
Source: SA1
Title: CR to 22.228 on GUP for IMS subscription management (Rel-6)
Document for: Approval
Agenda Item: 7.1.3

SA Doc	Spec	CR	Rev	Phase	Cat	Subject	Old Vers	New Vers	SA1 Doc
SP-030028	22.228	018	-	Rel-6	B	GUP for IMS subscription management	6.1.0	6.2.0	S1-030182

CR-Form-v7

CHANGE REQUEST

⌘ **22.228 CR 018** ⌘ rev **-** ⌘ Current version: **6.1.0** ⌘

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

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

Title:	⌘ GUP for IMS Subscription Management		
Source:	⌘ SA1 (Nokia)		
Work item code:	⌘ GUP	Date:	⌘ 22/01/2003
Category:	⌘ B	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> 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:	⌘ Standardised creation, usage and management of the user related data is beneficial for the management and value added services. This has been stated by 3GPP SA5 also in the TS 32.140 for Subscription management requirements which also mentions HSS as one central element in subscription management. The Generic User Profile (GUP) provides for the generic data model and interfaces for user data handling. The IMS subscription data stored in HSS is one case where GUP can be well applied. The HSS has the Sh interface but its scope is limited in a way that it cannot fulfill e.g. all the management needs.
Summary of change:	⌘ Generic User Profile (GUP) is added to clause 2 'References' and clause 3 'Definitions and abbreviations'. A requirement is added to clause 6 'Standardised service capability approach' that there shall be standardised data and mechanisms which allow the IM CN Subsystem user related data to be managed and read. It is mentioned that GUP provides these mechanisms. Additionally document type of VHE stage 1 specification is corrected from TS to TR in clause 2.
Consequences if not approved:	⌘ No standard interface to HSS data for management purposes, or for other tasks that go beyond the Sh interface towards application servers.

Clauses affected:	⌘ 2.1, 3.2, 6										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	X			X		X	Other core specifications Test specifications O&M Specifications	⌘ 23.228
Y	N										
X											
	X										
	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 modified section

2 References

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

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

2.1 Normative references

- | | |
|------|--|
| [1] | 3GPP TS 22.003: " CS Teleservices supported by a PLMN". |
| [2] | Void |
| [3] | Void |
| [4] | Void |
| [5] | 3GPP TS 22.101: "Service principles". |
| [6] | Void |
| [7] | 3GPP TR TS 22.121: "3 rd Generation Partnership Project; Technical Specification Group Services and System Aspects; The Virtual Home Environment" |
| [8] | Void |
| [9] | RFC 3261: "SIP: Session Initiation Protocol" |
| [10] | 3GPP TS 22.078: "3 rd Generation Partnership Project; Customised Applications for Mobile network Enhanced Logic (CAMEL); Service definition - Stage 1" |
| [11] | 3GPP TS 22.057: "3 rd Generation Partnership Project; Mobile Execution Environment (MExE); Service description, Stage 1" |
| [12] | 3GPP TS 22.038: "3 rd Generation Partnership Project; Technical Specification Group Services and System Aspects; USIM/SIM Application Toolkit (USAT/SAT); Service description; Stage 1" |
| [13] | 3GPP TS 22.127: "3 rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Stage 1 Service Requirement for the Open Service Access (OSA)" |
| [14] | 3GPP TR 21.905 : "Vocabulary for 3GPP specifications" |
| [15] | RFC2806: "URLs for telephone calls" |
| [16] | 3GPP TS 22.240: "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Service Aspects; Stage 1 Service Requirement for the 3GPP Generic User Profile (GUP)" |

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this TS the following definitions apply:

3GPP Generic User Profile: [3GPP Generic User Profile \(GUP\) is the collection of user related data which affects the way in which an individual user experiences services and which may be accessed in a standardised manner.](#)

Basic Voice Call: A Basic Voice Call (BVC) is a call that conveys only a speech component. The definition of the BVC pertains only to the boundary between the IMS and the CS/PSTN. If more than one IMS party is involved in a communication with a PSTN party/parties, the communication between the IMS parties shall not be adversely impacted by the presence of a PSTN party. Please note that this boundary may still be subject to regulatory requirements associated with communications with the PSTN including, but not limited to, lawful interception of voice calls and number portability.

IM CN subsystem: (IP Multimedia CN subsystem) comprises of all CN elements for the provision of IP multimedia applications over IP multimedia sessions

IP multimedia application: an application that handles one or more media simultaneously such as speech, audio, video and data (e.g. chat text, shared whiteboard) in a synchronised way from the user's point of view. A multimedia application may involve multiple parties, multiple connections, and the addition or deletion of resources within a single IP multimedia session. A user may invoke concurrent IP multimedia applications in an IP multimedia session.

IP multimedia service: an IP multimedia service is the user experience provided by one or more IP multimedia applications.

IP multimedia session: an IP multimedia session is a set of multimedia senders and receivers and the data streams flowing from senders to receivers. IP multimedia sessions are supported by the IP multimedia CN Subsystem and are enabled by IP connectivity bearers (e.g. GPRS as a bearer). A user may invoke concurrent IP multimedia sessions.

Local service: See definition in [14].

3.2 Abbreviations

For the purposes of this TS the following abbreviations apply;

API	Application Programming Interface
BVC	Basic Voice Call
CAMEL	Customised Application for Mobile Enhanced Logic
CN	Core Network
CS	Circuit Switched
GPRS	General Packet Radio Service
GUP	Generic User Profile
IM	IP Multimedia
IP	Internet Protocol
MExE	Mobile Execution Environment
OSA	Open Service Architecture
OA&M	Operations, Administration and Maintenance
QoS	Quality of Service
SAT	SIM Application Toolkit
SIP	Session Initiation Protocol
UE	User Equipment
VHE	Virtual Home Environment
WWW	World Wide Web

End of first modified section**Second modified section**

6 Standardised service capability approach

IP multimedia applications shall, as a principle, not be standardised, allowing operator specific variations. It shall be possible to enable rapid service creation and deployment using service capabilities.

It is important that commercially available IP multimedia applications are supported. In general compatibility shall be with these IP multimedia applications instead of building 3GPP-specific solutions.

The following options shall be available in the 3GPP standards to enable service delivery:

- an architectural framework shall be created that enables maximum flexibility in the end user device and network servers, similar in concept to that used in the Internet.

This framework shall enable an operator to efficiently deploy IP multimedia applications in a network-agnostic manner without having to wait for these applications or additional enabling technology, to be standardised in 3GPP.

- service capabilities (enhanced to control IP multimedia applications), which will allow IP multimedia applications to be deployed in a vendor independent manner

CAMEL [10], MExE [11], SAT [12] and OSA [13], which are the identified service capabilities of VHE in 22.121 [7], should be improved to support IP multimedia applications, e.g. additions to APIs, service capability features, service capability servers, user profile etc.

- [the IM CN Subsystem user related data to be stored in a standardised format and to be managed and accessed using standardised mechanisms of the 3GPP Generic User Profile \(GUP\) \[16\].](#)
- mechanisms which allow the network or the application to understand the limitations of the mobile and thereby take appropriate actions.

Note: There is a concern that with a large variety of toolkits to create applications, service interworking between terminals and networks may be compromised and needs to be addressed.

End of second modified section