TSGS#27(05) 0059

Source: **SA1**

Title: **CRs to various TSs on Removal of Reference to TS 22.121 (Rel-6, Rel-7)**

Document for: **Approval**

Agenda Item: **7.1.3**

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-27	SP-050059	22.101	159	-	Rel-6	F	Removal of Reference to TS 22.121	6.8.0	6.9.0	S1-050215
SP-27	SP-050059	22.101	160	-	Rel-7	A	Removal of Reference to TS 22.121	7.0.0	7.1.0	S1-050252
SP-27	SP-050059	22.105	043	-	Rel-6	F	Removal of Reference to TS 22.121	6.2.0	6.3.0	S1-050216
SP-27	SP-050059	22.127	075	-	Rel-6	F	Removal of References to TS 22.121	6.7.0	6.8.0	S1-050217
SP-27	SP-050059	22.140	047	-	Rel-6	F	Removal of Reference to TS 22.121	6.6.0	6.7.0	S1-050218
SP-27	SP-050059	22.141	019	-	Rel-6	F	Removal of Reference to TS 22.121	6.3.0	6.4.0	S1-050219
SP-27	SP-050059	22.228	027	-	Rel-6	F	Removal of Reference to TS 22.121	6.7.0	6.8.0	S1-050220
SP-27	SP-050059	22.228	030	-	Rel-7	A	Removal of Reference to TS 22.121	7.0.0	7.1.0	S1-050253

TSG-SA WG1 #27 **S1-050215**
Cape Town, South Africa, 17th to 21st January 2005 **Agenda Item:**

CR-Form-v7.1

CHANGE REQUEST

⌘ **22.101** **CR** **0159** ⌘ **rev** **-** ⌘ Current version: **6.8.0** ⌘

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

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

Title:	⌘	Removal of Reference to TS 22.121
Source:	⌘	SA1 (Research In Motion)
Work item code:	⌘	TEI6
Date:	⌘	19/01/2005
Category:	⌘	**F**
Release:	⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
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Ph2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*
Rel-7	*(Release 7)*

Reason for change:	⌘	TSG SA#26 agreed that TR 22.121 would not be carried into Rel-6. TS 22.101 currently makes reference to TS 22.121.
Summary of change:	⌘	Removal of Reference and associated VHE clause.
Consequences if not approved:	⌘	22.101 will contain a reference to a non-existent specification

Clauses affected:	⌘	2.1, 4.3, 4.5

		Y	N			
Other specs affected:	⌘		X	Other core specifications	⌘	
			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.

1 Scope

This Technical Specification (TS) describes the Service Principles for PLMNs specified by 3GPP. Principles and requirements for interworking with WLAN are covered in TS22.234 [35].

3GPP specifications provide integrated personal communications services. The system will support different applications ranging from narrow-band to wide-band communications capability with integrated personal and terminal mobility to meet the user and service requirements of the 21st century.

3GPP specifications allow the realisation of a new generation of mobile communications technology for a world in which personal communications services should allow person-to-person calling, independent of location, the terminal used, the means of transmission (wired or wireless) and the choice of technology. Personal communication services should be based on a combination of fixed and wireless/mobile services to form a seamless end-to-end service for the user.

3GPP specifications should be in compliance with the following objectives:

a) to provide a single integrated system in which the user can access services in an easy to use and uniform way in all environments;

b) to allow differentiation between service offerings of various serving networks and home environments;

c) to provide a wide range of telecommunications services including those provided by fixed networks and requiring user bit rates of up to 2 Mbits/s as well as services special to mobile communications. These services should be supported in residential, public and office environments and in areas of diverse population densities. These services are provided with a quality comparable with that provided by fixed networks such as ISDN;

d) to provide services via hand held, portable, vehicular mounted, movable and fixed terminals (including those which normally operate connected to fixed networks), in all environments (in different service environments - residential, private domestic and different radio environments) provided that the terminal has the necessary capabilities;

e) to provide support of roaming users by enabling users to access services provided by their home environment in the same way even when roaming.

f) to provide audio, data, video and particularly multimedia services;

g) to provide for the flexible introduction of telecommunication services;

h) to provide within the residential environment the capability to enable a pedestrian user to access all services normally provided by fixed networks;

i) to provide within the office environment the capability to enable a pedestrian user to access all services normally provided by PBXs and LANs;

j) to provide a substitute for fixed networks in areas of diverse population densities, under conditions approved by the appropriate national or regional regulatory authority.

k) to provide support for interfaces which allow the use of terminals normally connected to fixed networks.

2 References

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

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2.1 Normative references

[1] 3GPP TS 22.105 “Services and Service Capabilities”

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[3] 3GPP TS 22.038: "SIM application toolkit, stage 1"

[4] 3GPP TS 22.001: " Principles of Circuit telecommunication services supported by a Public Land Mobile Network (PLMN)".

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[15] 3GPP TS 21.133: "Security Threats and Requirements"

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[17] 3GPP TS 22.042: "Network Identity and Time Zone, Service Description, Stage 1"

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[19] 3GPP TS 31.102: "USIM Application Characteristics"

[20] 3GPP TS 23.221 “Architectural Requirements”

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[23] 3GPP TS 29.002: “Mobile Application Part (MAP) specification ”

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[28] RFC 3261: "SIP: Session Initiation Protocol"

[29] 3GPP TR 21.905: “ Vocabulary for 3GPP Specifications”

[30] 3GPP TS 26.233: "Packet Switched Streaming Service (PSS) ; General Description"

[31] 3GPP TS 26.234: "Packet Switched Streaming Service (PSS) ; Protocols and Codecs"

[32] 3GPP TR 22.934: "Feasibility study on 3GPP system to Wireless LAN interworking"

[33] RFC 2486: "The Network Access Identifier"

[34] TS 51.011: "Specification of the Subscriber Identity Module - Mobile Equipment (SIM-ME) interface", Release 4

[35] TS22.234: "Requirements on 3GPP system to wireless local area network (WLAN) interworking"

[36] 3GPP TS 31.101: "UICC-terminal interface; Physical and logical characteristics"

3 Definitions, symbols and abbreviations

3.1 Definitions

Definitions are given in 3GPP TR 21.905 [29].

3.2 Abbreviations

For the purposes of this TS, the following abbreviations apply:

ME	Mobile Equipment
PC	Personal Computer

Further abbreviations are given in 3GPP TR 21.905 [29].

4 General

4.1 Aims of 3GPP specifications

It shall be capable of delivering audio, text, video and graphics direct to people and provide them with access to the next generation of information based services. It moves mobile and personal communications forward from existing systems, delivering massmarket low-cost digital telecommunication services.

The aims are:

- to enable users to access a wide range of telecommunications services, including many that are today undefined as well as multi-media and high data rates.
- to facilitate the provision of a high quality of service (particularly speech quality) similar to that provided by fixed networks;
- to facilitate the provision of small, easy to use, low cost terminals with long talk time and long standby operation;
- to provide an efficient means of using network resources (particularly radio spectrum).

4.2 Standardisation of Service Capabilities

Existing systems have largely standardised the complete sets of teleservices, applications and supplementary services which they provide. As a consequence, substantial re-engineering is often required to enable new services to be provided and the market for services is largely determined by operators and standardisation. This makes it more difficult for

operators to differentiate their services.

3GPP shall therefore standardise service capabilities and not the services themselves. Service capabilities consist of bearers defined by QoS parameters and the mechanisms needed to realise services. These mechanisms include the functionality provided by various network elements, the communication between them and the storage of associated data. This TS provides a conceptual description of a service architecture and architecture requirements which aim to provide service capabilities. It is intended that these standardised capabilities should provide a defined platform which will enable the support of speech, video, multi-media, messaging, data, other teleservices, user applications and supplementary services and enable the market for services to be determined by users and home environments.

4.2.1 Provision of service capabilities in shared networks

The provision of services and service capabilities that is possible to offer in a network shall not be restricted by the existence of the network sharing It shall be possible for a core network operator to differentiate its service offering from other core network operators within the shared network.

It shall be possible to control the access to service capabilities offered by a shared network according to the core network operator the user is subscribed to.

4.3 Efficient Use of Network Resources

Service capabilities shall take account of the discontinuous and asymmetric nature of most teleservices and user applications in order to make efficient use of network resources (particularly radio resources).

Service capabilities shall be provided in a wide range of radio operating environments (where a radio environment is characterised in terms of propagation environment, mobile equipment relative speeds and traffic characteristics~~ see [2]~~). Although 3GPP aims to minimise the number of radio interfaces and to maximise commonality between them, it may utilise several radio interfaces, each optimised for different environments. Each radio interface might provide differing service capabilities. 3GPP specifications include UTRAN radio interface supporting two modes (TDD and FDD)and GERAN radio interface.

3GPP specifications shall provide a mechanism which will enable a piece of user equipment (UE) to adapt to different radio interfaces as necessary and to determine the service capabilities available. The specifications shall also provide a mechanism which will enable a UE to select radio interfaces capable of providing appropriate service capabilities.

4.4 Compatibility with Global Standards

3GPP specifications aim to be compatible with IMT-2000 and to provide global terminal mobility (roaming), enabling the user to take his/her terminal to different regions of the world and to be provided with services. It is probable that different regions of the world will adopt different radio interface technologies. IMT-2000, as a global standard, should therefore enable a IMT-2000 terminal to determine the radio interface technology and the radio interface standard used in a region. Global terminal roaming also requires the global standardisation of service capabilities. As far as possible the method of indication of the radio interface standard and available service capabilities shall be aligned with IMT-2000.

3GPP specifications shall enable users to access the services provided by their home environment in the same way via any serving network provided the necessary service capabilities are available in the serving network.

The 3GPP specifications will be available for the partner organisations to adopt as their regional standards. For example in Europe, ETSI may adopt them as standards for both GSM and UMTS.

4.5 ~~Virtual Home Environment~~Void

~~The 3GPP specifications aim to provide the user with a comprehensive set of services and features, which have the "same look and feel" wherever they are used. For further information see 3GPP 22.121 [2]. Especially the VHE shall provide for:~~

- ~~a generic set of services / features and access capabilities, if the required service capabilities are available in the visited network;~~

- ~~the means for serving network, home environments and user to re-use existing system capabilities to define their own specific features / services;~~
- ~~user personalisation of features / services;~~
- ~~a personalised service set being used via all access and transport networks, subject to physical limitations;~~
- ~~the ability for the user to have access to personalised services from any suitable UE;~~
- ~~regional or network based variations, enhancements to the basic services;~~
- ~~future evolution of 3GPP specification itself.~~

TSG-SA WG1 #27 **S1-050252**
Cape Town, South Africa, 17th to 21st January 2005 **Agenda Item:**

CR-Form-v7.1

CHANGE REQUEST

⌘ **22.101** **CR** **160** ⌘ **rev** **-** ⌘ Current version: **7.0.0** ⌘

*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:	⌘	Removal of Reference to TS 22.121
Source:	⌘	SA1 (Research In Motion)
Work item code:	⌘	TEI7
Date:	⌘	20/01/2005
Category:	⌘	**A**
Release:	⌘	Rel-7

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Other comments:	⌘	

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- ~~future evolution of 3GPP specification itself.~~

CR-Form-v7.1

CHANGE REQUEST

⌘ **22.105** **CR** **043** ⌘ **rev** **-** ⌘ Current version: **6.2.0** ⌘

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

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R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*
Rel-7	*(Release 7)*

Reason for change:	⌘	TSG SA#26 agreed that TR 22.121 would not be carried into Rel-6. TS 22.105 currently makes reference to TS 22.121, whereas it is more appropriate for TS 22.105 to refer to TS 22.127.
Summary of change:	⌘	References to TS 22.121 have been replaces with references to TS 22.127.
Consequences if not approved:	⌘	TS 22.105 will contain a reference to a non-existent specification

Clauses affected:	⌘	2.1, 8, 8.1, 8.2

Other specs affected: ⌘

Y	N	
	X	Other core specifications
	X	Test specifications
	X	O&M Specifications

⌘

Other comments: ⌘

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
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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.

1 Scope

Existing systems have largely standardised the complete sets of bearer services, teleservices and supplementary services which they provide. 3GPP specifications specify service capabilities rather than services, allowing service differentiation and system continuity. This Technical Specification (TS) describes how and what kind of services the user has access to.

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 22.001: "Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN)".

[2] 3GPP TS 02.002: "Circuit Bearer services supported by a Public Land Mobile Network (PLMN)".

[3] 3GPP TS 22.003: "Circuit Teleservices supported by a Public Land Mobile Network (PLMN)".

[4] 3GPP TS 22.004: "General on supplementary services".

[5] 3GPP TS 22.038: " SIM toolkit Stage 1".

[6] 3GPP TS 22.057: "Mobile Execution Environment (MExE); Service description; Stage 1".

[7] 3GPP TS 22.060: "General Packet Radio Service (GPRS) stage 1".

[8] 3GPP TS 22.078: "Customised Applications for Mobile network Enhanced Logic (CAMEL); Service definition - Stage 1".

[9] 3GPP TS 22.101: "Service principles".

[10] ~~3GPP TS 22.121: "Virtual Home Environment (VHE), Stage 1".~~Void

[11] 3GPP TS 22.135: "Multicall, stage 1".

[13] 3GPP TS 33.102: "3G Security, Security Architecture".

[14] 3GPP TS 23.107: "QoS Concept and Architecture; Stage 2".

[15] 3GPP TS 22.127: "Service Requirement for the Open Services Access (OSA)"

***** Next change *****

8 Service Capability features

Services Capability Features are open, technology independent building blocks accessible via a standardised application interface. This interface shall be applicable for a number of different business and applications domains (including besides the telecommunication network operators also service provider, third party service providers acting as HE-VASPs, etc.).

All of these businesses have different requirements, ranging from simple telephony and call routing, virtual private networks, fully interactive multimedia to using UE based applications.

The service capability features shall enable applications to make use of the service capabilities (e.g. CAMEL, MExE, etc) of the underlying network in an open and secure way.

Application/Clients access the service capability features via the standardised application interface. This means that a single service capability feature is accessible and visible to application/clients via the method/operation invocations in the interface.

Two different types of service capability features can be distinguished:

- **Framework service capability features**: these shall provide commonly used utilities, necessary for the non-framework service capability features to be accessible, secure, resilient and manageable.
- **Non-Framework service capability features**: these shall enable the applications to make use of the functionality of the underlying network capabilities (e.g. User Location service capability features).

For further information see 3GPP TS 22.~~121~~ 127 [15~~0~~].

8.1 Framework service capability features

Framework service capability features will be used e.g. for authentication, registration, notification, etc. and provide functionality that is independent of any particular type of service. Other commonly used service capability features may be added later.

Examples of Framework Service Capability features are (3GPP TS 22.127~~1~~[15~~0~~]):

- Authentication
- User-Network Authentication
- Application-Network Authentication
- User-Application Authentication
- Authorisation
- Application-Network Authorisation
- User-Application Authorisation
- Registration
- Discovery
- Notification.

8.2 Non-Framework service capability features

The Non-Framework service capability features represent the total collection of service capability features that are not included in the Framework. These non-framework service capability features enable the application to make use of the functionality provided by the network and service capabilities.

Service capability features shall be defined as much as possible in a generic way to hide the network specific implementation. To achieve this, it is necessary to identify the functionality that is provided by more than one service capabilities. For example, User Location can be produced in several underlying ways. This functionality can be captured once when defined the service capability features in a generic way. It is important that the generic part becomes as large as possible.

When applications use the generic service capability features, these applications become independent of (portable over) underlying service capabilities. Applications shall however still be able to request service capability features specific to a service capability (e.g. Call Setup from CAMEL). This will increase dependency of the used service capability.

Examples of Non-Framework service capability features are (3GPP TS 22.~~121~~ 127 [1~~5~~0]):

- Session Control
- Security/Privacy
- Address Translation
- Location

  The precision of the location shall be network design dependent, i.e. an operator choice. This precision may vary from one part of a network to another. It may be chosen to be as low as hundreds of meters in some place and as accurate as 5 meters in other place. It is required that a minimum precision of around 50 meters can be achieved in all types of terrestrial radio environment. Technical issues may constrain the precision to be mobile state dependent as well (mobile idle / mobile in communication). Several design optional features (e.g. size of the cell, adaptive antenna technique, path loss estimation technique...) shall allow the network operator to reach cost effectively the target precision.

  Because there may be very different uses of the location information;

  - It shall be possible to make the information available to the user, HE/SN and value added service providers. The user shall be able to restrict access to the location information (permanently or on a per call basis). The restriction can be overridden by the network operator when appropriate (e.g. emergency calls).
  - It shall be possible to set the delay to get the location information (the situation is quite different whether the information is needed for call routing or if it is needed by a user application).
  - It shall be possible to select the frequency of the location information update.
  - to identify and report when the user's terminal enters or leaves a specified geographic area.
  - It shall be possible to specify the area as a circular zone (centre and radius) to a resolution that will be limited by the accuracy capability of the part of the serving network where the user is registered.
- User Status
- Terminal Capabilities
- Messaging
- Data Download
- User Profile Management
- Charging

CR-Form-v7.1

CHANGE REQUEST

⌘ **22.127** **CR** **075** ⌘ **rev** **-** ⌘ Current version: **6.7.0** ⌘

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

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

Title:	⌘	Removal of References to TS 22.121
Source:	⌘	SA1 (Research In Motion)
Work item code:	⌘	TEI6
Date:	⌘	19/01/2005
Category:	⌘	**F**
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:

Ph2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*
Rel-7	*(Release 7)*

Reason for change:	⌘	TSG SA#26 agreed that TR 22.121 would not be carried into Rel-6. TS 22.127 currently makes reference to TS 22.121.
Summary of change:	⌘	References to TS 22.121 have been removed and the references for the Defintions have been changed to refer to TS 21.905.
Consequences if not approved:	⌘	22.127 will contain a reference to a non-existent specification

Clauses affected:	⌘	2.1, 3.1, 4, 5, 5.1			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			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.

1 Scope

This document specifies the stage 1 requirements for realisation of an Open Service Access (OSA).

OSA enables applications to make use of network functionality through an open standardised interface (the OSA API). OSA provides the glue between applications and network functionality. In this way applications implementing the services become independent from the underlying network technology.

Applications which make use of network functionality offered through the OSA interface are not standardised by 3GPP.

The network functionality offered through the OSA interface may or may not be standardised by 3GPP.

OSA is one toolkit, amongst others, that enables certain aspects of the requirements of the Virtual Home Environment (VHE) concept to be realised.

2 References

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

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2.1 Normative references

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

[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".

[7] 3GPP TS 22.141: "Presence Service Stage 1".

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

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

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 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 [3~~1~~]

Personal Service Environment: For the definition see [3~~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 [3~~1~~]

Virtual Home Environment: For the definition see [3~~1~~]

Watcher: For the definition see [7].

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
PS	Packet Switched
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].

4 General Description of OSA

In order to be able to implement future applications/end user services that are not yet known today, a highly flexible Framework for Services ~~[1]~~ is required. The Open Service Access (OSA) enables applications implementing the services to make use of network functionality. Network functionality offered to applications is defined in terms of a set of Service Capability Features (SCFs). These SCFs provide functionality of network capabilities which is accessible to applications through the standardised OSA interface upon which service developers can rely when designing new services (or enhancements/variants of already existing ones).

The aim of OSA is to provide a standardised, extensible and scalable interface that allows for inclusion of new functionality in the network with a minimum impact on the applications using the OSA interface.

5 The role of OSA within the VHE framework for services

The goal of standardisation in 3GPP with respect to services is to provide a framework within which services can be created based on standardised service capability features ~~(c.f. [1])~~. 3GPP services will generally not rely on the traditional detailed service engineering (evident for supplementary services in second-generation systems), but instead provides services using generic toolkits.

OSA is one of these toolkits, standardised within 3GPP, for the support of services within 3GPP system (see chapter 5.1).

Services can be implemented by applications using service capability features ~~[1]~~, which are accessible via the OSA interface towards these SCFs in the network.

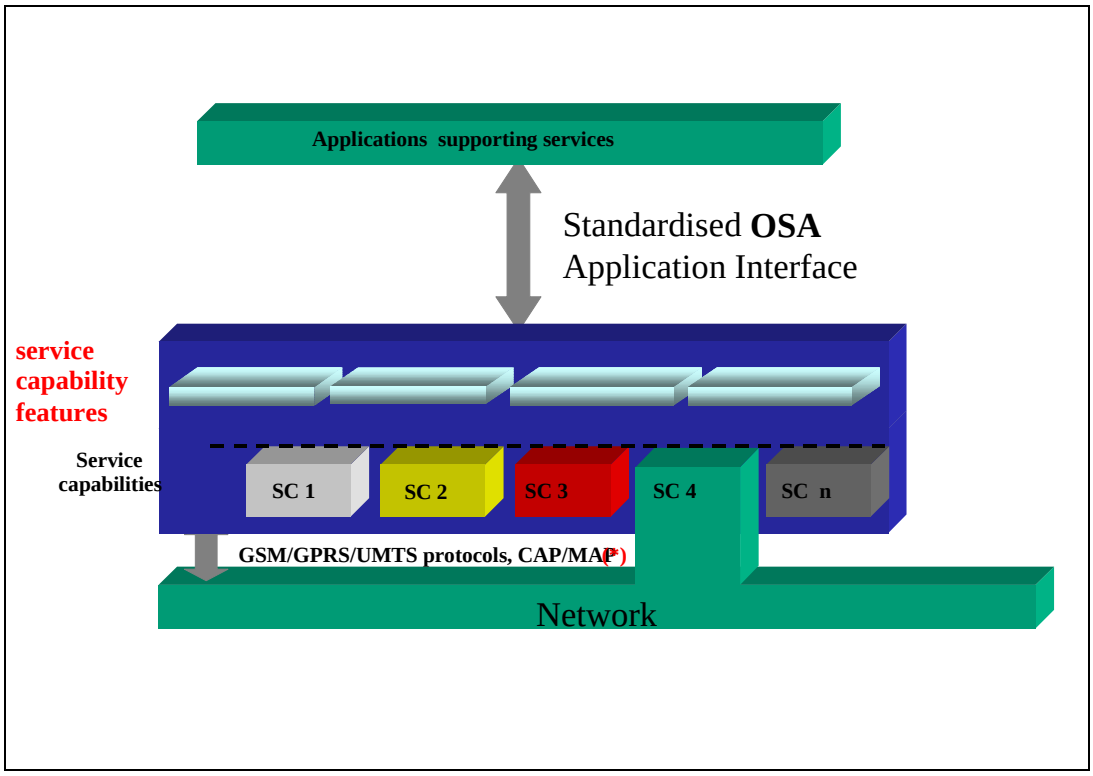

Figure 1: Applications access Service Capability Features via the standardised OSA Application Interface

5.1 Physical location of applications using the OSA interface

The physical location of applications accessing the OSA application programming interface is an implementation matter. This TS places no requirements on the physical location of the applications accessing the OSA application programming interface.

The only requirement on such applications accessing the OSA application programming interface is that they shall only do so via the framework for services ~~[1]~~.

The architectural support of the OSA application programming interface shall permit applications access to the OSA API independent of where the applications are physically executing.

TSG-SA WG1 #27 **S1-050218**
Cape Town, South Africa, 17th to 21st January 2005 **Agenda Item:**

CR-Form-v7.1

CHANGE REQUEST

⌘ **22.140** **CR** **047** ⌘**rev** **-** ⌘ Current version: **6.6.0** ⌘

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

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

Title:	⌘	Removal of Reference to TS 22.121
Source:	⌘	SA1 (Research In Motion)
Work item code:	⌘	TEI6
Date:	⌘	19/01/2005
Category:	⌘	**F**
Release:	⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
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D *(editorial modification)*
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Use one of the following releases:
Ph2 *(GSM Phase 2)*
R96 *(Release 1996)*
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R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*
Rel-7 *(Release 7)*

Reason for change:	⌘	TSG SA#26 agreed that TR 22.121 would not be carried into Rel-6. TS 22.140 currently makes reference to TS 22.121.
Summary of change:	⌘	Reference to TS 22.121 has been removed and a definition reference has been changed to refer to 21.905.
Consequences if not approved:	⌘	22.140 will contain a reference to a non-existent specification

Clauses affected:	⌘	2, 5.1

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

⌘

Other comments: ⌘

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.

1 Scope

This Technical Specification defines the stage one description of the non real-time Multimedia Messaging Service, MMS. Stage one is the set of requirements which shall be supported for the provision of non real-time multimedia messaging service, seen primarily from the subscriber's and service providers' points of view.

This TS includes information applicable to network operators, service providers, terminal and network manufacturers.

This TS contains the core requirements for the Multimedia Messaging Service, which are sufficient to provide a complete service.

This TS defines the requirements for MMS to be understood as a framework to enable non real-time transmissions for different types of media including such functionality as:

- multiple media elements per single message
- individual handling of message elements
- different delivery methods for each message element
- negotiate different terminal and network MM capabilities
- notification and acknowledgement of MM related events (e.g. delivery, deletion, ...)
- handling of undeliverable MM
- personalised MMS configuration
- flexible charging

The above list is not exhaustive.

Thus the MMS enables a unified application which integrates the composition, storage, access, and delivery of different kinds of media, e.g. text, voice, image or video in combination with additional mobile requirements.

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*.

[1] 3GPP TS 22.101: "Service Principles".

[2] ~~3GPP TR 22.121: "The Virtual home Environment".~~Void

[3] 3GPP TS 21.133: "3G Security; Security Threats and Requirements".

[4] ITU-T E.164 (1997): "The International Public Telecommunications Numbering Plan".

[5] IETF; STD 0011 (RFC 2822): "Internet Message Format", URL: http://www.ietf.org/rfc/rfc2822.txt.

[6] 3GPP TS 21.905: "Vocabulary".

[7] 3GPP TS 31.102 "Characteristics of the USIM Application".

[8] 3GPP TS 51.011 (Rel-4): "Specification of the Subscriber Identity Module – Mobile Equipment (SIM-ME) interface".

[9] 3GPP TS 22.242 "Digital Rights Management (DRM); Stage 1".

[10] 3GPP TS 22.240 "Stage 1 Service Requirement for the 3GPP Generic User Profile (GUP)" .

3 Definitions and abbreviations

3.1 Definitions

Recipient : the recipient is the entity to which a MM has been sent.

Sender: the sender is the entity that sent a MM.

User: the user is the MM sender or the MM recipient.

message element: a message element is a part of a MM consisting of only one media type.

multimedia message: a multimedia message is a message composed of one or more message elements.

multimedia message service: A multimedia message service allows transfer of multimedia messages between users without the requirement for the multimedia messages to be transferred in real-time.

media types: a media type refers to one form of presenting information to a user, e.g. voice or fax.

media formats: within one media type different media formats are applicable for the media presentation, e.g. a picture can be GIF or JPEG format.

network: for the purposes of supporting multimedia messaging, the term network shall be considered to include the mobile operator's network and any functionality which may exist outside the mobile operator's network (i.e.fixed, internet and multimedia technologies etc.), and the support provided by that functionality for multimedia messaging.

Operator Specific Service: network-based and operator administred function being able to perform additional, operator defined, MMS services based on MMS capabilities for address translation and charging.

Value Added Service Provider: provides services other than basic telecommunications service for which additional charges may be incurred.

Short code: A string of alphanumeric characters which addresses a specific service of a Value Added Service Provider.

3.2 Abbreviations

For the purposes of this document the following abbreviations apply:

MM	Multimedia Message
MMS	Multimedia Message Service
SMS	Short Message Service
VASP	Value Added Services Provider

4 High level Requirements

The following list gives the high level requirements of the MMS. These are requirements which are independent of the user’s perception of the service:

- **Forward compatible multimedia messaging**

  Multimedia messaging mechanisms shall provide the capability to support current and evolving multimedia messaging by re-using existing standards as far as possible and proposing extensions (as necessary) to existing standards (i.e. the multimedia messaging service shall support the evolution of multimedia messaging technologies).

- **Consistent messaging**

  Regardless of the message type / format, MMS shall be capable of supporting integration of all types of messaging (e.g. fax, SMS, Multimedia , voicemail, e-mail etc.) in a consistent manner.

- **Universal messaging access**

  Within the capabilities of networks and terminals, the user shall be able to experience consistent access to the MMS regardless of the access point.

  For example the user should be capable of accessing her multimedia messages through a number of different access points, which should include 3GPP systems, fixed networks, the Internet, etc.

- **Interoperability**

  The MMS shall support a minimum set of functionality and message formats to ensure interoperability (e.g. deletion of MM, identified standardised message notification, message media types and message content formats).

  The MMS shall provide a minimum set of supported formats to ensure full interoperability between different terminals and networks from the very beginning of service provisioning (e.g. JPEG for pictures, MP3 for audio, MPEG for motion pictures, etc.).

  The MMS shall support version management by indicating a version number in the MM for interoperability purpose.

5 General Requirements

Network operators have many differing requirements, and MMS shall be supported in the network in a manner which allows network operators to consider different configurations depending on their network and commercial requirements. Thus, an identified set of functionalities and formats shall be standardised to ensure interoperability across networks and terminals to support MMS.

However, some network operators may wish to design and configure networks in different ways, and the subsequent requirements are identified to allow flexibility in how the MMS functionality is supported. For example in some networks the network operators may wish to implement the MMS functionality within the core network, whereas other may wish to place the MMS functionality on the periphery of the core network (e.g. a centralised network model instead of a distributed architecture). Further, some network operators may wish to support a limited set of MMS functionality, while others may require extensive and elaborate MMS support according to their business models (e.g. basic MMS instead of advanced MMS). Interoperability shall always be maintained within this flexible architecture.

The following sub-clauses use the term "*The MMS shall be able to support a request for …*" and similar phrases to allow network operators to consider these different network models and business requirements, to permit flexible architectures and ensure MMS interoperability.

The following sub-clauses use the term *"This requirement shall be supported at the application layer in the terminal (and/or the network), and will not be further elaborated."* and similar phrases to identify those service requirements that shall be supported by MMS but do not require standardisation.

The criterion for identifying these types of requirements is as follows:

If the requirement corresponds to an interaction and/or command between the terminal and the network applications from the same Service Provider (e.g. between the recipient's terminal resident messaging application and the recipient's network resident application. The same applies for the sender), then this requirement shall be supported by MMS but does not require standardisation.

The following general requirements shall be supported.

5.1 Multimedia message management

- **Terminal-sensitive MM management**

  The MMS shall be able to support the capability for the terminal and network to take account of the capability of the user's terminal (e.g. deliver a MM / notification in a manner compatible with the terminals capability).

- **Terminal status-sensitive MM Management**

  The MMS shall be able to support the capability of the network to take account of the availability, changes of the state of availability of the terminal (e.g. store messages if the recipient is not available).

- **MMS Control by the operator**

  The MMS shall be able to support a request from the operator to enable/disable MM delivery and submission.

- **MMS Control by the user**

  The MMS shall be able to support a request from the user to enable/disable MM delivery and submission.

  This requirement shall be supported at the application layer in the terminal, and will not be further elaborated.

- **Storage of MMS parameters**

  The USIM shall be able to store the following types of MMS related data:

  i) a number of sets of issuer configuration information to allow access to MMS services.

  At least one of these sets of configuration information should be stored on the USIM by the issuer of the USIM.

  The first issuer configuration information set is denoted as the default configuration set.

  This configuration information shall only be configurable by the issuer of the USIM.

  ii) a number of sets of user configuration information to allow access to MMS services.

  If more than one set of configuration information is present, it shall be possible for the user to select which set is used. If the user has not selected any of the configuration information sets, then the default set in the active USIM is used.

  iii) MMS notifications

  iv) MMS user preferences

  A terminal using a USIM [7] or a SIM [8] with these MMS parameters, shall by default use them and the related preferred bearer, to access to the MMS services.

NOTE 1: Terminal support of SIM and USIM in general is specified in 3GPP TS 22.101[1].

- **Personalise multimedia messaging**

  The MMS shall be able to support a request by the user to manage the Service Preferences of his User Service Profile related to this MMS [6~~2~~](e.g. customise his MM environment within the capabilities of the terminal, network and MM application. This could be unconditional or conditional e.g. depending on roaming conditions or operator restrictions).

- **MM creation**

  The MMS shall be able to support the request to create a MM by the user or an application.

  This requirement shall be supported at the application layer in the terminal, and will not be further elaborated.

CR-Form-v7.1

CHANGE REQUEST

⌘ **22.141** **CR** **019** ⌘ **rev** **-** ⌘ Current version: **6.3.0** ⌘

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

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

Title:	⌘	Removal of Reference to TS 22.121
Source:	⌘	SA1 (Research In Motion)
Work item code:	⌘	TEI
Date:	⌘	19/01/2005
Category:	⌘	**F**
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:
Ph2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)
Rel-7 (Release 7)

Reason for change:	⌘	TSG SA#26 agreed that TR 22.121 would not be carried into Rel-6. TS 22.141 currently makes reference to TS 22.121.
Summary of change:	⌘	Removal of reference, removal of association with VHE and removal of requirement for preferences, settings and personalisation data which are not part of the presence information to be part of VHE User Profiles.
Consequences if not approved:	⌘	22.141 will contain a reference to a non-existent specification.

Clauses affected:	⌘	

		Y	N		
Other specs affected:	⌘		X	Other core specifications	⌘
			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.

1 Scope

This TS defines the stage one description for the presence service. Stage one is the set of requirements which shall be supported to enable the exploitation of the presence service, seen primarily from the users' and home environments' points of view.

This TS includes information applicable to the home environment, device and network manufacturers which are sufficient to provide complete support of the presence service.

Additional functionalities not documented in this TS are considered outside the scope of this TS. Such additional functionality may be on a network-wide basis, nation-wide basis or particular to a group of users. Such additional functionality shall not compromise conformance to the requirements of the presence service defined in this specification.

2 References

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[1] 3GPP TR 21.905: "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Vocabulary for 3GPP Specifications".

[2] ~~3GPP TS 22.121: "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects Service Aspects; The Virtual Home Environment".~~Void

[3] RFC 2778: "A Model for Presence and Instant Messaging"; http://www.ietf.org/rfc.html".

[4] RFC 2779 "Instant Messaging / Presence Protocol Requirement"; http://www.ietf.org/rfc.html

[5] "A Common Profile for Instant Messaging"; http://www.ietf.org/internet-drafts/draft-ietf-impp-cpim-05.txt

Note: This Internet document is still draft

2.1 Acknowledgement

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**** Next Change ****

5 High level requirements

5.1 Home Environment requirements

The presence service shall provide the ability for the home environment to manage the presence information of users' devices, services and service media, even when roaming. The home environment shall be able to be both the supplier of presence information (i.e. presentities), as well as the requesters of presence information (i.e. watchers). ~~The presence service supports the concept of VHE [2]. According to this concept t~~The presence service can be regarded as a Home Environment service or a Home Environment – Value Added Service Provider (HE-VASP) service.

The home environment requirements for the support of the presence service are defined in 5.3 General requirements, and the applicable requirements in 5.4 Management requirements and 5.5 Notification and acknowledgement requirements.

**** Next Change ****

5.4 Management requirements

The following management requirements shall be supported for the presence service:

a) Access control to the presence information

The presentity shall be able to manage the access to its presence information in compliance with the principal's privacy and access rules requirements detailed in 6.1 and 6.2.

The presentity shall have the ability to accept or reject a request for presence information on a per watcher basis, with the option:-

i) once only per watcher (e.g. set up access rules for known watcher, groups of watchers, anonymous watcher-subscriptions, etc.),

ii) for each presence information request (e.g. for watchers that are unknown or not set up in the current access rules).

It shall be possible for the presence service to make access control decisions on behalf of the presentity (e.g. when the presentity is out of contact) subject to the principal's privacy.

It shall be possible to inform the presentity of watcher-subscription requests

It shall be possible to report existing watcher-subscriptions to the presentity (on request or periodically).

It shall be possible for the presentity to request the watcher information.

b) Not used

c) Supplying data to the presence information

When supplying data it shall be possible to update only part of the presence information.

d) Requesting data from the presence information

It shall be possible to request the current value of presence information data on demand at any time (i.e. a fetcher) or on a periodic basis (i.e. a poller) subject to principal's privacy, or to be notified of subsequent changes in presence information data (except when such notification is prevented by access rules

It shall be possible for a watcher to define which parts of a presentity's presence information it receives, subject to the principal's privacy requirements.

It shall be possible for watcher to request presence information anonymously (i.e. the watcher's identifier will not be revealed to the presentity). This request can be accepted or rejected, depending on the principal's privacy.

A Watcher's interest to a presentity's presence information shall not be revealed to other watchers.

Watcher-subscription to a presentity's presence information

i) an entity shall be able to watcher-subscribe to a presentity's presence information at any time, i.e. to request notification from the presence service of (future) changes in any of the attributes or only in the attributes specified by the watcher (subject to the principal's privacy). Note, that by this watcher-subscription the entity becomes a subscribed-watcher.

ii) subscriptions are soft-stated. The subscribed-watcher shall be able to refresh a watcher-subscription to the presentity's presence information at any time. A watcher-subscription refreshes overwrite an existing watcher-subscription for the same presentity, subject to the presentity's access rules – the duration of a watcher-subscription starts from the time it is accepted.

iii) the subscribed-watcher shall be able to determine the status of his watcher-subscription to that presentity's presence information, at any time.

iv) the subscribed-watcher shall be able to cancel his watcher-subscription to a presentity's presence information at any time. Whenever a subscribed-watcher withdraws its watcher-subscription from a presentity's presence information, the subscribed-watcher shall no longer be receiving notifications regarding the presentity's presence information.

v) an unauthorised third party shall not be able to cancel a subscribed-watcher's watcher-subscription to a presentity's presence information

e) User availability and mobility

The presence service shall continue to be supported if the environment into which the user has moved supports presence service. The presence service shall take into account changes in the availability of users (e.g. the user is out of contact or not reachable, despite having activated his presence) or his mobility (e.g. wherever he may be in his home environment or in a visited network).

f) Not used

g) Access to presence service

i) it shall be possible for the presence service to accept presence information from a presentity at any time

ii) it shall be possible for the presence service to accept requests from, and provide presence information to, an authorised watcher at any time

~~h) Principals, which are 3GPP Subscribers~~

~~If a 3GPP subscriber is a principal to one or more Presentities and/or Watchers her preferences, settings and personalisation data (e.g. access rules) which are not part of the presence information shall be part of her VHE User Profiles [2].~~

CR-Form-v7.1

CHANGE REQUEST

⌘ **22.228** **CR** **027** ⌘ **rev** **-** ⌘ Current version: **6.7.0** ⌘

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

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

Title:	⌘	Removal of Reference to TS 22.121
Source:	⌘	SA1 (Research In Motion)
Work item code:	⌘	TEI6
Date:	⌘	19/01/2005
Category:	⌘	**F**
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:

Ph2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*
Rel-7	*(Release 7)*

Reason for change:	⌘	TSG SA#26 agreed that TR 22.121 would not be carried into Rel-6. TS 22.228 currently makes reference to TS 22.121.
Summary of change:	⌘	Removal of the reference and the removal of statement regarding the service capabilities of VHE.
Consequences if not approved:	⌘	22.228 will contain a reference to a non-existent specification

Clauses affected:	⌘	2.1, 6

	Y	N		
Other specs affected: ⌘		X	Other core specifications	⌘
		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.

1 Scope

This TS defines the service requirements from users' and operators' perspective for the support of IP multimedia applications.

IP multimedia applications are supported by IP multimedia sessions in the IM CN Subsystem. IP multimedia sessions use IP connectivity bearers (e.g. GPRS as a bearer). Examples of IP multimedia applications include speech communication, real time multimedia applications, shared online whiteboards etc.

This TS, in general, does not standardise usage of IP multimedia applications, but instead identifies the requirements to enable their support.

In order to align IP multimedia applications wherever possible with non-3GPP IP applications, the general approach is to adopt non-3GPP IP based solutions.

The existing legacy tele- and supplementary services shall not be re-standardised as IP multimedia applications, and multimedia equivalent applications may be created with toolkits.

2 References

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2.1 Normative references

[1] 3GPP TS 22.003: " CS Teleservices supported by a PLMN".

[2] Void

[3] Void

[4] Void

[5] 3GPP TS 22.101: "Service principles".

[6] Void

[7] ~~3GPP TR 22.121: "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; The Virtual Home Environment"~~Void

[8] Void

[9] RFC 3261: "SIP: Session Initiation Protocol"

[10] 3GPP TS 22.078: "; Customised Applications for Mobile network Enhanced Logic (CAMEL); Service definition – Stage 1"

[11] 3GPP TS 22.057: ”; Mobile Execution Environment (MexE); Service description, Stage 1”

[12] 3GPP TS 22.038: “3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; USIM/SIM Application Toolkit (USAT/SAT); Service description; Stage 1”

[13] 3GPP TS 22.127: “3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Stage 1 Service Requirement for the Open Service Access (OSA)

[14] 3GPP TR 21.905 : “Vocabulary for 3GPP specifications”

[15] RFC2806: “URLs for telephone calls”

[16] 3GPP TS 22.240: “3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Service Aspects; Stage 1 Service Requirement for the 3GPP Generic User Profile (GUP)”

**** Next Change ****

6 Standardised service capability approach

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

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

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

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

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

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

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

- the IM CN Subsystem user related data to be stored in a standardised format and to be managed and accessed using standardised mechanisms of the 3GPP Generic User Profile (GUP) [16].

- mechanisms which allow the network or the application to understand the limitations of the mobile and thereby take appropriate actions.

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

TSG-SA WG1 #27 **S1-050253**
Cape Town, South Africa, 17th to 21st January 2005 **Agenda Item:**

CR-Form-v7.1

CHANGE REQUEST

⌘ **22.228** **CR** **030** ⌘ **rev** **-** ⌘ Current version: **7.0.0** ⌘

*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:	⌘	Removal of Reference to TS 22.121
Source:	⌘	SA1 (Research In Motion)
Work item code:	⌘	TEI7
Date:	⌘	20/01/2005
Category:	⌘	**A**
Release:	⌘	Rel-7

Use one of the following categories:
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A *(corresponds to a correction in an earlier release)*
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Clauses affected:	⌘	2.1, 6

		Y	N		
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Other comments: ⌘

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