Technical Specification Group Services and System Aspects Meeting #17, Biarritz, France, 9-12 September 2002

TSGS#17(02)0559

Source: **SA1**

Title: **Release 6 CRs to 22.127 on OSA**

Document for: **Approval**

Agenda Item: **7.1.3**

SA Doc	Spec	CR	Rev	Phase	Cat	Subject	Old Vers	New Vers	SA1 Doc
SP-020559	22.127	050		Rel-6	B	Reintroduction of User Data management and User data security management postponed from R5	6.0.0	6.1.0	S1-021830
SP-020559	22.127	051		Rel-6	B	Network function for Multimedia Messaging	6.0.0	6.1.0	S1-021854
SP-020559	22.127	052		Rel-6	C	OSA support of enhanced user privacy	6.0.0	6.1.0	S1-021716
SP-020559	22.127	053		Rel-6	B	Reintroduction of features postponed in Rel-5	6.0.0	6.1.0	S1-021720
SP-020559	22.127	054		Rel-6	C	CR 22.127 extensions to policy management complex parameters	6.0.0	6.1.0	S1-021721
SP-020559	22.127	055		Rel-6	C	CR 22.127 extensions to policy management third party applications	6.0.0	6.1.0	S1-021722
SP-020559	22.127	056		Rel-6	B	CR 22.127 - Reintroduction of Presence Service	6.0.0	6.1.0	S1-021596
SP-020559	22.127	057		Rel-6	B	CR on OSA support of Generic Network Interface function	6.0.0	6.1.0	S1-021718

TSG-SA WG1 #17 **S1-021830**
Durango, USA, 12-16th August 2002 **Agenda Item:**

CR-Form-v7

CHANGE REQUEST

⌘ **22.127** **CR** **050** ⌘ **rev** **-** ⌘ Current version: **6.0.0** ⌘

*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:	⌘	Reintroduction of User Data management and User data security management postponed from R5
Source:	⌘	SA1 (Siemens AG, Lucent Technologies)
Work item code:	⌘	OSA3
Date:	⌘	15/08/2002
Category:	⌘	**B**
Release:	⌘	Rel-6

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:	⌘	This CR reintroduces features that were removed from R5 as they couldn't be completed by CN5 in the Release 5 timeframe.
Summary of change:	⌘	Requirements for the following features are added into the TS: • User Data Management • Security requirements on user data management The requirements introduced by this CR are identical to the ones existing in 5.3.0. (c.f. S1-020868/S1-020903).
Consequences if not approved:	⌘	These features will not be supported by OSA.

Clauses affected:	⌘	7, 10

Other specs affected:	⌘	Y	N		⌘	
		X		Other core specifications		23.127, 29.198
			X	Test specifications		
			X	O&M Specifications		

Other comments:	⌘	Investigations on the interaction with generic user profile are outstanding

How to create CRs using this form:
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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.

Change in Clause 7

7 ~~Void~~ Requirements for user data management

Note that the work on Generic User Profile may have an influence and needs to be studied carefully.

The User Profile logically is a set of information relevant for a given user. The set of information is provided by Service Capability Servers and – if permitted – from Value Added Services. The amount of User Profile information might be distributed over various physically separated entities. The concept of distributed information is not within the scope of this specification. The detailed content of the User Profile is not subject herein.

However, subscribers are able to subscribe or use services provided from Value Added Service Providers. Subscriber may customise these VAS according to their needs equally as the subscriber customise her services provided by the network operator. To avoid malicious or conflicting situations it is needed to allow VAS to access the users USER Profile. The co-existence of several services and the correct inter-working between them are founded on sufficient information about other services subscribed to.

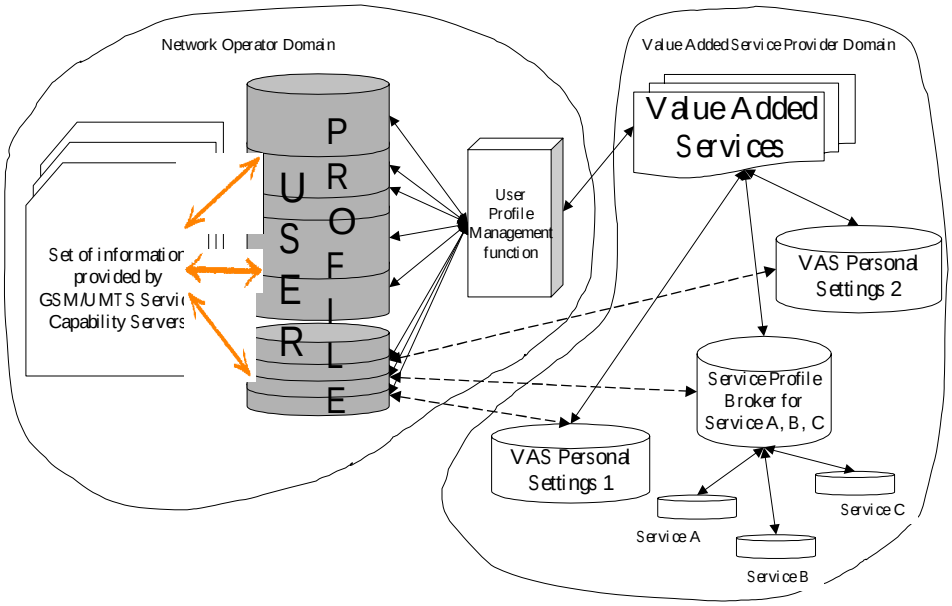
VAS shall not be allowed to access the User Profile without permission. It is important to prevent the User Profile from malicious attacks. The OSA Framework functions restrict the applications' access to the User Profile Management (UPM) functions.

UPM functions check the application's rights to make these actions regarding each separate part of the user profile. Depending on the authorisation, the User Profile Management functions may permit the VAS to read from and/or to add to and/or to modify the User Profile or parts of it. This decision is based on:

- Subscriber identity
- Access information in the User Profile of the subscriber
- Application identity
- Access type (read, add or modify)

Access information shall contain the user specific access rights per application. These may be given either for individual parts of the User Profile or for a group of data or even all data in the User Profile.

The figure below gives a logical overview of the relation between VAS, User Profile Management function and the User Profile itself.

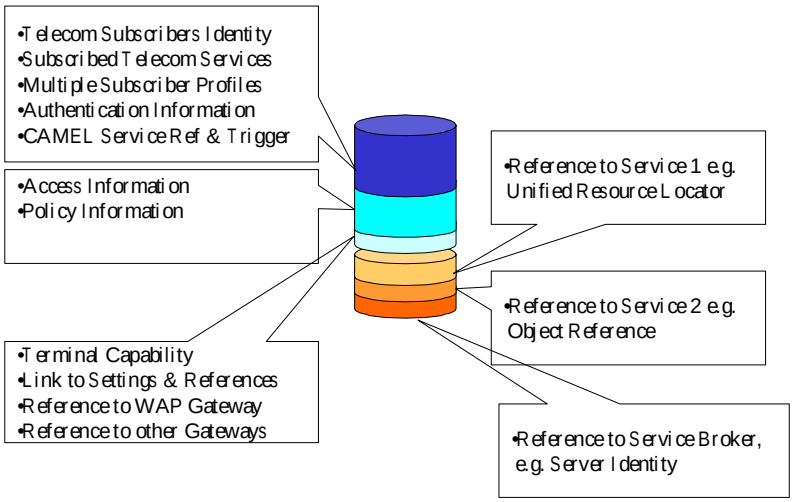


Note: the dotted line refers to additional Personal Settings. The reference itself shall unambiguously identify the location of the additional personal settings.

User specific information from the e.g. HLR and/or HSS are equally part of the User Profile as terminal settings and VAS specific preferences. The User Profile in principle is the summary and collection of information with a relevance for the services supported for a given subscriber.

The figure above shows User and Network Service and VAS specific information, customised by the user. It is assumed that the user profile consists of several parts. The User Profile elements shall at least be capable to store a reference to additional information stored else where. The User Profile shall act as a root towards all user specific information.

Even when the content of the User Profile is outside this specification, the following figure shows how a content could look like.



On the left side of the figure above, typical 3GPP system related information are listed (this is not an exhaustive list).

The right side depict references to VAS specific information. The representation of references to VAS specific information above, is an example and does not insist to be complete.

End of Change in Clause 7

Change in Clause 10

10 Security requirements

~~No requirements for this release are identified.~~

10.1 Security requirements on User Profile Management

Note that the work on Generic User Profile may have an influence and needs to be studied carefully.

The User Profile Management functions shall be able to grant or deny access to individual parts of the subscriber's User Profile as described in the clause 7.

The User Profile Management functions shall ensure that all operations on parts of User Profile data are authorized.

The type of access is one out of:

- Reading user profile information; in case parts of the User profile is subject for reading it shall unambiguously be identified by the application,
- Adding information to the user profile,

- Modify existing information in the user profile.

The control of access rights is in principle on the user's discretion. The user shall have the possibility to allow or restrict the retrieval and presentation of her user related data. The mechanism how a user is able to maintain access rights is for further study.

End of Change in Clause 10

TSG-SA WG1 #17 **S1-021854**
Durango, USA, 12-16th August 2002 **Agenda Item: 10.7**

CR-Form-v7

CHANGE REQUEST

⌘ **22.127** **CR** **051** ⌘ **rev** **-** ⌘ Current version: **6.0.0** ⌘

*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:	⌘	Network function for Multimedia Messaging
Source:	⌘	SA1 (Telecom Italia)
Work item code:	⌘	OSA3
Date:	⌘	15/08/2002
Category:	⌘	**B**
Release:	⌘	REL-6

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:	⌘	The MMS Release 5 specification includes an interface between MMS network services and value-added application servers. This contribution adds a new OSA network function to handle multi-media messaging using OSA interfaces.
Summary of change:	⌘	Introduction of a new network function (the Multimedia Messaging function).
Consequences if not approved:	⌘	It would not be possible to develop OSA applications handling MMS.

Clauses affected:	⌘	Introduction of a new subclause (e.g., 13.7) in clause 13.			
		Y	**N**		
Other specs affected:	⌘	**X**		Other core specifications	⌘ 23.127; 29.198
			X	Test specifications	
			X	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.

13.7 Multimedia Messaging function

The Multimedia Messaging function enables applications to receive and send multi-media messages.

TSG-SA WG1 #17 **S1-021716**
Durango, USA, 12-16th August 2002 **Agenda Item: 10.7**

CR-Form-v7

CHANGE REQUEST

⌘ **22.127** **CR** **051** ⌘ **rev** **-** ⌘ Current version: **6.0.0** ⌘

*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:	⌘	Support of LCS Enhanced User Privacy
Source:	⌘	SA1 (Fujistu Laboratories of Europe, Siemens AG)
Work item code:	⌘	OSA3
Date:	⌘	02/08/2002
Category:	⌘	**C**
Release:	⌘	Rel-6

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:	⌘	This CR reflects the enhancements of User Privacy in LCS.
Summary of change:	⌘	It shall be possible to receive Requestor identity, service identity and codeword when provided by an OSA application. These information are added as optional parameters of the User location Function. These information shall further be provided to the GMLC.
Consequences if not approved:	⌘	The OSA interface between the LCS Client and the GMLC will not support all the features of the location services.

Clauses affected:	⌘	2.1, 13.3.2			
		Y	**N**		
Other specs affected:	⌘	**X**		Other core specifications	⌘ 23.127, 29.198
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘	Enhancements are required in the OSA Mobility SCF.			

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First Change in Clause 2.1

2.1 Normative references

[1] 3GPP TS 22.121: Universal Mobile Telecommunications System (3G); "The Virtual Home Environment"

[2] 3GPP TS 22.101: Service principles

[3] 3GPP TR 21.905: Vocabulary for 3GPP Specifications

[4] 3GPP TS 23.107: QoS Concept and Architecture

[5] 3GPP TS 22.024: Description of Charge Advice Information (CAI)

[6] 3GPP TS 29.198: Open Service Architecture; Application Programming Interface; Part 1

[7] Void

[8] 3GPP TS 22.228: IP Multimedia Subsystem (IMS) Stage 1

[9] 3GPP TS 22.071: Location Services (LCS) Stage 1

End of Change in Clause 2.1

Second Change in Clause 13.3.2

13.3.2 User Location functions

The User Location functions provide an application with information concerning the user's location.

The user location information contains the following attributes:

- **location** (e.g. in terms of universal latitude and longitude co-ordinates);
- **accuracy** (value depending on local regulatory requirements and level of support in serving/home networks; note that the accuracy of the serving network might differ from that in the home environment);
- **age** of location information (last known date/time made available in GMT).

The following functions shall be provided:

- **report of location information:**
  - the application shall be able to request user location information;
  - - by default the location information is provided once; the application may also request periodic location reporting (i.e. multiple reports spread over a period of time).
- **notification of location update:**

- the application shall be able to request to be notified when the user's location changes, i.e. when:
  - the user enters or leaves a specified geographic area;
  - the user's location changes more than a specified lower boundary. The lower boundary can be selected from the options provided by the network.

The application shall be able for each user to start/stop receipt of notifications and to modify the required accuracy by selecting another option from the network provided options.

- **Access control to location information:**

- the user shall be able to restrict/allow access to the location information. The restriction can be overridden by the network operator when appropriate (e.g. emergency calls).

When an application requests report of location information or notification of location update, it shall be possible for the application to provide an optional requestor identiy, an optional service identity and an optional codeword (as defined in [9]). If an application provides one or more of the above optinal privacy information, the information shall be brought to the location service capabilities attention and used to comply with privacy policies of the subscriber the request relates to.

End of Document

TSG-SA WG1 #17 **S1-021720**
Durango, USA, 12-16th August 2002 **Agenda Item: 10.7**

CR-Form-v7

CHANGE REQUEST

⌘ **22.127** **CR** **053** ⌘ **rev** **-** ⌘ Current version: **6.0.0** ⌘

*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:	⌘	Reintroduction of features postponed from R5
Source:	⌘	SA1 (Fujitsu Laboratories of Europe)
Work item code:	⌘	OSA3
Date:	⌘	15/08/2002
Category:	⌘	**B**
Release:	⌘	Rel-6

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)*
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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:	⌘	This CR reintroduces features that were removed from R5 as they couldn't be completed by CN5 in the Release 5 timeframe.
Summary of change:	⌘	Requirements for the following features are added into the TS: • Visited Network Capabilities • Information Services The requirements introduced by this CR are identical to the ones existing in 5.3.0. (c.f. S1-020868/S1-020903).
Consequences if not approved:	⌘	These features will not be supported by OSA.

Clauses affected:	⌘	13.3.6, 13.4

		Y	N			
Other specs affected:	⌘	X		Other core specifications	⌘	23.127, 29.198
			X	Test specifications		
			X	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.

Change in Clause 13.3.6

13.3.6 ~~Void~~ Functions for retrieval of Visited Network Capabilities

OSA applications make use of network capabilities offered through the abstraction of the service capability features. As a user may be served by network capabilities in a VPLMN, applications may benefit from knowing the differences that exist between the home and visited network capabilities. Such information may provide the ability for an application to tailor its behaviour according to the capabilities of the visited network.

The functions for retrieval of Visited Network Capabilities shall enable the application to obtain information about the network capabilities of the visited network serving a subscriber.

The information provided to the application shall contain the following, if available:

- Available network toolkits, including level of support (e.g. CAMEL Phase X)
- Supported Network access, (e.g. GPRS, CS, IMS), and in case of no support, detailed information (unknown support, roaming not allowed, …).

End of Change in Clause 13.3.6

Change in Clause 13.4

13.4 ~~Void~~ Information Services functions

The information services functions enable applications to supply information that is available for later retrieval from applications as determined by the Home Environment.

NOTE: The HE is not requested to broadcast service information received from OSA applications to any application or user.

The HE shall be able to restrict the maximum size of information supplied by OSA applications. The information is kept in the HE for retrieval by OSA applications. The HE provides the information on OSA application request. The main purpose is to pass textual information between OSA applications.

The information itself shall clearly allow to be classified in HE-defined categories. Examples of such categories could be traffic information, weather, headlines, local services, etc.

The following functions shall be provided:-

- **supply and update of Information:**
  - the application shall be able to supply and update details to the information service in order to make it available to other applications
  - this action may take place by application's own initiative, or when requested by the network
- **retrieval of Information:**
  - the application shall be able to retrieve details from the information service

End of Change in Clause 13.4
End of Document

3GPP TSG-SA SWG 1 (Services) Meeting #17 ***Tdoc ⌘S1-021721***
Durnago, USA, 12th –16th August 2002

CR-Form-v7

CHANGE REQUEST

⌘ **22.127** **CR** **054** ⌘ **rev** **-** ⌘ Current version: **6.0.0** ⌘

*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:	⌘	Extensions to Policy Management
Source:	⌘	SA1 (Lucent Technologies, Teltier Technologies, Incomit)
Work item code:	⌘	OSA3
Date:	⌘	15/08/2002
Category:	⌘	**C**
Release:	⌘	Rel-6

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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: ⌘ This change requests proposes functional enhancements to the OSA Policy Management capabilities. The proposed extensions are :

1. Creation/Modification of polices based on more ‘complex’ parameters such as lists, meta variables, records …etc as opposed simpler parameters such as integers. This offers the service proviers and network operator a greater applicability

2. Allow OSA client applications to modify policy rules. Such an appraoch allows the reuse of predefined rules with minor customisation. From a service provide perspective benefits are that rule creation becomes easier since modification of a rule is generally easier than creation of a new rule. From an operator perspective, the benefits are that this results in lower error checking overhead, since re-used pre-defined rules with modifications are likely to be less error prone.

3. Extension the current “grammar” for the expression of Policy Rules. The current grammar allows only very simplistic policy rules to be expressed and extensions allow for less vendor specific expressions as well as introducing new operations and allowing the definition of user specific functions.

Summary of change: ⌘ In the clause covering the requirements for Policy Management add:

- Add reference to simple as well as complex parameter
- Addition of statement covering the modification of policy rules
- Add statement that expressions of policy rules are more feature rich that currently supported in R5, allow for operations on the complex data types and allow for definition of user specific funcitons.

Consequences if not approved:	⌘	

Clauses affected:	⌘	11			
Other specs affected:	⌘	**Y** / **N** **Y** / ☐ Other core specifications ☐ / ☐ Test specifications ☐ / ☐ O&M Specifications	⌘	29.198	
Other comments:	⌘	Additional background information can be found in the discussion document S1-021571			

11 Requirements for Policy Management

Applications shall have the ability to interact with policy-enabled Service Capability Features in a secure manner. The network policies always take precedence over the application defined policies.

The OSA interface shall provide sufficient capabilities to enable applications to request:

- **To manage the application's policy-related information**
  This allows applications to create, modify and delete policies, policy events and to activate, ~~and~~ deactivate and modify policy rules. Policy rules may be expressed with simple data types (such as integers or string) or more complex data types (such as Boolean values, time, lists, meta-variables..etc). Expression of policy rules shall take into account these complex data types as well as allow for a feature rich set of operands and allow for ability to define user specific functions.

- **To manage policy event notification**
  This allows applications to register for specific policy events. Once registered for such events, the application shall receive notification of the events until it explicitly requests the termination of the notification request

- **To collect policy statistics**
  This allows an application to collect policy related statistics from the network. Examples include success or failure of operations on policies and time stamps of policy events.

3GPP TSG-SA SWG 1 (Services) Meeting #17
Durnago, USA, 12th –16th August 2002

Tdoc ⌘S1-021722

CR-Form-v7

CHANGE REQUEST

⌘ **22.127** **CR** **055** ⌘ **rev** **-** ⌘ Current version: **6.0.0** ⌘

*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:	⌘	Extensions to Policy Management : Policy Rule evaluation by third party applications
Source:	⌘	SA1 (Lucent Technologies, Teltier Technologies, Incomit)
Work item code:	⌘	OSA3
Date:	⌘	14/08/2002
Category:	⌘	**C**
Release:	⌘	Rel-6

Use one of the following categories:
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R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	This change request proposes a functional enhancement to the OSA Policy Management capabilities. The proposed extensions is to allow Policy Management Clients to request the evaluation of policies (rules).
Summary of change:	⌘	In the clause covering the requirements for Policy Management add: • Statement that the OSA interface shall provide capabilities to enable applications to request policy evaluation.
Consequences if not approved:	⌘	

Clauses affected:	⌘	11

		Y	N			
Other specs affected:	⌘	Y		Other core specifications	⌘	29.198
				Test specifications		
				O&M Specifications		

Other comments:	⌘	Additional background information can be found in the discussion document S1-021573

11 Requirements for Policy Management

Applications shall have the ability to interact with policy-enabled Service Capability Features in a secure manner. The network policies always take precedence over the application defined policies.

The OSA interface shall provide sufficient capabilities to enable applications to request:

- **To manage the application's policy-related information**

  This allows applications to create, modify and delete policies, policy events and to activate and deactivate policy rules.

- **To manage policy event notification**

  This allows applications to register for specific policy events. Once registered for such events, the application shall receive notification of the events until it explicitly requests the termination of the notification request

- **To collect policy statistics**

  This allows an application to collect policy related statistics from the network. Examples include success or failure of operations on policies and time stamps of policy events.

- To request policy evaluation

  This allows an application to request that a set of policies is evaluated by the network.

CR-Form-v7

CHANGE REQUEST

⌘ **22.127** **CR** **056** ⌘ **rev** **-** ⌘ Current version: **6.0.0** ⌘

*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:	⌘	Reintroduction of references to Presence Service
Source:	⌘	SA1 (Fujitsu Laboratories of Europe)
Work item code:	⌘	OSA3
Date:	⌘	02/08/2002
Category:	⌘	**B**
Release:	⌘	Rel-6

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:	⌘	This CR reintroduces the requirements to support R6 Presence Service. These requirements were removed from OSA R5 following SA#15 decision to delete the Presence Service WI from Release 5.
Summary of change:	⌘	The text introduced by this CR is identical to the one existing in 5.3.0. (c.f. S1-021171) with the following exceptions: • A definition of "watcher" is added • The note stating that watcher registration is not covered in TS 22.141 is not accurate and is removed.
Consequences if not approved:	⌘	The Presence Service (as defined in TS 22.141) will not be supported by OSA.

Clauses affected:	⌘	2.1, 3.1, 13.5			
Other specs affected:	⌘	**Y**	**N**		
		X		Other core specifications	⌘ 23.127, 29.198
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:
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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.

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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.

Change in Clause 2.1

2.1 Normative references

[1] 3GPP TS 22.121: Universal Mobile Telecommunications System (3G); "The Virtual Home Environment"

[2] 3GPP TS 22.101: Service principles

[3] 3GPP TR 21.905: Vocabulary for 3GPP Specifications

[4] 3GPP TS 23.107: QoS Concept and Architecture

[5] 3GPP TS 22.024: Description of Charge Advice Information (CAI)

[6] 3GPP TS 29.198: Open Service Architecture; Application Programming Interface; Part 1

[7] 3GPP TS 22.141: Presence Service Stage 1 ~~Void~~

[8] 3GPP TS 22.228: IP Multimedia Subsystem (IMS) Stage 1

End of Change in Clause 2.1

Change in Clause 3.1

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

Access Rules: For the definition see [7].~~constraints on how the presence service makes presence information available to watchers. For each presentity's presence information, the applicable access rules are managed by the principal that controls the presentity~~

~~Note: This Release 5 Access Rules does not refer to the Access Rules of the 3GPP Presence Service that is in Release 6.~~

Applications: software components providing services to users by utilising service capability features.

Application Interface: standardised Interface used by applications to access service capability features.

Availability: a property of a user denoting his/her ability and willingness to communicate based on factors such as the identity or properties of the requester of the information and the preferences and/or policies that are associated with the user. This property may be computed through information available from various capabilities within the network including (but not necessarily) the presence service.

Call: A logical association between several users pertaining to the CS CN domain..

Charging: A function whereby information related to a chargeable event is formatted and transferred in order to make it possible to determine usage for which the charged party may be billed.

HE-VASP: Home Environment Value Added Service Provider. For the definition see [3]

Home Environment: For the definition see [3]

IM : IP Multimedia. For definition see [8]

IM Session: For definition see [8]

Local Service: For the definition see [1]

Personal Service Environment: For the definition see [1]

Policy: is a formalism that may be used to express business, engineering or management criteria. A policy is represented by a set of rules. Rules are expressed as condition(s)-actions(s) pairs. When the conditions associated with a rule are satisfied the associated actions are executed.

Note: Policies created by applications are matched against the policies of a Network.

Policy Event : A policy event is associated with the action part of designated rule(s). The event is generated when the action part is executed.

Policy Management: is the capability to create, modify and delete policy related information, including policy events.

Policy Enabled Service: is a Service which has some or all of its properties expressed in terms of policy rules. E.g. Charging Service wherein charging criteria are expressed in terms of policy rules

Policy Decision Point: A function of the network where the applicable policy is chosen.

Policy Enforcement Point: A function of the network where the chosen policy is applied.

Policy Repository: A function of the network where policies are stored.

Policy Enabled network: is a network that supports at least one instance of a Policy Repository and Policy Decision Point and Policy Enforcement Point.

Presence Service: For the definition see [7].

Presence Information: For the definition see [7]. ~~is a set of attributes characterising current properties of presentities such as status.~~

~~Note: This Release 5 Presence Information does not refer to the Presence Information of the 3GPP Presence Service that is in Release 6.~~

Presence Entity (presentity): For the definition see [7]. ~~is any uniquely identifiable entity that is capable of providing presence information.~~

~~Note: This Release 5 Presence Entity does not refer to the Presence Entity of the 3GPP Presence Service that is in Release 6.~~

Service Capabilities: bearers defined by parameters, and/or mechanisms needed to realise services. These are within networks and under network control.

Service Capability Feature: functionality offered by service capabilities that are accessible via the standardised application interface.

Service Provider: an organisation which delivers services to the subscriber. This can be e.g. the operator of the subscriber's Home Environment or an authorised VASP.
Note: In the context of this specification it is assumed, that at least one application providing the services of the Service Provider makes use of OSA functions

Services: a service is the user experience provided by one or more applications.

User: For the definition see [1]

Virtual Home Environment: For the definition see [1]

Watcher: For the definition see [7].~~any uniquely identifiable entity that requests presence information about a presentity, or watcher information about a watcher.~~

~~Note: This Release 5 Watcher does not refer to the Watcher of the 3GPP Presence Service that is in Release 6.~~

Watcher Information: For the definition see [7]. ~~information about watchers that have received or may receive presence information about a particular presentity within a particular recent span of time.Note: This Release 5 Watcher Information does not refer to the Watcher Information of the 3GPP Presence Service that is in Release 6.~~

Further 3G related definitions are given in 3G TR 21.905 [3].

End of Change in Clause 3.1

Change in Clause 13.5

13.5 Presence related capability functions

13.5.1 Relationship to Release 6 Presence Service

~~The functionality of requirements defined in this set of functions do not refer to the Presence Service that will be supported in Release 6. Any presence information provided and supported by these functions do not supply or support Presence Information as may be defined by the Release 6 Presence Service.~~Void.

13.5.2 Functions

The OSA interface shall allow an application access to presence capabilities within the network. Presence related information may be requested or supplied by an OSA application and may include, but not limited to presence information pertaining to the presence service as described in [7] or user availability.

An OSA application may act as a requester of presence information (i.e. act as a watcher) and/or act as a supplier of presence information (i.e. act as a presentity). All the capabilities offered to presence service watchers and presentities are described in [7] and may be offered to OSA applications. In addition to the authorisation performed by the OSA Framework, the presence service checks that the application is permitted to access the presence service.

An OSA application may manage or query availability status and/or preferences of a user which may be associated with one or more services (e.g. voice call, IMS sessions, MMS …etc.). Such availability may be determined from a range of existing capabilities.

The following OSA capabilities shall be supported for an application:

- **register as a presentity and/or watcher:**
  - the application shall be able to request the registration as a presentity and/or as a watcher in the presence service. This registration shall include the ability to establish as well as cancel a registration.
- **supply presence related information to the network:**
  - the application shall be able to supply and/or update presence related information (presence information or availability) at any time. An application may modify the availability of a user. - **request the querying and/or modification of presence related data:**
  - the application shall be able to request the querying and/or modification of data other than presence information related to watchers and/or presentities. Such data includes, but is not limited to any access rules pertaining to the presentity to be modified. An application may be able to request the management of availability preferences of a user. Management includes the setting, modification and deletion of availability preferences.
- **request Presence related Information :**

- the application shall be able to request presence related information. The application shall be able to request presence information about a presentity or may request the availability of a user. Such requests may be for the current information, on a periodic basis or for future changes in the presence related information (e.g. arming of event notifications).

- **retrieve watcher information:**

  - the application shall be able to request watcher information about a presentity.

End of Change in Clause 13.5

TSG-SA WG1 #17 **S1-021718**
Durango, USA, 12-16th August 2002 **Agenda Item:**

CR-Form-v7

CHANGE REQUEST

⌘ **22.127** **CR** **057** ⌘ **rev** **-** ⌘ Current version: **6.0.0** ⌘

*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:	⌘	CR on OSA support of a Generic Network Interface Function
Source:	⌘	SA1 (SIEMENS AG)
Work item code:	⌘	OSA3
Date:	⌘	14/08/2002
Category:	⌘	**B**
Release:	⌘	Rel-6

Use one of the following categories:
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R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	This change introduces a Generic Network Interface Function that enables an application to communicate with non-framework service capability features by using communication means. The Generic Network Interface Function enables applications to dynamically negotiate communication means with the SCF. The benefit of this approach is to grant access to new service capability features on the OSA interface without additional OSA specification effort.
Summary of change:	⌘	An application may use communication methods to interact with generic service capability features provided by the network.
Consequences if not approved:	⌘	Additional non framework OSA functions require static implementation.

Clauses affected:	⌘	13.2.2, Annex A

		Y	N			
Other specs affected:	⌘	Y		Other core specifications	⌘	TS 23.127, TS 29.198, TR 29.998
			N	Test specifications		
			N	O&M Specifications		

Other comments:	⌘	Impact on other groups: TSG-SA WG2, TSG-T WG2, TSG-CN WG5. Note that such functionality could realise an interface like the MM7 interface for MMS, which connects a Value Added MMS Service with the MMS Relay/Server.

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First Modified Section

13.2.2 Generic Network Interface Function~~Void~~

The Generic Network Interface Function (GNIF) shall enable an application to communicate with non-framework service capability features (standardised or non-standardised) whereby the OSA interface does not necessarily understand the application-specific messages exchanged between the client application and the service capability feature.

The Generic Network Interface Function enables applications to dynamically negotiate a communication means (e.g. a application protocol or a distributed object model) supported by the SCF. After successful authorisation by the framework and successful negotiation of a communication means the application is allowed to communicate with the SCF.

The following functions shall be provided:

- **Negotiation of the set of communication means provided by the SCF via the GNIF.**

  The GNIF shall provide detailed information about communication means provided by the SCF (e.g. supported application protocols, formal semantic and syntactic descriptions) on request by an application.

- **Usage of the existing functions provided by the SCF.**

  The GNIF shall enable communications between the client application and the SCF. The GNIF shall have the ability to release this communications means at any time.

Next modified section

Annex A (informative) : Use cases

This informative annex describes how the OSA functions described in the normative section of this document could be used to deploy enhanced multimedia services.

A.1 Travel support and information service

Service Scenario Description

The service scenario described below is the following: a user has subscribed to a tourist board information service, and each time he will enter a new interesting location the service provider will offer him to watch a video showing the main attractions of the area. The service is charged 1 Euro per movie.

~~A.2~~ Step by step description

Note: The following description does not imply any physical location of the different functions, or any mapping between the SCFs and the network capabilities. The processes internal to the different entities are not detailed.

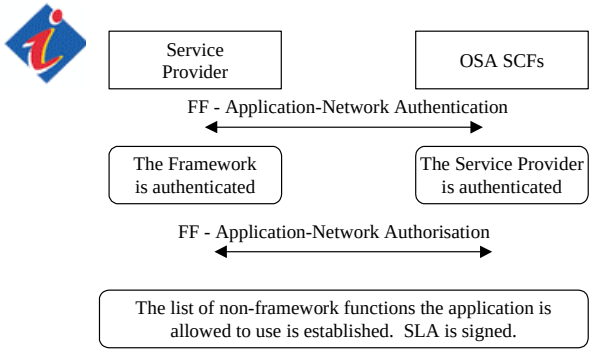
FF: Framework Function

NF: Network Function

UF: User data related Functions

Step 1: On-line Service Level Agreement

This step is intended to sign an on-line service level agreement (SLA) between the information service and the framework.



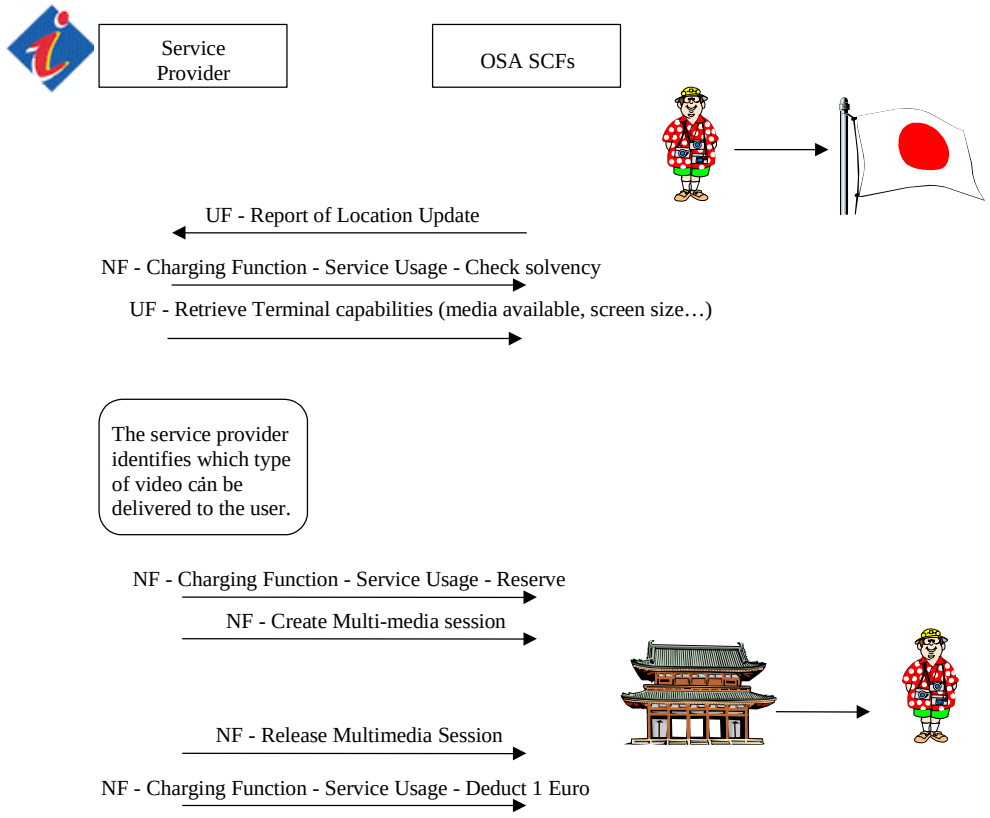
Step 2: Service initialisation

The Service Provider will discover all the service features available in the network (e.g. location update, service usage charging…), and set up the parameters necessary to render the service (i.e. the service provider asks to be notified whenever the user enters a specific geographic area). The list of available service features depends on the SLA.

Note: It is assumed that all the available Service Capability Features have already registered.

Step 3: Service Delivery

The service provider is informed that the user has entered a new geographical area (e.g. Japan). After checking that the user has enough money left on his account, the service provider retrieves the terminal capabilities. Based on this information, the service provider can determine the type of content that can be sent to the user (for example a black and white video if the terminal does not support colour display,…). The service provider will then reserve 1 € in the account of the subscriber. A multimedia session will be established between the service provider and the user, and the user will then be displayed the sightseeing information. Once the movie's display is over, the session will be released and the service fee will be deducted from the user's account.



A.2 Generic Network Interface Service Scenario Description

This use case is intended to give an informative overview how the Generic Network Interface Function can be used to enable communication between an application and a new SCF.

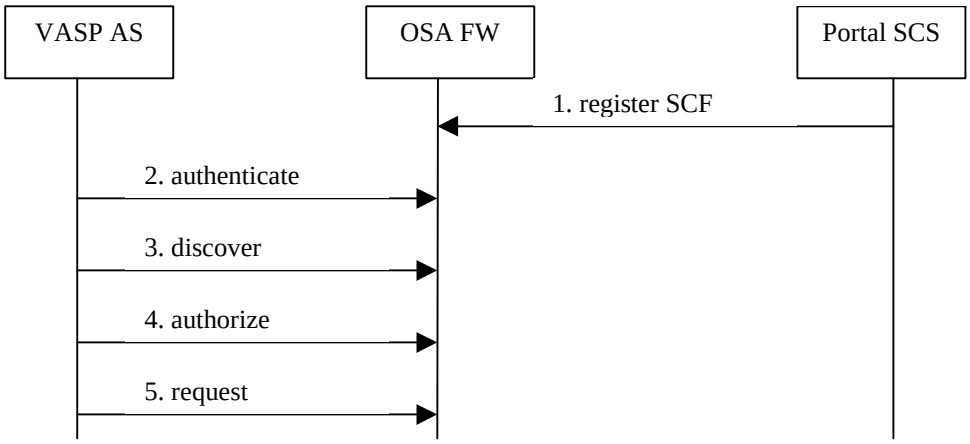
Service Scenario Description:

For the scenario described in this use case the following situation is assumed:

A Value Added Service Provider offers multimedia content to subscribed users. The VASP whishes to distribute the content through a portal (e.g. MMS R/S) offered and maintained by the operator. To ensure secure access to the portal, the operator provides an appropriate **Generic Network Interface Function** on the OSA Gateway. Consequently the access to the portal is covered by common security and maintenance functions offered by the OSA Framework (e.g. trust and security functions and integrity management functions). Using OSA, the VASP may additionally employ a bunch of other sophisticated functions to improve the value added service and to simplify its implementation (e.g. charging functions, location functions, user status functions, etc.).

For the following steps, it is assumed that a valid service level agreement between the VASP and operator exists.

Step A: Registering of the new SCF and request of the SCF by the application



1. The Portal is registered at the OSA Framework as a new Service Capability Feature. It shall be accessible through the Generic Network Interface Function. After this registration process it can be discovered by an external application.

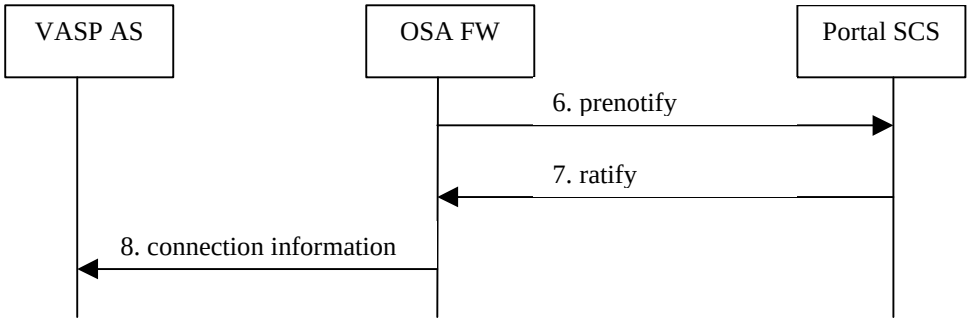
2. The VASP authenticates with the OSA FW using the common FW function.

3. The VASP discovers the desired SCF and ...

4. ... signs the online part for the service level agreement.

5. If step 4 was successful, the VASP can now request an interface to the SCF.

Step B: Gathering connection profile and optional verification



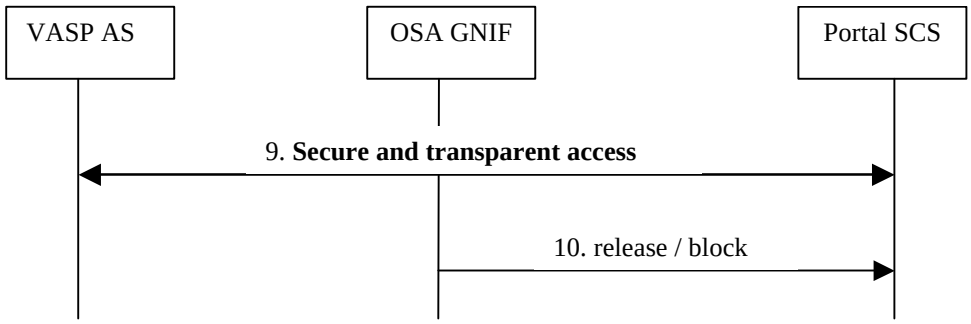
6. The OSA framework now prepares the connection by notifying the communication means. The SCS is now informed that a connection to an application server will follow. If not performed in step 1, additionally the SCS may transfer the needed information to access and use the SCS.

7. Optionally the SCS may ratify the desired connection or update the instruction set at the OSA FW.

8. The OSA framework grants permission to the portal and negotiates the communication means with the external application. This can be e.g. achieved by sending a connection profile with sufficient detailed information (server address, protocol details) and/or an applet to enable connection to the portal.

Note: If static, connection details (i.e. the communication means) may be initially transmitted to the OSA FW during step 1 (registration) then steps 6 and step 7 may be optional

Step C: Establishment and control of the communication.



9. After negotiating, the VASP AS can now establish the communication with the Portal. The specific protocol and communication means used via this connection may be out of scope of OSA standardization. (Potential candidates for such protocols/techniques are e.g. the CORBA Dynamic Invocation Interface, XML/SOAP, Applets or Java Beans).

10. At any time the OSA GNIF may request the portal SCS to release the connection with the application. Such a request may e.g. be initiated by the operator for administrative purposes.

End of Document