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**Source:** SA1  
**Title:** Various Rel-5 CRs to 22.127 on OSA  
**Document for:** Approval  
**Agenda Item:** 7.1.3

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SA Doc	Spec	CR	Rev	Phase	Cat	Subject	Old Vers	New Vers	SA1 Doc
SP-020249	22.127	044		Rel-5	F	Reduction of scope of OSA R5	5.3.0	5.4.0	S1-020868
SP-020249	22.127	045		Rel-5	F	Proposal to remove feature 'Retrieval of Visited Network Capabilities' from OSA Release 5'	5.3.0	5.4.0	S1-020903
SP-020249	22.127	046		Rel-5	F	A more Flexible Event Notification mechanism	5.3.0	5.4.0	S1-021059
SP-020249	22.127	047		Rel-5	F	Clarifications of the terms used for the control of GPRS Sessions and IM Sessions	5.3.0	5.4.0	S1-020867
SP-020249	22.127	048		Rel-5	F	Removal of Presence Service	5.3.0	5.4.0	S1-021171

CR-Form-v4

## CHANGE REQUEST

⌘ **22.127** CR **044** ⌘ ev **-** ⌘ Current version: **5.3.0** ⌘

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

**Proposed change affects:** ⌘ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⌘ Reductions of scope of OSA Release 5		
<b>Source:</b>	⌘ SA1		
<b>Work item code:</b>	⌘ OSA1	<b>Date:</b>	⌘ 28/03/02
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ REL-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: <b>2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>REL-4</b> (Release 4) <b>REL-5</b> (Release 5)

<b>Reason for change:</b>	⌘ In a review of the work plan for Release 5 during CN#15, the report from CN5 indicated a significant delay in certain requirements. Due to heavy workload within CN5, the requirements for Journalling, Information Services User Data Management are unlikely to be completed by June 2002, the extension granted to CN5 by CN on Release 5 completion. This CRs removes these requirements for R5 to make the load on CN5 more manageable.		
<b>Summary of change:</b>	⌘ This CRs proposes the removal of the following OSA Requirements: - User Data Management - Journalling Requirements - Information Services Requirement		
<b>Consequences if not approved:</b>	⌘ Non approval of this CR will lead to a situation of inconsistency between the OSA Service Requirements and actual stage 3.		

<b>Clauses affected:</b>	⌘ 7, 9, 10, 10.1, 13.4		
<b>Other specs Affected:</b>	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘ 23.127 (CR number 43)	
<b>Other comments:</b>	⌘		

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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.

<b>First Modified Section</b>
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## 7 ~~Requirements for user data management~~ Void

~~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.~~

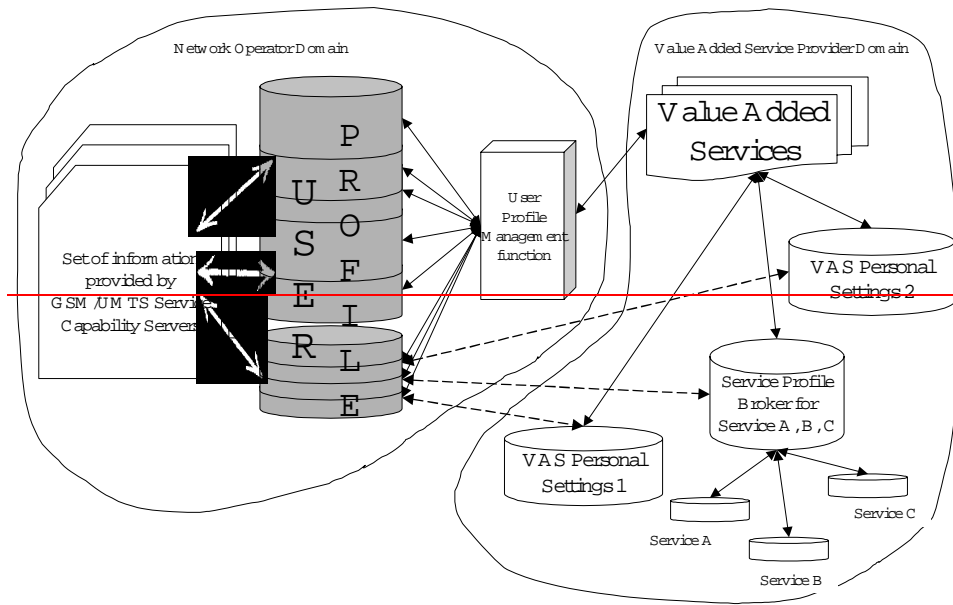
~~VAS shall not be allowed to access the User Profile without permission. It is important to prevent the User Profile from malicious attacks. The OSA Framework functions restrict the applications' access to the User Profile Management (UPM) functions:~~

~~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.~~

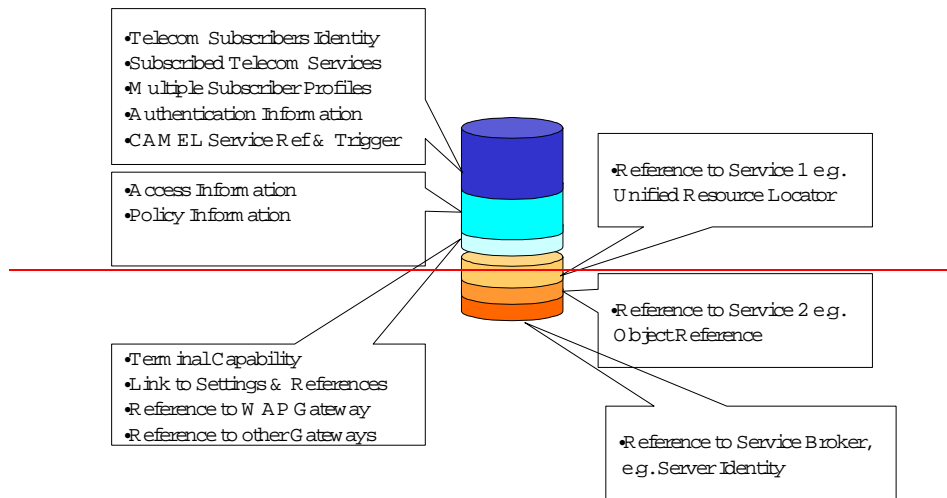


Note: — the dotted line refers to additional Personal Settings. The reference itself shall unambiguously identify the location of the additional personal settings.

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.

## Next Modified Section

## 9 Journalling requirements Void

Applications, that use the OSA interface, may perform actions in the network that might cause costs or potentially undesired effects to the user or operator. Therefore it shall be possible to log usage of the OSA interface and thus to make actions performed through the OSA interface traceable to their originating applications.

Journal Information shall at least consist of the following parts:

- Unique identity of the application
- Date and time of invoking execution of an OSA function
- Name of invoked OSA function
- Identity of the served subscriber.

Additional information may be provided by the application (e.g. name of the service or reference to an application in the terminal).

The OSA shall offer sufficient capabilities to:

- Request an application to supply the network with the application's Journal Information. The network operator may decide on the level of granularity (i.e. with which OSA functions Journal Information shall be provided).

- ~~—Reject execution of OSA functions if insufficient or inaccurate Journal Information is provided by the application.~~
- ~~—Supply a (logging )application with Journal Information collected from various applications.~~

~~Collection of Journal information may take place in the network or by a dedicated application using the OSA interface~~

## Next Modified Section

## 10 Security requirements

[No requirements for this release are identified.](#)

### 10.1 ~~Security requirements on User Profile Management~~

~~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 are 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.~~

## Next Modified Section

### ~~-13.4 Information Services functions~~[Void](#)

~~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 Document**



CR-Form-v4

## CHANGE REQUEST

⌘ **22.127** CR **045** ⌘ ev **-** ⌘ Current version: **5.3.0** ⌘

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

**Proposed change affects:** ⌘ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⌘ Reductions of scope of OSA Release 5		
<b>Source:</b>	⌘ SA1		
<b>Work item code:</b>	⌘ OSA1	<b>Date:</b>	⌘ 01/05/02
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ REL-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: <b>2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>REL-4</b> (Release 4) <b>REL-5</b> (Release 5)

<b>Reason for change:</b>	⌘ In a recent review of the OSA stage 3 work undertaken jointly between SA1 and CN5 during the SA1 SWG meetings in April, the feature of <i>Retrieval of visited network capabilities</i> was not on the list targeted for completion by June 2002. This is the date that CN#15 granted CN5 to complete their work for Release 5. To date, Lucent has been the only contributor of this feature in stage 3 and SA1 feels that the current work is too immature to be completed for Release 5. In order to allow CN5 to focus on a smaller feature set with a higher degree of accuracy, SA1 proposes the postponement of the feature to Release 6.
<b>Summary of change:</b>	⌘ This CRs proposes the removal of the OSA feature "Retrieval of Visited network capability" as described in clause 13.3.6
<b>Consequences if not approved:</b>	⌘ Delay in the release of the OSA API, together with potential errors due to the insufficient time required verify the interface. This may lead to a lack of confidence in the stability of the APIs which would inhibit the uptake of OSA within the service provider community.

<b>Clauses affected:</b>	⌘ 13.3.6		
<b>Other specs Affected:</b>	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘ 23.127 (CR number 42)	
<b>Other comments:</b>	⌘		

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**First Modified Section**~~13.3.6 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 Document**

knowCR-Form-v4

## CHANGE REQUEST

⌘ **22.127 CR 046** ⌘ ev **-** ⌘ Current version: **5.3.0** ⌘

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

**Proposed change affects:** ⌘ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⌘ A more Flexible Event Notification mechanism		
<b>Source:</b>	⌘ SA1		
<b>Work item code:</b>	⌘ OSA1	<b>Date:</b>	⌘ 13/05/2002
<b>Category:</b>	⌘ <b>F</b> Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.	<b>Release:</b>	⌘ REL-5 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)

<b>Reason for change:</b>	⌘ Provisioning of event triggers in the Home Environment. Currently OSA/Parlay applications have to explicitly request for event triggers and notifications in the network. This means that the ASP is responsible for provisioning. The assumption here is that the application has access to the list of users for which events may be triggered. However, in some cases this information is owned by the network operator.  This CR adds an option allowing that provisioning of triggers be explicitly done in the Home Environment (by the Network Operator) and that an application only has to indicate its availability and tell the SCS that it can receive event notifications. In this case, the service provider does not need to have access to the list of users to which the events are applicable.
<b>Summary of change:</b>	⌘ This CR makes it clear that there are two alternatives for supporting event notifications. Either the application can provision the appropriate event triggers directly through the SCS or the HE may provision the event triggers, in which case the application is just responsible for event handling. This gives the network operator more flexibility on how to handle event notifications.
<b>Consequences if not approved:</b>	⌘ Inflexible event notification mechanism that may require the service provider to have access to subscription information.

<b>Clauses affected:</b>	⌘ 12
<b>Other specs Affected:</b>	⌘ <input checked="" type="checkbox"/> Other core specifications ⌘ TS 23.127, TS 29.198, TR 29.998 <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications
<b>Other comments:</b>	⌘ SA2 and CN5 have already considered this type of event notification in their work

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**First Modified Section**

## 12 Event Notification Function

The Event Notification Function shall allow an application to specify the initial point of contact which it is interested in. The Event Notification Function provides the necessary mechanisms which enables an application to request the notification of subscriber or network related event(s). An application may in addition request the cancellation of subscriber or network related event notification.

For all subscriber related events the Event Notification Function shall support two ways for an application to subscribe to notifications: the application shall ~~always either~~ specify the subscriber for which the Event Notification Function is valid or indicate that it is ready to receive user related notifications for any subscriber. The application may be responsible for the explicit provisioning of the subscriber related event notification or it may leave the provisioning of the notifications to the Home Environment operator and just indicates that it is ready to receive notifications. An application may use both mechanisms at the same time. Once an application has enabled the notification of event(s), the Event Notification Function shall report the event(s), including the identification of the user to which the event applies, until such time the application explicitly requests the termination of the event(s) notification.

When the event occurs, the application that requested the event is informed.. The notification of the event shall be accompanied by unambiguous information identifying the original request and event related data.. For example, in case of an application is interested in “message” the notification to the application shall indicate whether it is incoming or outgoing, in case of chargeable events, the application shall receive details as used at the network to create a Call Detail Record. In this case, processing in the network is not suspended after notification of the event to the application.

The Event Notification Function includes the availability of offering additional criteria to be specified by the application. The set of criteria is individual and may vary for the event requested. The detailed set of criteria available for each of the events below are described in [6].

### 12.1 Subscriber Related events:

- An initial call processing event occurs.

when a call to or from a given user is created and this event is armed by an application, that application shall be notified.

- A message is sent or received.

when a message to or from a given user is sent or received and this event is armed by an application, that application shall be notified.

- A chargeable event happens.

when a chargeable event occurs for a given user and this event is armed by an application, that application shall be notified.

- The user’s status is changed.

when a subscriber registers to a network or when a given user changes her status (e.g. from idle to busy) and this event is armed by an application, that application shall be notified. Registration in this sense is further detailed in the chapter on User Status Functions. Attach and detach applies for CS and PS.

- The user’s location is changed.

when a given user changes her location (e.g. leaving a certain area which is “identifiable” by the network) and this event is armed by an application, that application shall be notified.

- The Terminal Capabilities are changed.

when the capabilities of a terminal change (e.g. when a keyboard is attached) and this event is armed by an application, that application shall be notified.

Note: The ability to support this function is dependent on the ability of a terminal (through e.g. MExE or WAP) to notify changes in its capabilities. Therefore this function will *not* be able to supply event notifications for terminals not supporting notification of their terminal capabilities.

## 12.2 Network Related Events:

- A network fault management condition is met,

when a fault management condition occurs at the underlying network (e.g. congestion of network components) and this event is armed by an application, that application shall be notified.

- A network service or network service capability de-registers,

when a network service capability feature de-registers with the Framework all applications which are currently authorised to use this service capability feature shall be notified.

## 12.3 Other Related Events:

- A change in presence related information.

If any presence related information changes (such as one or more presence information attributes or a user's availability), and this event is armed by the application, that application shall be notified. Presence information may be associated with a user, device or service, or any abstract entity that has the ability to report presence information.

<b>End of Document</b>
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CR-Form-v4

## CHANGE REQUEST

⌘ **22.127** CR **047** ⌘ ev **-** ⌘ Current version: **5.3.0** ⌘

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

**Proposed change affects:** ⌘ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⌘	Clarifications of the terms used for the control of GPRS Sessions and IM Sessions
<b>Source:</b>	⌘	SA1
<b>Work item code:</b>	⌘	OSA1
		<b>Date:</b> ⌘ 8/04/02
<b>Category:</b>	⌘	<b>F</b>
		<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><i>Use <u>one</u> of the following categories:</i></p> <p><b>F</b> (correction)</p> <p><b>A</b> (corresponds to a correction in an earlier release)</p> <p><b>B</b> (addition of feature),</p> <p><b>C</b> (functional modification of feature)</p> <p><b>D</b> (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a>.</p> </div> <div style="width: 45%;"> <p><i>Use <u>one</u> of the following releases:</i></p> <p><b>2</b> (GSM Phase 2)</p> <p><b>R96</b> (Release 1996)</p> <p><b>R97</b> (Release 1997)</p> <p><b>R98</b> (Release 1998)</p> <p><b>R99</b> (Release 1999)</p> <p><b>REL-4</b> (Release 4)</p> <p><b>REL-5</b> (Release 5)</p> </div> </div>

<b>Reason for change:</b>	⌘	The Call Control Function is a generic OSA capability that applies to circuit switched calls, GPRS sessions and IM Sessions. The term "call" has traditionally been applied to circuit switched call where the term session is generally applied IP based connections (e.g. Packet Switched or IP multimedia). The purpose of this proposed change is to clarify the terminology used in this specification, including the renaming of the Call Control Function. No change in functionality is proposed.
<b>Summary of change:</b>	⌘	The Call Control Function as been renamed "Call and Session Control Function". In addition, the term "call" has been exclusively used for circuit switched calls and while the term session applies to Packet Switched Sessions and IP multimedia subsystem (IMS) sessions.
<b>Consequences if not approved:</b>	⌘	Confusion as to what constitutes as call.

<b>Clauses affected:</b>	⌘	2.1, 3.1, 3.2, 13.2.1.2, 13.1.2.2
<b>Other specs Affected:</b>	⌘	<input type="checkbox"/> Other core specifications ⌘ <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications
<b>Other comments:</b>	⌘	

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## 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 22.121: 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
- [8] [3GPP TS 22.228: IP Multimedia Subsystem \(IMS\) Stage 1](#)

### 2.2 Informative references

- [10] World Wide Web Consortium Composite Capability/Preference Profiles (CC/PP): A user side framework for content negotiation ([www.w3.org](http://www.w3.org))

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## 3 Definitions and abbreviations

### 3.1 Definitions

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

**Access Rules:** For the definition see [7].

**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 (~~this could be connection-oriented or connection-less~~). This pertains to the CS CN domain, ~~the PS CN domain and the IP Multimedia Subsystem~~.

**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].

**Presence Entity (presentity):** For the definition see [7].

**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 Information:** For the definition see [7].

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

## 3.2 Abbreviations

For the purposes of this TS the following abbreviations apply:

API	Application Programming Interface
CAMEL	Customised Application For Mobile Network Enhanced Logic
HE	Home Environment
<u>PS</u>	<u>Packet Switched</u>
PSE	Personal Service Environment
VHE	Virtual Home Environment
OSA	Open Service Access
SCF	Service Capability Feature
MExE	Mobile Execution Environment

Further 3G related abbreviations are given in 3G TS 21.905 [3].

### First Modified Section

## 8 Charging requirements

The charging functionality of OSA allows an application to raise a charge against a subscriber's account for goods and services provided to her. It enables the invoicing, by the operator, of soft (e.g. download of software, music,...) and hard goods (e.g. CDs, books,...), which potentially are provided by third parties.

Additionally, the charging functionality of OSA shall provide for the maintenance of non-monetary subscriber accounts. An application may add or deduct non-monetary units to or from these accounts.

The responsibility for the subscriber accounts can be assigned to either the home network or elsewhere.:

- If the home network does not handle the accounts itself, charging requests are sent from the home network (and possible other applications) to a dedicated charging application, typically a charging centre. This case is out of scope of OSA.
- If the accounts are handled by the home network, the operator takes care of them. They may be used to charge for network resource usage (*call charging*, as it is done today) as well as any non-telecommunication related activity (*any E-commerce activity like service usage, online purchases...*)

OSA shall provide sufficient functions to support charging when the accounts are handled by the home network.

Two cases need to be considered in more detail:

**Call, Session and Event Charging:** OSA shall enable applications to control the charge of a call, [a session \(PS Session or IM Session\)](#) and / or an event that is under supervision of this application. OSA shall allow an application to provide additional charging information to the network;

**Service Usage** (e.g. Online Purchases): On the other hand, OSA shall allow to employ the charging capabilities of the network to charge subscribers for any kind of service or even online purchases. Calculation of the charge may be based on monetary and/or non monetary grounds.

Beyond this, there are **general charging functions** on subscriber accounts (monetary and non-monetary) that shall be available via OSA:

- Query the current account balance and current reservations.

- Monitor account access (send notifications if charges or recharges are applied to a subscriber's account).
- Retrieve the history of the transactions

## Next Modified Section

## 13.2 Network functions

The Network functions represent the total collection of network resources. The following subclauses define generic network functions e.g. for ~~Session Control and~~ Message Transfer.

### 13.2.1 Call [and Session](#) Control -functions

This subclause details with Call [and Session](#) Control functions. The purpose of this function is to allow applications to control and monitor ~~calls, both circuit-calls, and~~ packet switched [sessions and IM Sessions](#).

The application may request the quality of service when first negotiated at the start of the call and may also request the network to notify the application of any changes in QoS (conversational, background, interactive and streaming class - see [4]) which take place during the call.

For QoS information, the Call [and Session](#) Control Functions allows applications to monitor the amount of used traffic channels and bandwidth (e.g. for HSCSD) and used timeslots (e.g. for GPRS).

#### 13.2.1.1 CS Call Control functions

This subclause details with circuit switched call control functions. The purpose of this function is to allow applications to control and monitor calls.

Applications should have the ability to :

- Release Calls:

This provides the ability for the application to force the release of a call. The application may provide an indication of the reason for release of the call.

- Control Calls:

This provides the ability for an application to modify the information pertaining to the call at the time of establishment of the call. The application may also allow the call to continue with or without the modified information pertaining to the call. The application shall have the ability to request call events of the call under control to be observed by the network and reported back to the application.

- Request call information:

This provides the ability for an application to request information relating to the call of interest specified in advance. Requested information includes at least call duration, call end time.

- Monitor calls:

This provides the ability for an application to monitor for call duration and tariff switching moments. An application may specify a threshold for the duration of a call or a part thereof. The application shall have the ability to grant new thresholds when the expiry of a previously set threshold has been reported to the application. When an event is subject to be monitored and the event is met, the application shall get informed accompanied with sufficient information.

- Presentation of, or restriction of, information associated with a party involved in a call (e.g. calling line ID, calling name);
- Relinquish control over a call

This allows an application to relinquish control over a call but still allowing the established call to continue. Once the control of the call has been relinquished, the application may not be able to regain control over that call.

- Interact with a user

This provides the ability for an application to interact with a user. An application may be able to send specific information to the user and may request the collection of data from the user. Sending information to the user or collecting information from the user shall be supported when the user is engaged in a call (e.g. USSD, DTMF) or call-unrelated (e.g. USSD, SMS). The information sent to the user may include an indication of an announcement, text or user specific data.

Note 1: Call related user interaction may e.g. be used to play/record/customise user specific announcements while through call-unrelated user interaction e.g. service preferences may be managed.

For each call it shall be possible to specify:

- the events on which monitoring is required ([10]).

Note 2: The mapping to service capabilities is for further study (it shall be investigated to which extend the requirements above fit to CAMEL, MEXE and other service capabilities).

### 13.2.1.2 ~~PS Call Control~~ PS Session Control- functions

This subclause details with ~~packet switched PS~~ call-session control functions. The purpose of this function is to allow applications to control and monitor ~~GPRS PS~~ sessions. A ~~GPRS PS~~ Session may consists of one or more GPRS PDP context.

Applications should have the ability to :

- Release a PDP context:

This provides the ability for the application to force a PDP context to be released. The application may provide an indication of the reason for release of the PDP context.

- Control a PDP context:

This provides the ability for an application to modify the information pertaining to the PDP context at the time of establishment. The application may also allow the PDP context to continue with or without the modified information pertaining to the PDP context. The application shall have the ability to request events to be observed by the network and reported back to the application.

- Monitor a PDP context:

This provides the ability for an application to monitor for PDP context duration and tariff switching moments.. An application may specify a threshold for the duration of a PDP context or a part thereof. The application shall have the ability to grant new thresholds when the expiry of a previously set threshold has been reported to the application.

- Monitor a ~~GPRS PS~~ session:

This provides the ability for an application to monitor for ~~GPRS PS~~ session data volume. An application may specify a threshold for the amount of data allowed to be transferred within a ~~GPRS PS~~ session. The application shall have the ability to grant new thresholds when the expiry of a previously set threshold has been reported to the application.

### 13.2.1.3 IM Session Control functions

#### IM Session Control

##### Create ~~Multi-media~~ IM Sessions

The application shall be able to establish IM sessions between two or more parties with certain media capabilities. The application may add or remove parties at any time for any session. An application may add additional sessions with certain media capabilities between any parties already involved in an session. Sessions

with multiple parties may lead to the creation of a ~~m~~Multi-media Conference Call. This can either be an ad-hoc conference creation or it can refer to resources that were reserved in advance.

#### **Release ~~Multimedia-IM~~ Sessions**

This provides the ability for an application to force the release of an ~~IM multimedia~~ session. This may be limited to the release of certain parties from the session or may be the release of all the parties.

#### **Relinquish control over an IM session**

This allows an application to relinquish control over ~~the-IM~~ sessions.

#### **Party join/leave control**

The application shall be informed when a new call party wants to join/leave the conference. It shall be possible for the application to allow or reject the inclusion of the new party to a conference.

#### **Presentation of, or restriction of, information associated with a party involved in a session (e.g. calling line ID, calling name);**

### **Media Control**

#### **Control media channels**

The application shall have the ability to control media channels originated by (or on behalf of) a user or media channels terminated to a user. This control includes, but is not limited to the barring of a media channel request, allowing the media channel establishment to continue with or without modified information, addition or removal of additional media channels, temporarily suspend a media channel (place on hold), open, close or modify the parameters of the media channels.

#### **Relinquish control over specific media channels**

This allows an application to relinquish control over the media stream. When it relinquishes control over certain media channels it does not lose control over the entire session.

#### **Reserve/Free conference resources**

The application shall be able to reserve resources in the network or free earlier reserved resources for a conference in advance.

### **Information**

#### **Request Notification of Media channel events**

The application shall be able to request notification of certain events associated with a type of media channel. Events include, but not limited to: a user initiating or closing a session, an incoming IM session request to user or a terminating user unable to accept an incoming IM session request.

#### **Monitoring of Media channels**

The application shall be able to request all the media channels currently available on a IM session. In addition the application must be able to monitor the opening and closing of channels for media for a specified session.

CR-Form-v4

## CHANGE REQUEST

⌘ **22.127** CR **048** ⌘ ev **-** ⌘ Current version: **5.3.0** ⌘

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

**Proposed change affects:** ⌘ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⌘ Removal of References to Presence Service in OSA Release 5		
<b>Source:</b>	⌘ SA1		
<b>Work item code:</b>	⌘ OSA1	<b>Date:</b>	⌘ 01/05/02
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ REL-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="http://www.3gpp.org/Specs/CRs.htm">TR 21.900</a> .		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)

<b>Reason for change:</b>	⌘ During SA#15, the Presence Service work item was deleted from Release 5. 3GPP Presence Service will now be part of Release 6.  Support of Release 6 Presence Service, or requirements which may be misleadingly mis-interpreted as being Release 6 Presence Service, are clarified to be consistent with the SA#15 decision.
<b>Summary of change:</b>	⌘ Reference to the Presence Service Stage 1 (TS 22.240) is removed. Definitions adopted from the (deleted) Release 5 Presence Service are carefully clarified to state that they are not the definitions from Release 6 Presence Service. Finally, the section dealing with the Presence Related Capability Feature is prefaced to clearly state that they are not supporting the Release 6 Presence Service.
<b>Consequences if not approved:</b>	⌘ Reference will be made to a specification that does not exist in Release 5, and misinterpretation/confusion by SA2 and CN5 of Release 6 Presence Service requirements.

<b>Clauses affected:</b>	⌘ 2.1, 3.1, 13.5	
<b>Other specs Affected:</b>	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘ 23.127
<b>Other comments:</b>	⌘	

**How to create CRs using this form:**

Comprehensive information and tips about how to create CRs can be found at: [http://www.3gpp.org/3G\\_Specs/CRs.htm](http://www.3gpp.org/3G_Specs/CRs.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.

<b>First Modified Section</b>
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## 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](#)

<b>Next Modified Section</b>
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## 3 Definitions and abbreviations

### 3.1 Definitions

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

**Access Rules:** [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](#)~~For the definition see [7].~~

**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 (this could be connection oriented or connection less). This pertains to the CS CN domain, the PS CN domain and the IP Multimedia Subsystem.

**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]

**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:** [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].

## Next Modified Section

### 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.

#### 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.

~~Note : Registration of a watcher is not covered in TS 22.141 and hence FFS.~~

- **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 Document**