

3GPP TSG CN Plenary Meeting #26
8th – 10th December 2004 Athens, Greece.

NP-040543

Source: TSG CN WG4
Title: Corrections on Network Sharing
Agenda item: 9.19
Document for: APPROVAL

Spec	CR	Rev	Doc-2nd-Level N4-040	Phase	Subject	Cat	Ver_C
23.008	135		1361	Rel-6	Inclusion of selected CN operator ID parameter	B	6.3.0

3GPP TSG-CN WG4 Meeting #25

N4-041361

Seoul, Korea. 15th to 19th November 2004.

CR-Form-v7.1

CHANGE REQUEST

⌘ **23.008** CR **135** ⌘ rev **1** ⌘ Current version: **6.3.0** ⌘

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

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

Title:	⌘ Inclusion of selected CN operator ID parameter		
Source:	⌘ CN4		
Work item code:	⌘ NTShar	Date:	⌘ 01/11/2004
Category:	⌘ B	Release:	⌘ Rel-6
	<p>Use <i>one</i> of the following categories:</p> <p>F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>		<p>Use <i>one</i> of the following releases:</p> <p>Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)</p>

Reason for change: ⌘ Network Sharing supporting UEs shall inform the RNC of the selected core network operator in a shared network. Then the RNC relays this information to the core network node. The MSC/VLR and the SGSN should store the identity of the selected core network operator as a temporary subscriber data for the purpose of e.g. charging. This data needs to be transferred to the VLR if the Gs interface is installed.

The core network operator is identified by a PLMN-id (MCC+MNC) as described in TS23.251.

Summary of change: ⌘ Addition of the reference to TS 23.251

Inclusion of the selected CN operator ID parameter in the subscriber data related to roaming and in the summary tables.

Consequences if not approved: ⌘ Possibly incorrect CDR generation by the shared CN node in a GWCN configuration.

Clauses affected: ⌘ 0.1, 2.4, 5.1, 5.2

Other specs affected:	⌘	<table border="1"><tr><td>Y</td><td>N</td></tr><tr><td>X</td><td></td></tr></table>	Y	N	X		Other core specifications	⌘ TS 23.060-517
	Y	N						
	X							
	<table border="1"><tr><td></td><td>X</td></tr></table>		X	Test specifications				
	X							
	<table border="1"><tr><td></td><td>X</td></tr></table>		X	O&M Specifications				
	X							

Other comments: ☹

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <http://www.3gpp.org/specs/CR.htm>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked ☹ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

*****FIRST CHANGE*****

0.1 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 22.002: "Circuit Bearer Services (BS) supported by a Public Land Mobile Network (PLMN)".
- [3] 3GPP TS 22.003: "Circuit Teleservices supported by a Public Land Mobile Network (PLMN)".
- [4] 3GPP TS 22.004: "General on supplementary services".
- [5] 3GPP TS 23.003: "Numbering, addressing and identification".
- [6] 3GPP TS 23.007: "Restoration procedures".
- [7] 3GPP TS 23.009: "Handover procedures".
- [8] 3GPP TS 23.012: "Location Management Procedures".
- [9] 3GPP TS 23.015: "Technical realization of Operator Determined Barring (ODB)".
- [10] 3GPP TS 23.040: "Technical realization of the Short Message Service (SMS)".
- [11] 3GPP TS 22.060: "General Packet Radio Service (GPRS); Service description; Stage 1".
- [12] 3GPP TS 23.067: "Enhanced Multi-Level Precedence and Preemption service (EMLPP); Stage 2".
- [13] 3GPP TS 23.078: "Customised Applications for Mobile network Enhanced Logic (CAMEL); Stage 2".
- [14] 3GPP TS 23.081: "Line identification supplementary services; Stage 2".
- [15] 3GPP TS 23.082: "Call Forwarding (CF) Supplementary Services; Stage 2".

- [16] 3GPP TS 23.083: "Call Waiting (CW) and Call Hold (HOLD) Supplementary Services; Stage 2".
- [17] 3GPP TS 23.084: "Multi Party (MPTY) Supplementary Service; Stage 2".
- [18] 3GPP TS 23.085: "Closed User Group (CUG) Supplementary Service; Stage 2".
- [19] 3GPP TS 23.086: "Advice of Charge (AoC) Supplementary Service; Stage 2".
- [20] 3GPP TS 23.088: "Call Barring (CB) Supplementary Service; Stage 2".
- [21] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service Description; Stage 2".
- [22] 3GPP TS 23.078: "Customised Applications for Mobile network Enhanced Logic (CAMEL); Stage 2".
- [23] 3GPP TS 23.090: "Unstructured Supplementary Service Data (USSD); Stage 2".
- [24] 3GPP TS 23.116: "Super-Charger Technical Realization; Stage 2".
- [25] 3GPP TS 23.135: "Multicall supplementary service; Stage 2".
- [26] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core network protocols; Stage 3".
- [27] 3GPP TS 29.002: "Mobile Application Part (MAP) specification".
- [28] 3GPP TS 29.007: "General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)".
- [29] 3GPP TS 29.060: "General Packet Radio Service (GPRS); GPRS Tunnelling Protocol (GTP) across the Gn and Gp interface".
- [30] 3GPP TS 42.032: "Digital cellular telecommunications system (Phase 2+); Immediate Service Termination (IST) Service description - Stage 1".
- [31] 3GPP TS 43.020: "Digital cellular telecommunications system (Phase 2+); Security-related network functions".
- [32] 3GPP TS 43.035: "Digital cellular telecommunications system (Phase 2+); Immediate Service Termination (IST); Stage 2".
- [33] 3GPP TS 43.068: "Digital cellular telecommunications system (Phase 2+); Voice Group Call Service (VGCS); Stage 2".
- [34] 3GPP TS 43.069: "Digital cellular telecommunications system (Phase 2+); Voice Broadcast Service (VBS); Stage 2".
- [35] 3GPP TS 23.071: "Location Services (LCS); Functional Description; Stage 2".
- [36] GSM 12.03: "Digital cellular telecommunications system (Phase 2+) (GSM); Security management".
- [37] GSM 12.08: "Digital cellular telecommunications system (Phase 2+) (GSM); Subscriber and equipment trace".
- [38] ITU-T Recommendation Q.763: "Signalling System No. 7 - ISDN User Part formats and codes".
- [39] ANSI T1.113: "Signalling System No7 (SS7); Integrated Services Digital Network (ISDN) User Part".
- [40] 3GPP TS 32.005: "Telecommunication Management; Charging and billing; 3G call and event data for the Circuit Switched (CS) domain".
- [41] 3GPP TS 32.015: "Telecommunication Management; Charging and billing; 3G call and event data for the Packet Switched (PS) domain".
- [42] 3GPP TS 23.228: "IP Multimedia Subsystem (IMS); Stage 2".

- [43] 3GPP TS 29.228: "IP Multimedia (IM) Subsystem Cx and Dx interfaces; Signalling flows and message contents".
- [44] 3GPP TS 29.229: "Cx and Dx Interfaces based on the Diameter protocol; Protocol details".
- [45] IETF RFC 3261: "SIP: Session Initiation Protocol".
- [46] IETF RFC 2396: "Uniform Resource Identifiers (URI): Generic Syntax".
- [47] Void
- [48] IETF RFC 2486: "The Network Access Identifier".
- [49] 3GPP TS 33.203: "3G security; Access security for IP-based services".
- [50] 3GPP TS 23.002: "Network Architecture".
- [51] draft-ietf-aaa-diameter-08.txt: "Diameter Base Protocol", work in progress".
- [52] 3GPP TS 33.102: "3G Security; Security Architecture".
- [53] 3GPP TS 23.218: "IP Multimedia (IM) session handling; IM call model; Stage 2".
- [54] 3GPP TS 29.328: "IP Multimedia Subsystem (IMS) Sh interface signalling flows and message contents (Release 5)".
- [55] 3GPP TS 23.278: "Customised Applications for Mobile network Enhanced Logic (CAMEL) - IP Multimedia System (IMS) interworking; Stage 2".
- [56] 3GPP TS 23.271: "".
- [57] 3GPP TS 23.221: " Architectural requirements ".
- [58] 3GPP TS 33.220: "Generic Authentication Architecture (GAA);Generic bootstrapping architecture".
- [59] 3GPP TS 29.109 "Zh and Zn Interfaces based on the Diameter protocol; Protocol details".
- [60] IETF RFC 3548: "The Base16, Base32, and Base64 Data Encodings".
- [X] [3GPP TS 23.251: "Network Sharing; Architecture and Functional Description"](#).

*****NEXT CHANGES*****

2.4 Data related to roaming

2.4.19 Selected CN operator ID

The selected CN operator ID indicates which core network operator Network Sharing supporting UEs have chosen in a shared network. The use of this data is described in 3GPP TS 23.251 [X]. And this data is identified by a PLMN ID (MCC+MNC) as described in 3GPP TS 23.003 [5].

The selected CN operator ID is temporary subscriber data stored conditionally in the VLR and the SGSN in a shared network for non-GPRS and GPRS services respectively.

This data is also stored in VLR for GPRS services if the Gs interface is installed.

*****NEXT CHANGES*****

5 Accessing subscriber data

It shall be possible to retrieve or store subscriber data concerning a specific MS from the HSS by use of each of the following references:

- International Mobile Subscriber Identity (IMSI);
- Mobile Station ISDN Number (MSISDN).

It shall be possible to retrieve or store subscriber IP Multimedia service data concerning a specific MS from the HSS by use of each of the following references:

- Private User Identity;
- Public Identity.

It shall be possible to retrieve or store subscriber data concerning a specific MS from the VLR by use of each of the following references:

- International Mobile Subscriber Identity (IMSI);
- Temporary Mobile Subscriber Identity (TMSI).

It shall be possible to retrieve or store subscriber data concerning a specific MS from the SGSN by use of each of the following references:

- International Mobile Subscriber Identity (IMSI);
- Packet Temporary Mobile Subscriber identity (P-TMSI).

It shall be possible to retrieve or store subscriber data concerning a specific MS from the GGSN by use of the following reference:

- International Mobile Subscriber Identity (IMSI).

See clause 4 for explanation of M, C, T and P in table 1, table 2 and table 3.

5.1 Non-GPRS Network Access Mode Data Storage

Table 5.1: Overview of data stored for non-GPRS Network Access Mode (CS)

PARAMETER	SUBCLAUSE	HLR	VLR	TYPE
IMSI	2.1.1.1	M	M	P
Network Access Mode	2.1.1.2	M	-	P
International MS ISDN number	2.1.2	M	M	P
multinumbering MSISDNs	2.1.3	C	-	P
Basic MSISDN indicator	2.1.3.1	C	-	P
MSISDN-Alert indicator	2.1.3.2	C	-	P
TMSI	2.1.4	-	C	T
LMSI	2.1.8	C	C	T
Mobile Station Category	2.2.1	M	M	P
LMU Identifier	2.2.2	C	C	P
IMEISV	2.2.3	C	C	T
RAND, SRES and Kc	2.3.1	-	C	T
RAND, XRES, CK, IK and AUTN	2.3.2	M	C	T
Ciphering Key Sequence Number	2.3.3	-	M	T
Key Set Identifier (KSI)	2.3.4	-	M	T
MSRN	2.4.1	-	C	T
Location Area Identity	2.4.2	-	M	T
VLR number	2.4.5	M	-	T
MSC number	2.4.6	M	C	T
HLR number	2.4.7	-	C	T
Subscription restriction	2.4.10	C	-	P
RSZI lists	2.4.11.1	C	-	P
Zone Code List	2.4.11.2	-	C	P
MSC area restricted flag	2.4.12	M	-	T
LA not allowed flag	2.4.13	-	M	T
ODB-induced barring data	2.4.15.1	C	-	T
Roaming restriction due to unsupported feature	2.4.15.2	M	M	T
Cell Global ID or Service Area ID	2.4.16	-	C	T
LSA Identity	2.4.17.1	C	C	P
LSA Priority	2.4.17.2	C	C	P
LSA Preferential Access Indicator	2.4.17.2A	C	C	P
LSA Active Mode Support Indicator	2.4.17.2B	C	C	P
LSA Only Access Indicator	2.4.17.3	C	C	P
LSA Active Mode Indicator	2.4.17.4	C	C	P
VPLMN Identifier	2.4.17.5	C	-	P
Access Restriction Data	2.4.18	C	C	P
Selected CN operator ID	2.4.19	-	C	T
Provision of bearer service	2.5.1	M	M	P
Provision of teleservice	2.5.2	M	M	P
BC allocation	2.5.3	C	C	P
IMSI detached flag	2.7.1	-	C	T
Confirmed by Radio Contact indicator	2.7.4.1	-	M	T
Subscriber Data Confirmed by HLR indicator	2.7.4.2	-	M	T
Location Information Confirmed in HLR indicator	2.7.4.3	-	M	T
Check SS indicator	2.7.4.4	M	-	T
MS purged for non-GPRS flag	2.7.5	M	-	T
MNRR	2.7.7	C	-	T
Subscriber status	2.8.1	C	C	P
Barring of outgoing calls	2.8.2.1	C	C	P
Barring of incoming calls	2.8.2.2	C	-	P
Barring of roaming	2.8.2.3	C	-	P
Barring of premium rate calls	2.8.2.4	C	C	P
Barring of supplementary service management	2.8.2.5	C	C	P
Barring of registration of call forwarding	2.8.2.6	C	-	P
Barring of invocation of call transfer	2.8.2.7	C	C	P
Operator determined barring PLMN-specific data	2.8.3	C	C	P
Notification to CSE flag for ODB	2.8.4	C	-	T
gsmSCF address list for ODB	2.8.5	C	-	P
Handover Number	2.9.1	-	C	T
Messages Waiting Data	2.10.1	C	-	T
Mobile Station Not Reachable Flag	2.10.2	C	M	T
Memory Capacity Exceeded Flag	2.10.3	C	-	T

PARAMETER	SUBCLAUSE	HLR	VLR	TYPE
Trace Reference	2.11.1	C	C	P
Trace Type	2.11.2	C	C	P
Operations Systems Identity	2.11.3	C	C	P
HLR Trace Type	2.11.4	C	-	P
MAP Error On Trace	2.11.5	C	-	T
Trace Activated in VLR	2.11.6	C	C	T
Foreign Subscriber Registered in VLR	2.11.7	-	C	P
VGCS Group Membership List	2.12.1	C	C	P
VBS Group Membership List	2.12.2	C	C	P
Broadcast Call Initiation Allowed List	2.12.2.1	C	C	P
Originating CAMEL Subscription Information (O-CSI)	2.14.1.1/3.1	C	C	P
Terminating CAMEL Subscription Information (T-CSI)	2.14.1.2	C	-	P
VMSC Terminating CAMEL Subscription Information (VT-CSI)	2.14.1.2/3.2	C	C	P
Location Information/Subscriber state Information	2.14.1.3	C	-	P
USSD CAMEL subscription information(U-CSI)	2.14.1.4	C	-	P
SS invocation notification (SS-CSI)	2.14.1.5/3.2	C	C	P
Translation information flag(TIF-CSI)	2.14.1.6/3.6	C	C	P
Dialled service CAMEL Subscription Information (D-CSI)	2.14.1.11/3.7	C	C	P
USSD General CAMEL service information (UG-CSI)	2.14.2.4	C	-	P
O-CSI Negotiated CAMEL Capability Handling	2.14.2.1	C		T
SS-CSI Negotiated CAMEL Capability Handling	2.14.2.1	C		T
VT-CSI Negotiated CAMEL Capability Handling	2.14.2.1	C		T
Short Message Service CAMEL Subscription Information(MO-SMS-CSI)	2.14.1.8/2.14.3.5	C	C	P
Short Message Service CAMEL Subscription Information(MT-SMS-CSI)	2.14.1.9/2.14.3.6	C	C	P
MO-SMS-CSI VLR Negotiated CAMEL Capability Handling	2.14.2.1	C		T
MT-SMS-CSI VLR Negotiated CAMEL Capability Handling	2.14.2.1	C		P
M-CSI Negotiated CAMEL Capability Handling	2.14.2.1	C		T
VLR Supported CAMEL Phases	2.14.2.3	C		T
GsmSCF address for CSI	2.14.2.4	C		P
VLR Offered CAMEL4 CSIs	2.14.2.2A	C		T
IST Alert Timer	2.15.1	C	C	P
Privacy Exception List	2.16.1.1	C	C	P
GMLC Numbers	2.16.1.2	C	C	P
MO-LR List	2.16.1.3	C	C	P
Service Types	2.16.1.4	C	C	P
Age Indicator	2.17.1	C	C	T
CS Allocation/Retention priority	2.18.1	C	C	P

5.2 GPRS Network Access Mode Storage

Table 5.2: Overview of data used for GPRS Network Access Mode

PARAMETER	Subclause	HLR	VLR	SGSN	GGSN	TYPE
IMSI	2.1.1.1	M	M	M	M	P
Network Access Mode	2.1.1.2	M	-	C note1	-	P
International MS ISDN number	2.1.2	M	M	M	M	T
multinumbers MSISDNs	2.1.3	C	-	-	-	T
Basic MSISDN indicator	2.1.3.1	C	-	-	-	T
MSISDN-Alert indicator	2.1.3.2	C	-	-	-	T
P-TMSI	2.1.5	-	-	C	-	T
TLLI	2.1.6	-	-	C	-	T
Random TLLI	2.1.7	-	-	C	-	T
IMEI	2.1.9	-	-	C	-	T
IMEISV	2.2.3	C	-	C	-	T
RAND/SRES and Kc	2.3.1	-	-	C	-	T
RAND, XRES, CK, IK, AUTN	2.3.2	M	-	C	-	T
Ciphering Key Sequence Number	2.3.3	-	-	M	-	T
Key Set Identifier (KSI)	2.3.4	-	-	M	-	T
Selected Ciphering Algorithm	2.3.5	-	-	M	-	T
Current Kc	2.3.6	-	-	M	-	T
P-TMSI Signature	2.3.7	-	-	C	-	T
Routing Area Identity	2.4.3	-	-	M	-	T
VLR Number	2.4.5	M	-	C note2	-	T
SGSN Number	2.4.8.1	M	C note2	-	-	T
GGSN Number	2.4.8.2	M	-	-	-	P
RSZI Lists	2.4.11.1	C	-	-	-	P
Zone Code List	2.4.11.2	-	-	C	-	P
RA not allowed flag	2.4.14a	-	-	M	-	T
SGSN area restricted flag	2.4.14	M	-	-	-	T
Roaming Restricted in the SGSN due to unsupported feature	2.4.15.3	M	-	M	-	T
Cell Global ID or Service Area ID	2.4.16	-	-	C	-	T
LSA Identity	2.4.17.1	C	C	C	-	P
LSA Priority	2.4.17.2	C	C	C	-	P
LSA Preferential Access Indicator	2.4.17.2A	C	C	C	-	P
LSA Active Mode Support Indicator	2.4.17.2B	C	C	C	-	P
LSA Only Access Indicator	2.4.17.3	C	C	C	-	P
LSA Active Mode Indicator	2.4.17.4	C	C	C	-	P
VPLMN Identifier	2.4.17.5	C	-	-	-	P
Access Restriction Data	2.4.18	C	-	C	-	P
Selected CN operator ID	2.4.19	-	C note2	C	-	I
Provision of teleservice	2.5.2	C	-	C	-	P
Transfer of SM option	2.5.4	M	-	-	-	P
MNRG	2.7.2	M	-	M	M	T
MM State	2.7.3	-	-	M	-	T
Subscriber Data Confirmed by HLR Indicator	2.7.4.2	-	-	M	-	T
Location Info Confirmed by HLR Indicator	2.7.4.3	-	-	M	-	T
MS purged for GPRS flag	2.7.6	M	-	-	-	T
MNRR	2.7.7	C	-	-	-	T
Subscriber Status	2.8.1	C	-	C	-	P
Barring of outgoing calls	2.8.2.1	C	-	-	-	P
Barring of roaming	2.8.2.3	C	-	C	-	P
Barring of Packet Oriented Services	2.8.2.8	C	-	C	-	P
ODB PLMN-specific data	2.8.3	C	-	C	-	P
Notification to CSE flag for ODB	2.8.4	C	-	-	-	T
gsmSCF address list for ODB	2.8.5	C	-	-	-	P
Trace Activated in SGSN	2.11.7	C	-	C	-	P
PDP Type	2.13.1	C	-	C	M	P
PDP Address	2.13.2	C	-	C	M	P
NSAPI	2.13.3	-	-	C	C	T
PDP State	2.13.4	-	-	C	-	T
New SGSN Address	2.13.5	-	-	C	-	T
Access Point Name	2.13.6	C	-	C	C	P/T
GGSN Address in Use	2.13.7	-	-	C	-	T
VPLMN Address Allowed	2.13.8	C	-	C	-	P

PARAMETER	Subclause	HLR	VLR	SGSN	GGSN	TYPE
Dynamic Address	2.13.9	-	-	-	C	T
SGSN Address	2.13.10	-	-	-	M	T
GGSN-list	2.13.11	M	-	-	-	T
Quality of Service Subscribed	2.13.12	C	-	C	-	P
Quality of Service Requested	2.13.13	-	-	C	-	T
Quality of Service Negotiated	2.13.14	-	-	C	M	T
SND	2.13.15	-	-	C	C	T
SNU	2.13.16	-	-	C	C	T
DRX Parameters	2.13.17	-	-	M	-	T
Compression	2.13.18	-	-	C	-	T
NGAF	2.13.19	-	-	C note2	-	T
Classmark	2.13.20	-	-	M	-	T
TEID	2.13.21	-	-	C	C	T
Radio Priority	2.13.22	-	-	C	-	T
Radio Priority SMS	2.13.23	-	-	C	-	T
PDP Context Identifier	2.13.24	C	-	C	-	T
PDP Context Charging Characteristics	2.13.25	C	-	C	C	P
GPRS CAMEL Subscription Information (GPRS-CSI)	2.14.1.10/2.14.4.4	C	-	C	-	C
MO Short Message Service CAMEL Subscription Information(MO-SMS-CSI)	2.14.1.8/2.14.4.1	C	-	C	-	C
MT Short Message Service CAMEL Subscription Information(MT-SMS-CSI)	2.14.1.9/2.14.4.2	C	-	C	-	C
MO-SMS-CSI SGSN Negotiated CAMEL Capability Handling	2.14.2.1	C	-	-	-	P
MT-SMS-CSI SGSN Negotiated CAMEL Capability Handling	2.14.2.1	C	-	-	-	P
Mobility Management for GPRS event notification (MG-CSI)	2.14.1.12/2.14.4.4	C	-	C	-	C
MG-CSI Negotiated CAMEL Capability Handling	2.14.2.1	C	-	-	-	P
GPRS-CSI Negotiated CAMEL Capability Handling	2.14.2.1	C	-	-	-	T
SGSN Supported CAMEL Phases	2.14.2.3	C	-	-	-	T
SGSN Offered CAMEL4 CSIs	2.14.2.2A	C	-	-	-	T
GsmSCF address for CSI	2.14.2.4	C	-	-	-	P
Age Indicator	2.16.1	C	-	C	-	T
Subscribed Charging Characteristics	2.19.1	C	-	C	C	P
Privacy Exception List	2.16.1.1	C	-	C	-	P
GMLC Numbers	2.16.1.2	C	-	C	-	P
MO-LR List	2.16.1.3	C	-	C	-	P
Service Types	2.16.1.4	C	-	C	-	P

The HLR column indicates only GPRS related use, i.e. if the HLR uses a parameter in non-GPRS Network Access Mode but not in GPRS Network Access Mode, it is not mentioned in this table 2.

NOTE 1: This parameter is relevant in the SGSN only when the Gs interface is installed.

NOTE 2: The VLR column is applicable if Gs interface is installed. It only indicates GPRS related data to be stored and is only relevant to GPRS subscribers registered in VLR.

For special condition of storage see in clause 2. See clause 4 for explanation of M, C, T and P in table 5.2.

*******END of CHANGES*******