Asynchronous 1 - Synchronous
Detailed Comments			

ASP Name	G_CSNDCP_Activate_CNF		
PCO Type	G_CSAP		
Comments	The ASP is used to get the confirmation of a G_CSNDCP_Activate_REQ		
Parameter Name		**Parameter Type**	**Comments**
sNDCPId		SNDCPId	SNDCPentity identifier
nSAPI		NSAPI	The Network Service Access Point Identifier
Detailed Comments			

ASP Name	G_CSNDCP_SNSM_Activate_RES		
PCO Type	G_CSAP		
Comments	This ASP is used to inform that the NSAPI is in use and the acknowledge mode peer to peer LLC operation for the requested SAPI is established.		
Parameter Name		**Parameter Type**	**Comments**
sNDCPId		SNDCPId	The SNDCP entity identifier
tLLI		TLLI	Temperory Logical Link Entity
nSAPI		NSAPI	The Network Service Access Point Identifier
Detailed Comments			

ASP Name	G_CSNDCP_SNSM_Deactivate_IND		
PCO Type	G_CSAP		
Comments	This ASP is used to inform the SNDCP emulator that an NSAPI has been deactivated and cannot be used anymore. Upon reception of this ASP the SNDCP emulator shall release acknowledged peer-to-peer LLC operation for the associated SAPI.		
Parameter Name		**Parameter Type**	**Comments**
sNDCPId		SNDCPId	The SNDCP entity identifier
tLLI		TLLI	Temperory Logical Link Entity
nSAPI		NSAPI	The Network Service Access Point Identifier
lLCReleaseIndicator		INTEGER	Deactivation cause
Detailed Comments			

ASP Name	G_CSNDCP_SNSM_Deactivate_RES		
PCO Type	G_CSAP		
Comments	This ASP indicates that the NSAPI is no longer in use and the acknowledged peer to peer LLC operation for the requested SAPI has been released.		
Parameter Name		**Parameter Type**	**Comments**
sNDCPId		SNDCPId	The SNDCP entity identifier
tLLI		TLLI	Temperory Logical Link Entity
nSAPI		NSAPI	The Network Service Access Point Identifier
Detailed Comments			

ASP Name	G_CSNDCP_SNSM_Status_REQ		
PCO Type	G_CSAP		
Comments	This ASP informs that the SNDCP cannot continue its operation due to errors in the lower layers of the protocol stack.		
Parameter Name		**Parameter Type**	**Comments**
sNDCPId		SNDCPId	The SNDCP entity identifier
tLLI		TLLI	Temperory Logical Link Entity
sAPI		SAPI	The Service Access Point Identifier
cause		INTEGER	Error cause
Detailed Comments			

ASP Name	G_CSNDCP_SNSM_Modify_IND		
PCO Type	G_CSAP		
Comments	This ASP informs the SNDCP emulator to trigger the change of QoS profile for an NSAPI and indication of the SAPI to be used		
Parameter Name		**Parameter Type**	**Comments**
sNDCPId		SNDCPId	The SNDCP entity identifier
tLLI		TLLI	Temperory Logical Link Entity
nSAPI		NSAPI	The Network Service Access Point Identifier
qos		OCTETSTRING[4]	Quality of Service, defined 3GPP TS 04.08 or 3GPP TS 44.008 [49] clause 10.5.6.5
sAPI		SAPI	
send_NPDU_Number		INTEGER	
received_NPDU_Number		INTEGER	
Detailed Comments			

ASP Name	G_CSNDCP_SNSM_Modify_RES	
PCO Type	G_CSAP	
Comments	This ASP indicates that the NSAPI and QoS profile are now in used and the acknowledged peer to peer LLC operations for the appropriate SAPIs are established and/or released	
Parameter Name	**Parameter Type**	**Comments**
sNDCPId	SNDCPId	The SNDCP entity identifier
tLLI	TLLI	Temperory Logical Link Entity
nSAPI	NSAPI	The Network Service Access Point Identifier
Detailed Comments		

8.3.28 Configuration of Cell_FACH_2_SCCPCH_StandAlonePCH_2a

The configuration is based on 3GPP TS 34.108 [**Error! Reference source not found.**], clause 6.10.2.4.3.2a for downlink and 3GPP TS 34.108 [**Error! Reference source not found.**] except the mapping of PCH, clause 6.10.2.4.4.2 for uplink. The configuration is applied to the RAB tests.

Table: Uplink configuration of Configuration of Configuration of Cell_FACH_2_SCCPCH_StandAlonePCH_2a

RB Identity	tsc_RB24 (24)	tsc_RB20 (20)	tsc_RB0 (0)	tsc_RB1 (1)	tsc_RB2 (2)	tsc_RB3 (3)	tsc_RB4 (4)
LogCh Type	DTCH	DTCH	CCCH	DCCH	DCCH	DCCH	DCCH
LogCh Identity	Tsc_UL_DTCH4 (10)	Tsc_UL_DTCH1 (7)	tsc_UL_CCCH5 (5)	tsc_UL_DCCH1 (1)	tsc_UL_DCCH2 (2)	tsc_UL_DCCH3 (3)	tsc_UL_DCCH4 (4)
LC mode	AM	AM	TM	UM	AM	AM	AM
rCH Type	RACH						
TrCH identity	tsc_RACH1 (15)						
PhyCh Type	PRACH						
PhyCH identity	tsc_PRACH1 (8)						

Table: Downlink configuration of Cell_FACH_2_SCCPCH_StandAlonePCH_2a

RB Identity	tsc_RB20 (20)	tsc_RB24 (24)	tsc_RB0 (0)	tsc_RB1 (1)	tsc_RB2 (2)	tsc_RB3 (3)	tsc_RB4 (4)	tsc_RB_BCCH_FACH (-3)	tsc_RB_PCCH2 (-19)
LogCh Type	DTCH	DTCH	CCCH	DCCH	DCCH	DCCH	DCCH	BCCH	PCCH
LogCh Identity	tsc_DL_DTCH1 (7)	tsc_DL_DTCH4 (10)	tsc_DL_CCCH5 (5)	tsc_DL_DCCH1 (1)	tsc_DL_DCCH2 (2)	tsc_DL_DCCH3 (3)	tsc_DL_DCCH4 (4)	tsc_BCCH6 (6)	tsc_PCCH1 (1)
RLC mode	AM	AM	UM	UM	AM	AM	AM	TM	TM
MAC priority	1	1	1	2	3	4	5	6	1
TrCH Type	FACH	FACH	FACH						PCH
TrCH identity	tsc_FACH2 (14)		tsc_FACH1(13)						tsc_PCH1 (12)
PhyCh Type	Secondary CCPCH								Secondary CCPCH
PhyCH identity	tsc_S_CCPCH2 (10)								tsc_S_CCPCH1 (5)

8.3.29 Configuration of Cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1

The configuration is based on 3GPP TS 34.108 [3], clause 6.10.2.4.3.2a for downlink and 3GPP TS 34.108 [3], clause 6.10.2.4.4.2 for uplink. The configuration is applied to the RAB tests.

The uplink configuration of Cell_FACH_3_SCCPCH_4_FACH Cnfg1 is the same as the uplink configuration of Cell_FACH_2_SCCPCH_StandAlonePCH_2a

Table: Downlink configuration of Cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1: 1st & 2nd S-CCPCH

RB Identity	tsc_RB23 (23)	tsc_RB22 (22)	tsc_RB0 (0)	tsc_RB_BCCH_FACH (-3)	tsc_RB_PCCH (-2)
LogCh Type	DTCH	DTCH	CCCH	BCCH	PCCH
LogCh Identity	tsc_DL_DTCH3 (9)	tsc_DL_DTCH2 (8)	tsc_DL_CCCH5 (5)	tsc_BCCH6 (6)	tsc_PCCH1 (1)
RLC mode	AM	AM	UM	TM	TM
MAC priority	1	1	1	6	1
TrCH Type	FACH	FACH	FACH		PCH
TrCH identity	tsc_FACH2 (14)		tsc_FACH1 (13)		tsc_PCH1 (12)
PhyCh Type	Secondary CCPCH				Secondary CCPCH
PhyCH identity	tsc_S_CCPCH2 (10)				tsc_S_CCPCH1 (5)

Table 12: Downlink configuration of Cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1: 3rd S-CCPCH

RB Identity	tsc_RB24 (24)	tsc_RB20 (20)	tsc_RB29 (29)	tsc_RB1 (1)	tsc_RB2 (2)	tsc_RB3 (3)	tsc_RB4 (4)	tsc_RB_BCCH_FACH_RAB (-19)
LogCh Type	DTCH	DTCH	CCCH	DCCH	DCCH	DCCH	DCCH	BCCH
LogCh Identity	tsc_DL_DTCH4 (10)	tsc_DL_DTCH1 (7)	tsc_DL_CCCH6 (6)	tsc_DL_DCCH1 (1)	tsc_DL_DCCH2 (2)	tsc_DL_DCCH3 (3)	tsc_DL_DCCH4 (4)	tsc_BCCH7 (7)
RLC mode	AM	AM	UM	UM	AM	AM	AM	TM
MAC priority	1	1	1	2	3	4	5	6
TrCH Type	FACH		FACH					
TrCH identity	tsc_FACH4 (17)		tsc_FACH3 (16)					
PhyCh Type	Secondary CCPCH							
PhyCH identity	tsc_S_CCPCH3 (13)							

8.3.30 Configuration of Cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2

The configuration is based on 3GPP TS 34.108 [3], clause 6.10.2.4.3.2a for downlink and 3GPP TS 34.108 [3], clause 6.10.2.4.4.2 for uplink. The configuration is applied to the RAB tests.

The uplink configuration of Cell_FACH_3_SCCPCH_4_FACH Cnfg2 is the same as the uplink configuration of Cell_FACH_2_SCCPCH_StandAlonePCH_2a

Table: Downlink configuration of Cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2: 2nd S-CCPCH

RB Identity	tsc_RB21 (24)	tsc_RB20 (20)	tsc_RB29 (29)	tsc_RB1 (1)	tsc_RB2 (2)	tsc_RB3 (3)	tsc_RB4 (4)	tsc_RB_BCCH_FACH_RAB (-19)
LogCh Type	DTCH	DTCH	CCCH	DCCH	DCCH	DCCH	DCCH	BCCH
LogCh Identity	tsc_DL_DTCH2 (10)	tsc_DL_DTCH1 (7)	tsc_DL_CCCH6 (6)	tsc_DL_DCCH1 (1)	tsc_DL_DCCH2 (2)	tsc_DL_DCCH3 (3)	tsc_DL_DCCH4 (4)	tsc_BCCH7 (7)
RLC mode	AM	AM	UM	UM	AM	AM	AM	TM
MAC priority	1	1	1	2	3	4	5	6
TrCH Type	FACH	FACH	FACH					
TrCH identity	tsc_FACH2 (14)		tsc_FACH1 (13)					
PhyCh Type	Secondary CCPCH							
PhyCH identity	tsc_S_CCPCH2 (10)							

Table: Downlink configuration of Cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2: 1st & 3rd S-CCPCH

RB Identity	tsc_RB23 (23)	tsc_RB22 (22)	tsc_RB0 (0)	tsc_RB_BCCH_FACH (-3)	tsc_RB_PCCH (-2)
LogCh Type	DTCH	DTCH	CCCH	BCCH	PCCH
LogCh Identity	tsc_DL_DTCH3 (9)	tsc_DL_DTCH2 (8)	tsc_DL_CCCH5 (5)	tsc_BCCH6 (6)	tsc_PCCH1 (1)
RLC mode	AM	AM	UM	TM	TM
MAC priority	1	1	1	6	1
TrCH Type	FACH	FACH	FACH		PCH
TrCH identity	tsc_FACH4 (17)		tsc_FACH3 (16)		tsc_PCH1 (12)
PhyCh Type	Secondary CCPCH				Secondary CCPCH
PhyCH identity	tsc_S_CCPCH3 (13)				tsc_S_CCPCH1 (5)

8.3.31 Configuration of Cell_FACH_3_SCCPCH_3_FACH_CTCH_2a

The configuration is based on 3GPP TS 34.108 [3], clause 6.10.2.4.3.2 for downlink and 3GPP TS 34.108 [3], clause 6.10.2.4.4.2 for uplink. The configuration is applied to the RAB tests.

The uplink configuration of Cell_FACH_3_SCCPCH_3_FACH_CTCH_2a is the same as the uplink configuration of Cell_FACH Cell_FACH_3_SCCPCH_4_FACH Cnfg1

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Downlink configuration of Cell_FACH_3_SCCPCH_3_FACH_CTCH_2a : 1st & 2nd S-CCPCH

RB Identity	tsc_RB30 (30)	tsc_RB0 (0)	tsc_RB_BCCH_FACH (-3)	tsc_RB_PCCH (-2)
LogCh Type	CTCH	CCCH	BCCH	PCCH
LogCh Identity	tsc_CTCH1 (11)	tsc_DL_CCCH5 (5)	tsc_BCCH6 (6)	tsc_PCCH1 (1)
RLC mode	UM	UM	TM	TM
MAC priority	7	1	6	1
TrCH Type	FACH	FACH		PCH
TrCH identity	tsc_FACH2 (14)	tsc_FACH1 (13)		tsc_PCH1 (12)
PhyCh Type	Secondary CCPCH			Secondary CCPCH
PhyCH identity	tsc_S_CCPCH2 (10)			tsc_S_CCPCH1 (5)

Downlink configuration of Cell_FACH_3_SCCPCH_3_FACH_CTCH_2a: 3rd S-CCPCH

RB Identity	tsc_RB24 (24)	tsc_RB20 (20)	tsc_RB29 (29)	tsc_RB1 (1)	tsc_RB2 (2)	tsc_RB3 (3)	tsc_RB4 (4)	tsc_RB_BCCH_FACH_RAB (-19)
LogCh Type	DTCH	DTCH	CCCH	DCCH	DCCH	DCCH	DCCH	BCCH
LogCh Identity	tsc_DL_DTCH4(10)	tsc_DL_DTCH1 (7)	tsc_DL_CCCH 6 (6)	tsc_DL_DCCH 1 (1)	tsc_DL_DCCH 2 (2)	tsc_DL_DCCH 3 (3)	tsc_DL_DCCH 4 (5)	tsc_BCCH7 (7)
RLC mode	AM	AM	UM	UM	AM	AM	AM	TM
MAC priority	1	1	1	2	3	4	5	6
TrCH Type	FACH	FACH	FACH					
TrCH identity	tsc_FACH4 (17)		tsc_FACH3 (16)					
PhyCh Type	Secondary CCPCH							
PhyCH identity	tsc_S_CCPCH3 (13)							

B.1.3 NAS Test Suite Parameters Declarations

The following parameters are commonly used in the NAS ATS.

Table B.3: NAS PIXIT

Parameter Name	Description	Type	Default Value	Supported Value
px_AuthRAND_2	A second Random Challenge (128 bits)	BITSTRING	'1010101…10'B	
px_AutocallingBlacklistNumber	Number of B-party numbers that can be stored in the list of blacklisted numbers	INTEGER	20	
px_AutocallingCause1or2	Cause value of category 1 or 2 to be used in TC_17_1_3	INTEGER	18	
px_AutocallingNumber	Called number to be used for auto calling	IA5String	"0613454120"	
px_AutocallingRepeatCat1o	Number of repeat attempt done for the	INTEGER	10	

Parameter Name	Description	Type	Default Value	Supported Value
r2	category 1 or 2 to be used in TC_17_1_3			
px_CC_ServNotSupp	Not supported service selected for Mobile Originated calls and Mobile Terminated calls. The possible values are ("Telephony", "EmergencyCall", "31kHz", "V110", "V120", "PIAFS", "FTM", "X31", "BTM", "MmediaCall")	Services	"BTM"	
px_DTMF_BasicCharSet	TRUE if DMTF Chars 0-9, *, # supported	BOOLEAN	TRUE	
px_DTMF_OtherCharSet	TRUE if DMTF Chars A, B, C, D supported	BOOLEAN	TRUE	
px_DTMF_ToneInd	TRUE if UE support DTMF tone indication	BOOLEAN	TRUE	
px_EmergencyCallNumber	Emergency Number used by UE to initiate an emergency call	EmergencyNumber	"112"	
px_NoNwOrgPDP_ContextSupp	This indicates the number of network originated PDP context supported by the UE	INTEGER (0..7)	7	
px_SecPDP_Support	This indicates if the UE supports Secondary PDP Context or not.	BOOLEAN	TRUE	
~~px_SupportOpModeC~~	~~Paramter is TRUE if UE supports operation mode C. Operation mode C means UE offers PS services only (see 3GPP 23.060 clause 4.1 and 3GPP 24.008 [9])~~	~~BOOLEAN~~	~~TRUE~~	
px_TMSI_2	Second TMSI value	OCTETSTRING	'09876543'O	
px_UuInfo	User-user information for TC 10_3	OCTETSTRING	'01020304'O	
px_Uupd	User-user protocol discriminator for TC 10_3	B8	'00000100'B	
px_PTMSI_2	Second PTMSI used for testing.	OCTETSTRING	'09876543'O	
px_PTMSI_Sig2	Second PTMSI signature used for testing.	OCTETSTRING	'AB1234'O	
px_VTS_AT_CommandSupp	TRUE if the AT command +VTS is supported	BOOLEAN	TRUE	

B.1.4 SMS Test Suite Parameters Declarations

These parameters are used in the SMS ATS.

Table B.4: SMS PIXIT

Parameter Name	Description	Type	Default Value	Supported Value
px_BMC_CB_RepPeriod01	CB repetition period for CB message 1	INTEGER	2	
px_BMC_CB_RepPeriod02	CB repetition period for CB message 2	INTEGER	2	
px_BMC_NoOfBC_Req01	No of broadcasts requested for CB message 1	INTEGER	2	
px_BMC_NoOfBC_Req02	No of broadcasts requested for CB message 2	INTEGER	2	
px_MaxCP_DataRetx	max. number of CP data retransmissions for SMS	INTEGER	3	
px_SMS_CB_Data01	Contents of the first Cell Broadcast Message sent will be converted to an OCTETSTRING	IA5String	"First Cell Broadcast Message"	
px_SMS_CB_Data02	Contents of the second Cell Broadcast Message sent will be converted to an OCTETSTRING	IA5String	"Second Cell Broadcast Message"	
px_SMS_CB_MsgId01	Message Id to be used for the first Cell Broadcast Message sent	B16	'0000000000000001'B	
px_SMS_CB_MsgId02	Message Id to be used for the second Cell Broadcast Message sent	B16	'0000000000000010'B	
px_TC1M	Value for timer TC1M, to be declared by the manufacturer	INTEGER	10000	

B.1.5 RRC_M Test Suite Parameters Declarations

These parameters are used in the RRC and RAB ATS.

Table B.5: RRC and RAB PIXIT

Parameter Name	Description	Type	Default Value	Supported Value
px_DL_MaxCC_TB_bits	Maximum sum of number of bits of all convolutionally coded transport blocks being received at an arbitrary time instant.	MaxNoBits	b163840	
px_DL_MaxCCTrCH	Maximum number of Simultaneous CCTrCH for downlink	MaxSimultaneousCCTrCH_Count	8	
px_DL_MaxTB_bits	Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant.	MaxNoBits	b163840	
px_DL_MaxTC_TB_bits	Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant.	MaxNoBits	b163840	
px_DL_MaxTF	Maximum number of TF for downlink	MaxNumberOfTF	tf1024	
px_DL_MaxTFS	Maximum number of TFC in the TFCS for downlink	MaxNumberOfTFC_DL	tfc1024	
px_DL_MaxTrCHs	Maximum number of simultaneous transport channels for downlink.	MaxSimultaneousTransChsDL	e32	
px_DL_MaxTTI_TB	Maximum total number of transport blocks received within TTIs that end within the same 10 ms interval.	MaxTransportBlocksDL	tb512	
~~px_DL_TC~~	~~Support for turbo decoding for downlink.~~	~~BOOLEAN~~	~~TRUE~~	

Parameter Name	Description	Type	Default Value	Supported Value
px_MaxAM_EntityNumberRLC_Cap	Maximum AM Entity Number for RLC.	MaximumAM_EntityNumberRLC_Cap	am30	
px_MaxHcContextSpace	MaxHcContextSpace if RFC 2507 [**Error! Reference source not found.**] is supported.	MaxHcContextSpace	by512	
px_MaxNoDPCH_PDSCH_Codes	Part of DL_PhysChCapabilityFDD. INTEGER (1..8).	INTEGER	8	
px_MaxNoDPDCH_BitsTransmitted	Part of UL_PhysChCapabilityFDD.	MaxNoDPDCH_BitsTransmitted	b57600	
px_MaxNoPhysChBitsReceived	Part of DL_PhysChCapabilityFDD.	MaxNoPhysChBitsReceived	b76800	
px_MaxNoSCCPCH_RL	Part of SimultaneousSCCPCH_DPCH_Reception.	MaxNoSCCPCH_RL	rl1	
px_MaxRLC_WindowSize	Maximum RLC window size.	MaximumRLC_WindowSize	mws4095	
~~px_SupportOfGSM~~	~~GSM supported by UE~~	~~BOOLEAN~~	~~TRUE~~	
~~px_SupportOfMulticarrier~~	~~Part of MultiRAT_Capability~~.	~~BOOLEAN~~	~~TRUE~~	
px_TotalRLC_AM_BufferSize	Total RLC AM buffer size.	TotalRLC_AM_BufferSize	NA	
px_UE_PowerClass	UE_PowerClass value.	UE_PowerClass	1	
px_UL_MaxCC_TB_bits	Maximum sum of number of bits of all convolutionally coded transport blocks being transmitted at an arbitrary time instant.	MaxNoBits	b163840	
px_UL_MaxTB_bits	Maximum sum of number of bits of all transport blocks being transmitted at an arbitrary time instant.	MaxNoBits	b163840	
px_UL_MaxTC_TB_bits	Maximum sum of number of bits of all turbo coded transport blocks being transmitted at an arbitrary time instant.	MaxNoBits	b163840	
px_UL_MaxTF	Maximum number of TF for uplink.	MaxNumberOfTF	tf1024	
px_UL_MaxTFS	Maximum number of TFC in the TFCS for uplink.	MaxNumberOfTFC_DL	tfc1024	
px_UL_MaxTrCHs	Maximum number of simultaneous transport channels for uplink.	MaxSimultaneousTransChsUL	e32	
px_UL_MaxTTI_TB	Maximum total number of transport blocks transmitted within TTIs that start at the same time.	MaxTransportBlocksUL	tb512	
px_UL_TC	Support for turbo encoding for uplink.	BOOLEAN	TRUE	
px_UE_PositioningNetworkAssistedGPS_Sup	UE positioning capability: supports network assisted by GPS	NetworkAssistedGPS_Supported	networkBased	
~~px_UE_PositioningIPDL_Sup~~	~~UE positioning capability: support for IPDL~~	~~BOOLEAN~~	~~TRUE~~	
~~px_UE_PositioningGPS_TimingOfCellFramesSup~~	~~UE positioning capability: the UE supports the GPS timing of cell frames~~	~~BOOLEAN~~	~~TRUE~~	
~~px_UE_PositioningBasedOTDOA_Sup~~	~~UE positioning capability: the Based OTDOA is supporting by UE~~	~~BOOLEAN~~	~~TRUE~~	
~~px_UE_PositioningStandaloneLocMethodsSup~~	~~UE positioning capability: the standalone location method is supporting by UE~~	~~BOOLEAN~~	~~TRUE~~	

B.1.10 RLC & MAC Test Suite Parameters Declarations

These parameters are used in the MAC ATS.

Table B.10: RLC & MAC PIXIT

Parameter Name	Description	Type	Default Value	Supported Value
px_NumOfSegInPagResOrServReq	This Pixit is used in MAC test cases 7.1.1.2, 7.1.1.3, 7.1.1.4, 7.1.1.5 and 7.1.1.8 This indicates the number of RLC segments the Paging Response (CS Domain) or Service Request (PS domain) will be segmented in.	INTEGER	2	
px_RLC_SDU_bufferingOrDiscard	Is used in RLC TC 7.2.3.13, indicating the way to handle RLC SDU data for UL transmission when the transmission window is full	INTEGER (1 for buffering, 2 for dscard)	1	