

Source: TSG SA WG2
Title: CRs on 23.240 (GUP Stage 2)
Agenda Item: 7.2.3

The following Change Requests (CRs) have been approved by TSG SA WG2 and are requested to be approved by TSG SA plenary #24.
Note: the source of all these CRs is now S2, even if the name of the originating company(ies) is still reflected on the cover page of all the attached CRs.

Tdoc #	Title	Spec	CR #	cat	Versi on in	REL	WI	S2 meeting	Clauses affected
S2-041561	GUP Server in Home operator network	23.240	017r1	F	6.3.0	6	GUP	S2 #39	4.2.1
S2-041562	Rp Intra-operator interface	23.240	018r1	F	6.3.0	6	GUP	S2 #39	4.2.4
S2-041563	GUP Authentication failure	23.240	019r1	F	6.3.0	6	GUP	S2 #39	4.3.9, 4.4.10
S2-042054	Removal of editor's note on existing profile components	23.240	020	F	6.3.0	6	GUP	S2 #40	4.4
S2-042169	Addition of an example in Annex A	23.240	021r1	F	6.3.0	6	GUP	S2 #40	Annex A
S2-042205	Clarification of requirement for component location management	23.240	022r2	B	6.3.0	6	GUP	S2 #40	4.2.1.2

3GPP TSG-SA2 Meeting #39
 Shenzhen, China, 19th to 23th April 2004

Tdoc #S2-041561

CR-Form-v7
CHANGE REQUEST
⌘ 23.240 CR 17 ⌘ 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:	⌘ GUP Server in Home operator network		
Source:	⌘ Orange		
Work item code:	⌘ GUP	Date:	⌘ 19/03/2004
Category:	⌘ F	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:	⌘ In TS 22.240 section 4.2, it is required: "Within the home network, functionality exists that is able to locate GUP components, thereby making applications unaware of the actual location of the components. The administration and management of the data associated with this functionality is under the control of the home network. "
Summary of change:	⌘ The GUP Server is located in the Home operator network of the targeted subscriber.
Consequences if not approved:	⌘ Unclear specifications

Clauses affected:	⌘ 4.2.1										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Y</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications ⌘ Test specifications ⌘ O&M Specifications ⌘	
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Other comments:	⌘										

How to create CRs using this form:

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- 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 MODIFICATION ***

4.2.1 GUP Server

The GUP Server is a functional entity providing a single point of access to the Generic User Profile data of a particular subscriber. The reference architecture does not specify or limit the physical location of the GUP Server enabling flexibility in the implementations. [However, the GUP Server shall be located in the home operator network of the targeted subscriber.](#)

The GUP Server includes the following main functionalities:

- Single point of access for reading and managing generic user profile data of a particular subscriber.
- Location of Profile Components.
- Authentication of profile requests.
- Authorization of profile requests.
- Synchronization of Profile Components.

The GUP Server may support two modes of operation:

- **Proxy mode** (see figure 4.3). The Application requests user related data located in the GUP Data Repositories from the GUP Server. After taking care of needed actions specified for the GUP Server (and depending on the type of the request) the GUP Server makes requests to the corresponding GUP Data Repositories and receives responses from them. Finally the Application gets a response to the original request from the GUP Server. Depending on the type of the request also possible subsequent responses are delivered through the GUP Server.
- **Redirect mode** (see figure 4.4). The Application requests user related data located in the GUP Data Repositories from the GUP Server. After taking care of needed actions specified for the GUP Server (and depending on the type of the request) the GUP Server returns to the Application the information (e.g. address of GUP Data Repository(s)) to allow the Application to request the information from the GUP Data Repositories. The Application then directly requests the information from the GUP Data Repositories.

The Proxy mode is the default mode of operation. Redirect capability and preference for the applied mode may be indicated by the application with the Requestor data parameter when accessing the GUP Server. The GUP Server decides which mode is selected for the different requests. In addition to the Requestor data parameter, the decision is based on the capabilities of the GUP Server and the related Repository Access Functions (RAF) as well as on the service configuration and policy data in the GUP Server related to the particular application. These service configuration and policy data are out of the scope of GUP standardisation. If the Redirect mode is not supported by the GUP Server the response is always sent according to the Proxy mode.

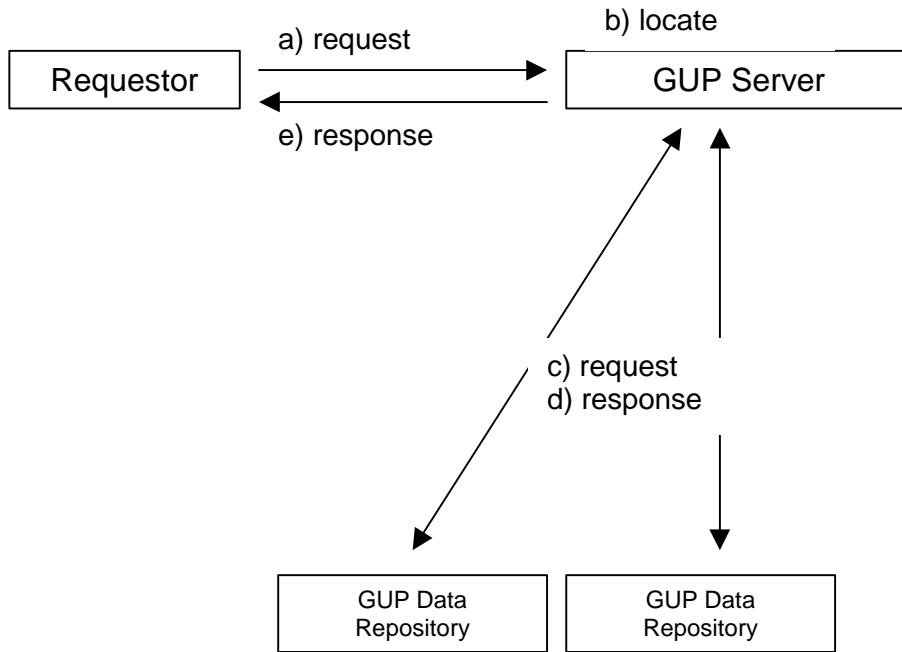


Figure 4.3: GUP Server acting as a Proxy Server

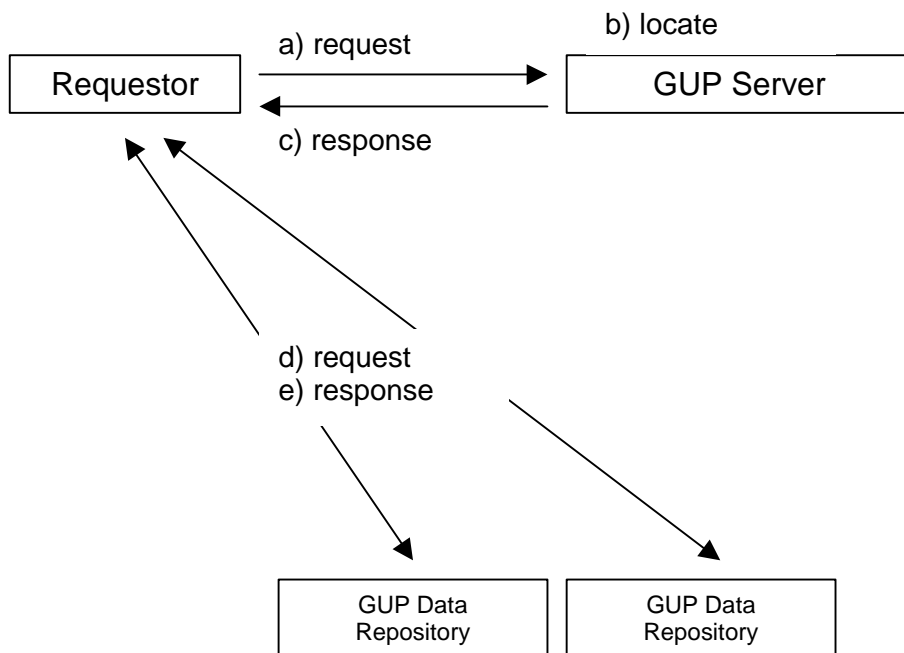


Figure 4.4: GUP Server acting as a Redirect Server.

4.2.1.1 Single point of access

The GUP Server shall accept data management related requests from the applications via the Rg reference point, and either convey the corresponding GUP component specific requests to GUP Data Repositories via Rp reference point or redirect the Application to convey the requests to the GUP Data Repositories. Note that one data request from an

application to the GUP Server can cause sending of several GUP Data Repository requests by the GUP Server or Application. Also mapping to proprietary interfaces instead of Rp is possible in implementations.

In Proxy mode the GUP Server shall receive the results of the requests from GUP Data Repositories and deliver the results back to the requestor (Application). In case of responses from several GUP Data Repositories the GUP Server shall combine separate XML documents received from the repositories and deliver the composed information to the requestor. In redirect mode the Application will receive the results of the requests from the GUP Data Repositories.

4.2.1.2 Location of profile components

The GUP Server stores information about the GUP Components and the locations of data repositories of GUP Components related to each subscriber. Thus e.g. the separate GUP components composing the whole User Profile of a certain subscriber can be located and identified. It is beyond this specification how the GUP server gets the component locations in the cases when it is not involved in the creation of those components.

4.2.1.3 Authentication of profile request

The GUP Server shall make sure that the application requesting user profile data is properly authenticated. The authentication is based on the identification of the requesting application and/or the identification of the possible subscriber requesting the user profile data. The GUP Server may rely on the authentication made by other trusted entities.

4.2.1.4 Authorization of profile request

The GUP Server shall take care of the authorization of the access to the user profile data. The authorization itself may be handled by a separate entity in the network, or alternatively by the RAF or GUP Data Repository. The authorization shall be based on the requestor information, the requested data, the target subscriber and the performed operation, or some of them. The authorization rules of the requested data shall be defined at least in the GUP Component level in GUP Server. (Note that the authorization may be based on also on finer granularity of the data content.) It shall be possible to manage the authorization data via the Rg and Rp reference points.

4.2.1.5 Synchronization of profile components

In proxy mode, the GUP Server shall convey the data synchronization requests from the applications to the RAFs in the same way as the other profile requests. Also the related change notifications from the RAFs are passed on to the requesting application. This requires that some kind of book keeping about the synchronization requests implemented. In redirect mode the GUP server shall redirect the Application to the RAFs in the same way as the other profile requests.

The GUP Server may store a copy of the actual data from the GUP Data Repository, but it is up to the local policy of the GUP Server.

4.2.1.6 Additional functionality

The GUP Server may take part in the charging of the data management operations concerning the profile.

The GUP Server may take part in the rate and/or size limiting of the data operations towards the profile.

The GUP Server may utilise a discovery service to register its contact reference information.

*** END OF MODIFICATION ***

3GPP TSG-SA2 Meeting #39
 Shenzhen, China, 19th to 23th April 2004

Tdoc #S2-041562

CR-Form-v7
CHANGE REQUEST
⌘ 23.240 CR 18 ⌘ 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:	⌘	Rp Intra-operator interface	
Source:	⌘	Orange	
Work item code:	⌘	GUP	Date: ⌘ 19/03/2004
Category:	⌘	F	Release: ⌘ REL-6
		Use <u>one</u> of the following categories:	Use <u>one</u> of the following releases:
		F (correction)	2 (GSM Phase 2)
		A (corresponds to a correction in an earlier release)	R96 (Release 1996)
		B (addition of feature),	R97 (Release 1997)
		C (functional modification of feature)	R98 (Release 1998)
		D (editorial modification)	R99 (Release 1999)
		Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘	It is not clearly stated in the current specification that the Rp is an intra-operator reference point.
Summary of change:	⌘	It is clarified in section 4.2.4 that Rp is an intra-operator reference point.
Consequences if not approved:	⌘	Unclear specifications

Clauses affected:	⌘	4.2.4									
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;"> </td> <td style="text-align: center;">X</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> Other core specifications	Y	N		X		X		X	⌘
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			X								
	X										
Test specifications	⌘										
O&M Specifications	⌘										
Other comments:	⌘										

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

*** FIRST MODIFICATION ***

4.2.4 Reference Points

Reference Points in the GUP Reference Architecture:

1. Reference point Rg

This reference point shall allow applications to create, read, modify and delete any user profile data using the harmonized access interface. The GUP Server locates the data repositories responsible of the storage of the requested profile component(s) and in case of proxy mode carries out the requested operation on the data. The reference point Rg shall support interworking to other mechanisms that support parts of the user profile outside the scope of 3GPP e.g. Liberty ID-WSF SOAP Binding Specification [3] and Liberty ID-WSF Data Services Template [4].

In the redirect mode, the GUP Server returns the locations of the GUP Data Repositories and the application can then send the requested operations via reference point Rp directly to the corresponding GUP Data Repositories.

The reference point Rg carries user related data, and therefore shall be protected by security mechanisms.

2. Reference point Rp

This reference point shall allow the GUP Server or applications, excluding ~~third party~~external applications (e.g. located in a third party application or in the UE), to create, read, modify and delete user profile data using the harmonized access interface. Rp is an intra-operator reference point. ~~External~~Third party applications and third party GUP data repositories shall be connected to the GUP Server only using the Rg reference point.

The reference point Rp carries user related data, and therefore shall be protected by security mechanisms.

*** END OF MODIFICATION ***

3GPP TSG-SA2 Meeting #39
 Shenzhen, China, 19th to 23th April 2004

Tdoc #S2-041563

CR-Form-v7	
CHANGE REQUEST	
# 23.240 CR 19 # 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:	# GUP Authentication failure		
Source:	# Orange		
Work item code:	# GUP	Date:	# 19/03/2004
Category:	# F	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:	# Currently, it is not possible to indicate to the requestor that the authentication has failed.
Summary of change:	# An error code is added for authentication failure in the response to the requestor.
Consequences if not approved:	# Incomplete specifications

Clauses affected:	# 4.3.9, 4.4.10										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications # <input type="checkbox"/> Test specifications # <input type="checkbox"/> O&M Specifications # <input type="checkbox"/>	Y	N	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
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Other comments:	#										

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- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

*** FIRST MODIFICATION ***

4.3.9 Error handling and common error types

The basic principle in error handling is that all errors in carrying out the procedures lead to complete abortion of the requested operation. However if e.g. multiple modifications with separate data references are made with one procedure invocation, it is possible that part of these are completed even if some would fail. The procedure error responses identify the error type together with more detailed information about the cause of the error.

The common error types which can be applied to all procedures contain:

Table 4.18: Common error types

Error	Description
Invalid operation	The operation is invalid or unsupported.
Invalid parameter	The given parameter of the operation is invalid.
Unauthorized operation	There was no authority for the requested operation.
Data unavailable	The requested data were not available.
Unexpected error	An unexpected error condition was met.
Authentication error	The authentication of the requestor has failed.

*** NEXT MODIFICATION ***

4.4.10 Error handling and common error types

The basic principle in error handling is that all errors in carrying out the procedures lead to complete abortion of the requested operation. The procedure error responses identify the error type together with more detailed information about the cause of the error.

The common error types which can be applied to all procedures contain:

Table 4.35: Common error types

Error	Description
Invalid operation	The operation is invalid or unsupported.
Invalid parameter	The given parameter of the operation is invalid.
Unauthorized operation	There was no authority for the requested operation.
Data unavailable	The requested data were not available.
Unexpected error	An unexpected error condition was met.
Authentication error	The authentication of the requestor has failed.

*** END OF MODIFICATION ***

CHANGE REQUEST

23.240 CR 020 # rev **-** # 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:	# Removal of editor's note on existing profile components		
Source:	# SA2 (Nokia)		
Work item code:	# GUP	Date:	# 12/05/2004
Category:	# F	Release:	# Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)		R96 (Release 1996)
	B (addition of feature),		R97 (Release 1997)
	C (functional modification of feature)		R98 (Release 1998)
	D (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	# Editor's note "How the existing profile components are included in the Generic User Profile is FFS" in subclause 4.4 needs to be resolved.
	First case is that the required existing profile data is contributed to the 3GPP including the component specific XML Schema. If the GUP Component Schema is standardised, the data can be accessed by implementing the Rp interface in the element with RAF providing a standard view to the data according to specified GUP Component Schema.
	Second case is to define a proprietary GUP Component and implement it in the required element. The standardised 3GPP GUP data definition mechanisms can be utilised. The standardised GUP procedures may be used as they are defined.
	Additionally the List procedure can be used by the GUP Server to get to know which component instances exist behind the RAFs.
Summary of change:	# The editor's note is proposed to be removed.
Consequences if not approved:	# The editor's note is still unsolved.

Clauses affected:	# 4.4								
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;">#</td> <td style="text-align: center;">X</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
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	Other core specifications #								
	Test specifications #								
	O&M Specifications #								

Other comments: ☹

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4.4 Rp reference point procedures

This subclause defines the procedures applied in the Rp reference point. The application or GUP server acts as the active requestor towards the Repository Access Function (RAF) entities e.g. to read or modify the data. It is assumed that the both ends share initially the same data structure definitions. Rp is applied to control the data stored in the different user profile components identified by a resource identity and the component type. The resource identity contains either a subscriber identity or a generic component identification which is given to components that are not bound to a single subscriber.

There are the following procedures:

- Create Component
- Delete Component
- Modify Data
- List Data
- Read Data
- Subscribe To Data
- Unsubscribe To Data
- Notify Data
- Define Data

~~Editor's note: How the existing profile components are included in the Generic User Profile is FFS.~~

4.4.1 Create Component procedure

CR-Form-v7

CHANGE REQUEST

23.240 CR 021 # 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:	# Addition of an example in Annex A		
Source:	# SA2 (Nokia)		
Work item code:	# GUP	Date:	# 17/05/2004
Category:	# F	Release:	# Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2	(GSM Phase 2)
	A (corresponds to a correction in an earlier release)	R96	(Release 1996)
	B (addition of feature),	R97	(Release 1997)
	C (functional modification of feature)	R98	(Release 1998)
	D (editorial modification)	R99	(Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Rel-4	(Release 4)
		Rel-5	(Release 5)
		Rel-6	(Release 6)

Reason for change:	# One target for the Generic User Profile concept stated in GUP stage 1 specification TS 22.240 is to provide a standardised way to access the subscription data. There is a requirement on it also in IMS stage 1 specification TS 22.228. The HSS GUP Component will contain primary subscription data. The proposed example clarifies the usage of GUP with Subscription Management.
Summary of change:	# Example on GUP usage with Subscription Management is proposed to be added to Annex A.
Consequences if not approved:	# The Annex A gives a limited view for the GUP usage.

Clauses affected:	# Annex A										
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	# 29.240
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		Test specifications									
		O&M Specifications									
Other comments:	#										

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Annex A (informative): Examples of 3GPP Generic User Profile usage

Example 1: GUP Interworking with Device Management

As the device management specification 32.802 requests, the UEM Gateway controls the access available to the UE managers. The GUP server will perform gateway functionality for device management. The example of the interworking interface diagram is shown in Figure A.1.

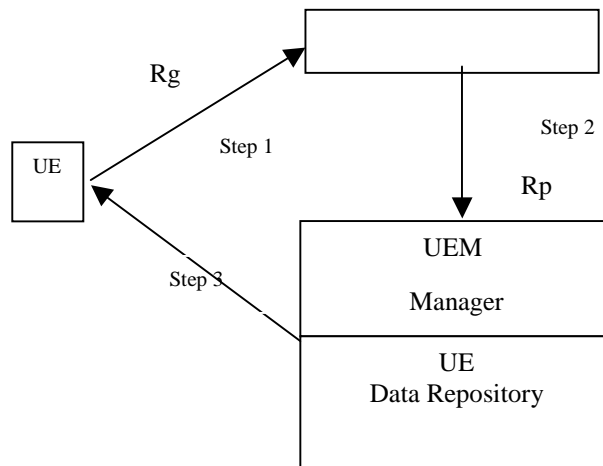


Figure A.1: An Example of the Interworking Diagram between GUP and Device Management

The interworking steps between GUP and Device management are summarized below:

Step 1: GUP Server allows any requests from UE to be accessed in a secured manner.

Step 2: GUP Server routes the request from UE to the appropriate UE management within the data repository.

Step 3: Data transactions take place.

NOTE: In this example the GUP server is working in proxy mode, this does not preclude the possibility for the GUP server to work in redirect mode when interworking with Device Management.

Example 2: GUP Usage with Subscription Management

An application is accessing targeted subscriber's subscription data (HSS GUP Component) stored in the HSS. It is assumed that RAF is implemented in the HSS and the targeted HSS GUP Component has been created by using the Create Component procedure. The application in this case can be e.g. a Subscription Management application, a service application or any third party application that is interested in the subscription data of a specific subscriber in operator A's network.

The example of the interworking interface diagram is shown in Figure A.2. In this example GUP Server is working in the proxy mode of operation.

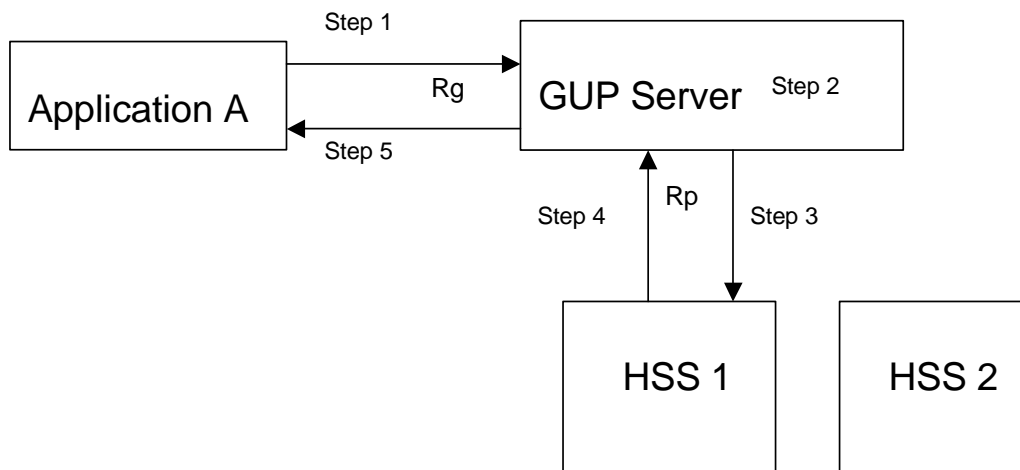


Figure A.2: An Example of the Interworking Diagram between GUP and an Application

The interworking steps between the Application, GUP Server and HSS are summarised below:

Step 1: Application A invokes a Query procedure to the GUP Server including the targeted subscriber's public user identity joe.doe@operatorA.com in the Resource Identity parameter. The HSS GUP Component will be included in the Data Reference parameter clarifying the targeted data (component type) that the application is interested in. Also specific data (i.e XML Data Element) within one GUP Component can be requested. Application A's identity is included in the Requestor data parameter for the identification and authorisation purposes of the request.

Step 2: GUP Server authenticates the application and authorises the request with the result that Application A is allowed to access the HSS GUP Component of the subscriber joe.doe@operatorA.com.

Step 3: GUP Server locates the target GUP Data Repository (RAF address), i.e. that the HSS GUP Component of the subscriber joe.doe@operatorA.com is located in the HSS 1, and invokes Read data procedure to HSS 1.

Step 4: HSS 1 makes an internal query by using the public user identity joe.doe@operatorA.com and returns a response to Read data procedure to the GUP Server including the requested HSS GUP Component data of the subscriber joe.doe@operatorA.com.

Step 5: GUP Server passes the received response to Query procedure further to Application A.

The GUP Server may retrieve authorisation GUP Components from a RAF, if it does not hold sufficient information by itself to carry out the authorisation.

If necessary, e.g. when the application requests several GUP Components, or the whole profile including several GUP components in different repositories, GUP Server can invoke several requests to various RAFs and combine responses to one response when returning a response to the application.

3GPP TSG-SA WG2 #40
Sophia Antipolis, France, 17th – 21st May 2004

Tdoc #S2-042205

CR-Form-v7
CHANGE REQUEST
23.240 CR 022 # rev 2 # 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:	# Clarification of requirement for component location management		
Source:	# SA2 (Lucent Technologies)		
Work item code:	# GUP Date: # 17/05/2004		
Category:	# B Release: # Rel-6 Use <u>one</u> of the following categories: <table style="width: 100%; margin-top: 5px;"> <tr> <td style="width: 50%; vertical-align: top;"> 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. </td> <td style="width: 50%; vertical-align: top;"> 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) </td> </tr> </table>	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)
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Reason for change:	# A recent LS from CN4 (S2-041161, resubmitted to SA2#40 as S2-041709) indicates that they would like to define mechanisms by which the GUP server knows where GUP components are physically stored. However, SA2 (and SA1) requirements for this are not explicit. Examination of 23.240 indicates that clause 4.2.1.2 of 23.240 covers this subject area but it is not explicit enough to avoid misunderstanding. It states that it is outside the scope of the specification to describe how the GUP server obtains component locations when the GUP server isn't involved in the creation of the components. However, it doesn't define what the requirements are when the GUP server is involved in the creation of the components. The existing requirement should be modified to add a new requirement. One motivation for this additional feature is the need of the subscription management systems to control the physical storage of the data in the different data repositories.
Summary of change:	# A more detailed statement of the component location requirement is added.
Consequences if not approved:	# The application cannot control where the GUP Server stores the GUP Components.

Clauses affected:	# 4.2.1.2								
Other specs affected:	<table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px;">Y</td> <td style="border: 1px solid black; padding: 2px;">N</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">X</td> <td style="border: 1px solid black; padding: 2px;"></td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;"></td> <td style="border: 1px solid black; padding: 2px;">X</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;"></td> <td style="border: 1px solid black; padding: 2px;">X</td> </tr> </table> Other core specifications # 29.240 Test specifications O&M Specifications	Y	N	X			X		X
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.

******* The Change *******

4.2.1.2 Location of profile components

The GUP Server stores information about the GUP Components and the locations of data repositories of GUP Components related to each subscriber. Thus e.g. the separate GUP components composing the whole User Profile of a certain subscriber can be located and identified. [The application shall be able to affect where a new GUP Component is created by the GUP Server.](#) It is beyond this specification how the GUP server gets the component locations in the cases when it is not involved in the creation of those components.

4.2.1.3 Authentication of profile request

The GUP Server shall make sure that the application requesting user profile data is properly authenticated. The authentication is based on the identification of the requesting application and/or the identification of the possible subscriber requesting the user profile data. The GUP Server may rely on the authentication made by other trusted entities.

4.2.1.4 Authorization of profile request

The GUP Server shall take care of the authorization of the access to the user profile data. The authorization itself may be handled by a separate entity in the network, or alternatively by the RAF or GUP Data Repository. The authorization shall be based on the requestor information, the requested data, the target subscriber and the performed operation, or some of them. The authorization rules of the requested data shall be defined at least in the GUP Component level in GUP Server. (Note that the authorization may be based on also on finer granularity of the data content.) It shall be possible to manage the authorization data via the Rg and Rp reference points.

4.2.1.5 Synchronization of profile components

In proxy mode, the GUP Server shall convey the data synchronization requests from the applications to the RAFs in the same way as the other profile requests. Also the related change notifications from the RAFs are passed on to the requesting application. This requires that some kind of book keeping about the synchronization requests implemented. In redirect mode the GUP server shall redirect the Application to the RAFs in the same way as the other profile requests.

The GUP Server may store a copy of the actual data from the GUP Data Repository, but it is up to the local policy of the GUP Server.

4.2.1.6 Additional functionality

The GUP Server may take part in the charging of the data management operations concerning the profile.

The GUP Server may take part in the rate and/or size limiting of the data operations towards the profile.

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The GUP Server may utilise a discovery service to register its contact reference information.