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Title:	**Status Report of SA_WG1 (Services)**
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Agenda Item:	**7.1.1**

TSG SA1 STATUS REPORT

1 General Overview of Progress

The TSG_SA_WG1#17 Plenary Meeting was held in Durango, USA from the 12th to 16th August 2002. It was chaired by Mr Kevin Holley (mmO2) and the secretary was Mr Michael Clayton from the MCC. The host was SBC.

2 External Liaisons

The following liaison statements have been sent from SA1 to external bodies.

Document Number	Title	To	Copy	Sent
S1-021497	LS to SA2 reply on handling of privacy checks for Network Induced Location Requests (S1-021400)	SA2, GSMA Serg LBS subgroup		31/07/2002
S1-021508	LS to GSMA SerG cc SA2 on LBS Scenarios	GSMA Serg LBS subgroup	SA2	31/07/2002
S1-021534	Response to LS on accuracy classes	GSMA Serg LBS subgroup	RAN2, RAN4, SA2	21/08/2002
S1-021717	Support of LCS enhanced user Privacy	CN5	SA2, SA3, LIF	21/08/2002
S1-021788	Removal of SMS and USSD as possible bearers from 22.140 v5.1.0	OMA IM Drafting Committee, 3GPP2 S1	OMA REQ, GSMA SerG	
S1-021848	LS to OMA on Multimodal	OMA	SA	
S1-021856	LS reply to SerG (1680)	T2, GSMA SerG, GSM NA	T3	21/08/2002

3 Change Requests for Rel-4 or earlier

3.1 Correction to periodic PLMN scan (22.011)

SA1 is presenting a R99 CR to correct the Periodic PLMN Scan in 22.011.

The current text explaining the interaction between the priority of an equivalent PLMN and the priority of a selected PLMN has been wrongly interpreted as meaning that as soon as the UE finds a PLMN in the equivalent PLMN with lower priority than the selected PLMN, a rescan is performed. The intention of the text is instead that the UE checks the prioritity of **ALL** the PLMNs in the equivalent PLMN list. It is then proposed to change the text to remove this potential ambiguity.

Also section title 3.2.2.5 is being renamed to "Timer for return to higher priority PLMN" as the new title is a generalisation of the existing one and reflects better the content of the section.

The CR is presented in document SP-020547 together with the appropriate CRs for Rel-4 and Rel-5.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020547	22.011	047		R99	F	CR to 22.011 Rel 99 - correction to periodic PLMN scan	3.7.0	3.8.0	S1-021824
SP-17	SP-020547	22.011	048		Rel-4	A	CR to 22.011 Rel 4 - correction to periodic PLMN scan	4.7.0	4.8.0	S1-021825
SP-17	SP-020547	22.011	049		Rel-5	A	CR to 22.011 Rel 5 - correction to periodic PLMN scan	5.0.0	5.1.0	S1-021826

3.2 Forbidden LAs for regional provision of service (22.105)

After some investigation, SA1 identified that the Stage 2 and stage 3 specifications do not

incorporate functionality for Forbidden Location Area for regional provision of service. It is not clear from current version of TS 22.105 that this feature does not exist in UTRAN.

Therefore, SA1 is presenting a CR to Rel-4 to add some text to indicate that Forbidden Location Areas for regional provision of service will not be available in UTRAN. The CR to do this for Rel-4 is provided with a mirror CR to Rel-5 in document SP-020548.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020548	22.105	037		Rel-4	F	CR on 22.105 Rel4, Forbidden LAs for regional provision of service	4.3.0	4.4.0	S1-021631
SP-17	SP-020548	22.105	038		Rel-5	A	CR on 22.105 Rel5, Forbidden LAs for regional provision of service	5.2.0	5.3.0	S1-021634

4 Change Requests for Rel-5

The following CRs are for Release 5.

4.1 Definitions and Abbreviations (21.905)

At the last meeting of SA1, the group received two liaison statements from GERAN with input to 21.905 on definitions and abbreviations. These have been ratified by SA and are presented in document SP-020549 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020549	21.905	039		Rel-5	F	Addition of GERAN definitions and abbreviations	5.3.0	5.4.0	S1-021677
SP-17	SP-020549	21.905	040		Rel-5	F	Addition of missing GSM/GPRS abbreviations	5.3.0	5.4.0	S1-021676

4.2 CRs to CAMEL (22.078)

There are two CRs for CAMEL in 22.078.

The first is based on a liaison statement from CN2 regarding the starting conditions for call scenarios. The scenarios for the set-up of a CAMEL controlled call are not all outlined clearly in 22.078, CN2 found 3 scenarios, each having different starting conditions. All 3 sceanrios need to be specified clearly in stage one of the specification.

The second CR concerns the handling of partial implementations of CAMEL phase 4. The current description in subclauses 16.6 and 16.7 seems to allow partial implementations of CAMEL4, at least in the roaming case. Although no operator should be able to force the partner to implement certain features, this still remains as an excuse not to implement full features of CAMEL4 forever. Operators shall be able to indicate clearly to the manufacturers which requirement they need for their own network. However, there may be the case where an operator is not willing to offer the capability of the network to a roaming subscriber for various reasons.

Additionally, even if the standard does not specify the mechanism, partial implementations of CAMEL4 might exist in the real world. These partial implementations cause problems in the roaming case. We believe there should be a mechanism in the standard that helps to solve these problems. However, the standard shall NOT define subsets which encourage partial implementations.

The CRs are presented in document SP-020550 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020550	22.078	148		Rel-5	F	Clarification on re-connecting held parties in a CPH configuration	5.7.0	5.8.0	S1-021675
SP-17	SP-020550	22.078	149		Rel-5	C	Handling of partial implementations of CAMEL phase 4	5.7.0	5.8.0	S1-021538

4.3   ISIM requirements (22.101)

During the IMS SWG session it was identified that the common understanding that multiple ISIM can reside on a UICC is not in the standard. The current version of 22.101, however does not describe this, nor how the UE handles it. Minor changes to other areas same chapter.

Therefore, a new section is being added to describe this, along with some editorial changes to the same section.

The CRs for Rel-5 and corresponding Rel-6 are presented in document SP-02551 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020551	22.101	101		Rel-5	F	Clarifications on ISIM requirements Rel 5	5.6.0	5.7.0	S1-021836
SP-17	SP-020551	22.101	102		Rel-6	A	Clarifications on ISIM requirements Rel 5	6.0.0	6.1.0	S1-021837

4.4   Various CRs to 22.101 (22.101)

Two other CRs are provided to 22.101 rel-5.

CR 22.101-098r1 contains a clarification of IMS service delivery. Currently the access to IM Subsytem requires a subscription to PS domain services. The current wording of stage 1 for IMS doesn't reflect explicitlythe need of a PS subscription.

CR 22.101-100 contains some additional download functionality to emergency call procedures. The current stage one requirement was recently changed in order to align it with the stage three specification of a particular mechanism. That mechanism does not work correctly, particularly when the GGSN is in the HPLMN.

The CR to do this is provided in document SP-020552

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020552	22.101	098	1	Rel-5	F	Clarification of IMS service delivery (for rel 5)	5.6.0	5.7.0	S1-021780
SP-17	SP-020552	22.101	100	1	Rel-5	F	Additional download functionality to emergency call procedures	5.6.0	5.7.0	S1-021776

4.5   SMS and USSD as possible bearers for MMS (22.140)

In 22.140, both SMS and USSD are indicated as possible bearers for MMS delivery, but which are actually not supported for this task. After having consulted with T2 it was then

agreed to remove them from the paragraph on Bearer Selection in the MMS stage 1 technical specification

CR 22.140-017 to do this is presented in document SP-020553 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020553	22.140	017		Rel-5	F	Removal of SMS and USSD as possible bearers from 22.140 v5.2.0	5.2.0	5.3.0	S1-021786

5 Change Requests for Rel-6

The following sections contain CRs to release 6.

5.1 Definitions and abbreviations for Rel-6 (21.905)

With work progressing in SA1 on Release 6, SA1 considered that the time is ripe for a Rel-6 version of 21.905 to be created. Two CRs to do this are presented in document SP-02555.

The first relates to the new TR for network sharing. New definitions regarding network sharing concept have been clarified and need to be included in the vocabulary TR.21 905.

The second relates to the enhancement of the definition of a "Subscriber". It would appear that SA5 have been working on the requirements for Subscription Management in TS 32.140. During this work, SA5 has realised that the definition of subscriber defined in 21.905 is not appropriate for SA5's purposes.

The enhancement of the definition of a "subscriber" proposed here is in line with work in SA2, who have agreed a CR on consistent use of subscriber / user for 23.228 (IMS stage 2) based on the proposed definition.

Also in SA1 the work on the 3GPP Generic User Profile (GUP) relies very much on a meaningful defininition of a "subcriber" and it's relationship with - and distinction from a "user".

Both the CRs are presented in document SP-020555 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020555	21.905	041		Rel-6	B	CR to 21.905 definitions from TR 22.951	5.4.0	6.0.0	S1-021762
SP-17	SP-020555	21.905	042		Rel-6	F	Enhancement of the definition of the 'Subscriber'	5.4.0	6.0.0	S1-021715

5.2 CRs to Location Services (22.071)

A number of changes have been received for location services in 22.071 for release 6.

The first is an administrative CR relating to the file size of 22.071. The file size of '22071-600.doc' is 12.1 Mbyte since invisible archived document versions from 1999 exist and should be removed from the file. Whilst the MCC is aware of this issue, the CR serves as a reminder to undo the setting which allows for old versions to be kept with the current version.

CR 22.071-043 contains a change to provide for annonymity in LCS. It is seen important from user privacy point of view to support anonymous requestor and anonymous target mobile in location services. Section 6.4.6 on Requestor requirements should be its own section 6.5.

CR 22.071-044 contains some improvements to the codeword concept for LCS. The codeword is used to target a particular UE user.

CR 22.071-045 contains a change to the privacy settings for LCS. According to TS 22.071 Rel'5, privacy settings in the privacy exception list can be made per LCS client. In addition service type settings can be used if the user may wish to differentiate between privacy requirements for services within one LCS Client. Though, LCS clients may have several services of the same service type. The services of the same service type within one LCS client can therefore not be differentiated using service type settings. There is therefore a need for privacy settings per service (as a compliment to the privacy functions defined in 3GPP Rel'5, e.g. Service Type, Requestor and Codeword.)

CR 22.071-046 contains a change to better recognize regulatory location accuracy requirements e.g. for US implementations. Whilst this is being done for the US, the change is generic and equally applies to other regions once the regulatory requirements are defined.

These CRs are presented for approval in SP-02556.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020556	22.071	042		Rel-6	D	CR to 22.071: Too big file size	6.0.0	6.1.0	S1-021662
SP-17	SP-020556	22.071	043		Rel-6	B	CR to 22.071 on LCS Anonymous	6.0.0	6.1.0	S1-021794
SP-17	SP-020556	22.071	044		Rel-6	B	CR to 22.071 on LCS Codeword	6.0.0	6.1.0	S1-021490
SP-17	SP-020556	22.071	045		Rel-6	B	LCS extended user privacy	6.0.0	6.1.0	S1-021491
SP-17	SP-020556	22.071	046		Rel-6	C	Update to 22.071 for regional specific	6.0.0	6.1.0	S1-021799

5.3   CRs to Service principles (22.101)

As the mainstay of the SA1 TS, 22.101 on Service principles always attracts changes at the start of a new release. Release 6 is no different. The following CRs are to 22.101 Rel-6.

CR 22.101-097r1 contains changes related to the Rel-6 ISIM requirements. The Release 5 requirement states: "In Rel5 the ISIM application shall require the presence of a USIM application on the same UICC". For Release 6 it is proposed to remove the restriction of having an ISIM in a UICC that does not contain a USIM.

CR 22.101-103 contains some changes to clarify the support of SIMs from Release 4 and earlier within release 6.

CR 22.101-104 contains a change to remove implementation detail which should not be in a stage 1 specification (Version 6.0.0). It was considered better to have the implementation detail in T2 specifications. Also the feature should apply to MMS

CR 22.101-105 contains some of SA1 requirements which have not been fulfilled in Rel 5 time frame but still need to be maintained for Rel-6.

CR 22.101-106 contains changes on Independent and linked subscriptions. The current

specification does not clearly specify operator requirements on subscriptions and the change makes it clear that subscriptions can be offered independently as well as linked to each other.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020557	22.101	097	1	Rel-6	B	Release 6 ISIM requirement	6.0.0	6.1.0	S1-021811
SP-17	SP-020557	22.101	103		Rel-6	F	Clarification of SIM support in Rel-6	6.0.0	6.1.0	S1-021849
SP-17	SP-020557	22.101	104		Rel-6	B	CR to 22.101 Removal of implementation details for directory number in SMS and other services	6.0.0	6.1.0	S1-021755
SP-17	SP-020557	22.101	105		Rel-6	F	CR to 22.101 Rel-6 Clean up of IMS Rel 6 to re-instate requirements	6.0.0	6.1.0	S1-021775
SP-17	SP-020557	22.101	106		Rel-6	B	Rel 6 22.101 CR on Independent and linked subscriptions	6.0.0	6.1.0	S1-021838

5.4   OSA (22.127)

A number of changes have been received in SA1 related to OSA.

CR 22.127-050 reintroduces User Data management and User data security management postponed from Rel-5.

CR 22.127-051 introduces a new network function (the Multimedia Messaging function). The MMS Release 5 specification includes an interface between MMS network services and value-added application servers. This CR adds a new OSA network function to handle multi-media messaging using OSA interfaces.

CR 22.127-052 reflects the enhancements of User Privacy in LCS. It shall be possible to receive Requestor identity, service identity and codeword when provided by an OSA application. These information are added as optional parameters of the User location Function. These information shall further be provided to the GMLC.

CR 22.127-053 reintroduces other features that were removed from R5 as they couldn't be completed by CN5 in the Release 5 timeframe.

CR 22.127-054 This change requests proposes functional enhancements to the OSA Policy Management capabilities. The proposed extensions are :

-    Creation/Modification of polices based on more 'complex' parameters such as lists, meta variables, records …etc as opposed simpler parameters such as integers. This offers the service proviers and network operator a greater applicability
-    Allow OSA client applications to modify policy rules. Such an appraoch allows the reuse of predefined rules with minor customisation. From a service provide perspective benefits are that rule creation becomes easier since modification of a rule is generally easier than creation of a new rule. From an operator perspective, the benefits are that this results in lower error checking overhead, since re-used predefined rules with modifications are likely to be less error prone.
-    Extension the current "grammar" for the expression of Policy Rules. The current grammar allows only very simplistic policy rules to be expressed and extensions allow for less vendor specific expressions as well as introducing new operations and allowing the definition of user specific functions.

CR 22.127-055 proposes a functional enhancement to the OSA Policy Management capabilities. The proposed extensions is to allow Policy Management Clients to request

the evaluation of policies (rules).

CR 22.127-056 reintroduces the requirements to support R6 Presence Service. These requirements were removed from OSA R5 following SA#15 decision to delete the Presence Service WI from Release 5.

CR 22.127-057 introduces a Generic Network Interface Function that enables an application to communicate with non-framework service capability features by using communication means. The Generic Network Interface Function enables applications to dynamically negotiate communication means with the SCF. The benefit of this approach is to grant access to new service capability features on the OSA interface without additional OSA specification effort.

The collection of CRs to 22.127 are presented in document SP-020559 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020559	22.127	050		Rel-6	B	Reintroduction of User Data management and User data security management postponed from R5	6.0.0	6.1.0	S1-021830
SP-17	SP-020559	22.127	051		Rel-6	B	Network function for Multimedia Messaging	6.0.0	6.1.0	S1-021854
SP-17	SP-020559	22.127	052		Rel-6	C	OSA support of enhanced user privacy	6.0.0	6.1.0	S1-021716
SP-17	SP-020559	22.127	053		Rel-6	B	Reintroduction of features postponed in Rel-5	6.0.0	6.1.0	S1-021720
SP-17	SP-020559	22.127	054		Rel-6	C	CR 22.127 extensions to policy management complex parameters	6.0.0	6.1.0	S1-021721
SP-17	SP-020559	22.127	055		Rel-6	C	CR 22.127 extensions to policy management third party applications	6.0.0	6.1.0	S1-021722
SP-17	SP-020559	22.127	056		Rel-6	B	CR 22.127 - Reintroduction of Presence Service	6.0.0	6.1.0	S1-021596
SP-17	SP-020559	22.127	057		Rel-6	B	CR on OSA support of Generic Network Interface function	6.0.0	6.1.0	S1-021718

5.5   CRs to Presence Service (22.141)

Two CRs are provided for the now Release 6 presence service.

There are some issues in the TS that are still open and CR 22.141-015 is proposing a way to close them. It is proposed not to include a definition of status insofar as this term is used in different contexts throughout the TS (IETF status, subscriber status, and network status). The meaning of "status" can be understood wherever it is used. Also, unclear text is reworded, and formatting is changed in section 4.2.

The second CR results from a review of 22.141 by SA3. It was commented that some redundancies could be avoided on security and privacy requirements and that some requirements were unclear.

The CRs are presented for approval in document SP-020560.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020560	22.141	015		Rel-6	F	Presence TS - Cleaning of requirements	6.0.0	6.1.0	S1-021592
SP-17	SP-020560	22.141	016		Rel-6	F	Presence TS - Tidy up of security requirements	6.0.0	6.1.0	S1-021781

5.6   MBMS (22.146)

As usual, MBMS has attracted a number of CRs. These are:

CR 22.146-033 contains a CR on Simultaneous Services in MBMS. Currently the stage 1 specification only discusses the support of paging whilst an MBMS session is ongoing or possibly other MBMS sessions. An interesting service capability from a user point ov view would be to discuss an ongoing MBMS transmission with a friend, or to be downloading data in the background. It is appreciated that this may be restricted to high end terminals and not all terminals will support this feature.but the network should not restrict such a service.

CR 22.146-034 contains a change on Location Specific Content and QoS. Current specification calls for enabling location specific content for MBMS. Further, predefined location-specific QoS is required as well. Recent discussions at the recently held MBMS workshop indicated that the present description of these requirements is slightly confusing in regards to the function of a multicast/broadcast area and its logical relation to a multicast/broadcast service. It was pointed out that preferably a single area should be associated with a single service and that QoS degradation or location specific content would be better handled separately on a different level.

QoS degradation is also currently described as a statically configured area specific configuration. It is expected that QoS degradation could potentially be more dynamic to allow local QoS variations. It should be noted that present SA2 work has identified possible solutions to handle such requirements.

Further, 5.1.1 and 5.2.2 describe obviously a discrete number of areas in which MBMS services may be offered. This prevents the configuration of service areas individually per MBMS service. Each service has to be provided within the somehow provided broadcast/multicast areas. This is an unnecessary service limitation.

CR 22.146-035 contains Proposed CR on addition of QoS information. The current stage 1 for MBMS mentions little about the types of applications and supported data rates expected of MBMS applications. This CR aims to help progress this open issue and proposes that the stage 1 requirements be updated with expected bit rates. It is assumed that MBMS codecs will have similar capabilities to those required to support PSS.

CR 22.146-036 contains editorial changes.

CR 22.146-037 contains changes related to MBMS Availability. Currently, the TS refers to UE modes in which MBMS is to be available. It is not clear why a stage-1 requirements specification deals with specifics of UE states for MBMS reception. A more general requirement regarding service availability to all PLMN registered/attached users exists and seems to capture the required functionality as far as service requirements are concerned

CR 22.146-038 contains changes on Multicast service discovery. Section 4.3 on MBMS Service Discovery is not clear on what mechanisms the network could make available to the user to discover MBMS service. The term Service Announcements suggests that the network informs MBMS service availability to the user. This may be sufficient for broadcast, but may not be sufficient for multicast. The network should not preclude user interrogation to encourage subscription to multicast services available at his current location or another location. Therefore from a user perspective, information about MBMS services should be available by both push- and pull-type mechanisms.

CR 22.146-039 contains changes on MBMS Charging. Present SA2 output includes some charging requirements and issues that are not specifically mentioned in the stage-I. It is considered worthwhile to bring these requirements into stage-1 and to update TS accordingly.

The CRs are presented in document SP-020561 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020561	22.146	033		Rel-6	B	Support of simultaneous services in MBMS	6.0.0	6.1.0	S1-021473
SP-17	SP-020561	22.146	034		Rel-6	F	Proposal for Amalgamation of 1279, 1334, 1291	6.0.0	6.1.0	S1-021472
SP-17	SP-020561	22.146	035		Rel-6	B	Proposed CR to 22.146: addition of QoS information	6.0.0	6.1.0	S1-021471
SP-17	SP-020561	22.146	036		Rel-6	F	MBMS Editorial CR	6.0.0	6.1.0	S1-021469
SP-17	SP-020561	22.146	037		Rel-6	F	Proposed CR 22.146 on MBMS Availability	6.0.0	6.1.0	S1-021483
SP-17	SP-020561	22.146	038		Rel-6	C	Proposed CR to 22.146: Multicast service discovery	6.0.0	6.1.0	S1-021481
SP-17	SP-020561	22.146	039		Rel-6	B	CR to 22.146 on MBMS Charging	6.0.0	6.1.0	S1-021475

5.7   IMS Service (22.228)

Two CRs have been agreed by SA1 for 22.228. These are:

CR 22.228-015r1 contains a CR relating to the ISIM. The Release 5 requirement states: "In Rel5 the ISIM application shall require the presence of a USIM application on the same UICC". For Release 6 it is proposed to remove the restriction of having an ISIM in a UICC that does not contain a USIM. This CR goes together with CR 22.101-97r1 in document SP-02557.

CR 22.228-017 contains some clarifications on interworking for release 6.

The CRs are presented in document SP-020562 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020562	22.228	015	1	Rel-6	B	Release 6 ISIM requirement	6.0.0	6.1.0	S1-021812
SP-17	SP-020562	22.228	017		Rel-6	B	CR to 22.228 Rel 6 on IMS interworking	6.0.0	6.1.0	S1-021771

5.8   PSS server file format (22.233)

There are two CRs to 22.233 release 6.

CR 22.233-001 contains a Requirement for efficient use of transport resources for PS Streaming. PS Streaming is quite challenging with respect to usage of transport resources, especially over the air. Therefore a requirement to be able to support mechanisms (e.g. compression) that allow to reduce usage of transport resources is required.

Such mechanisms should have no or minimal impacts on the core network and access networks e.g. an end to end mechanism.

The second CR, 002, is regarding requirements on Server file format. This is an important part of PSS and need to be considered in the continuous PSS work.

The CRs are presented in document SP-020563 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020563	22.233	001		Rel-6	B	Requirement for efficient use of transport resources for PS Streaming	5.0.0	6.0.0	S1-021791
SP-17	SP-020563	22.233	002		Rel-6	B	CR, PSS server file format	5.0.0	6.0.0	S1-021627

5.9   Digital Rights Management (22.242)

There is one CR also to 22.242 for DRM. Currently, Section 8 (Security) of TS 22.242 contains a requirement that "DRM shall be based on proven security components". This requirement is currently identified as FFS. It is not clear what it relates to, and how this general requirement could be translated into any architectural requirements. Since Stage 1 requirements are used as the basis for determining a Stage 2 architecture, any interpretation of this service requirement that goes beyond the translation of it into architectural requirements is beyond the scope of a 3GPP Stage 1 specification. Therefore the requirement – as it currently stands – is not regarded as useful.

This CR was agreed by SA1, but with one objection from Orange.

It is provided in document SP-020564 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-17	SP-020564	22.242	001		Rel-6	F	Clean-up of TS 22.242	6.0.0	6.1.0	S1-021609

6   New TSs/TRs

SA1 has a number of TSs and TR to present for information and approval.

6.1   TR 22.951 version 1.0.0 on Network Sharing

Document SP-020565 contains version 1.0.0 of TR 22.951 on Network Sharing.

In the current dynamic market place, as a result of partnerships, acquisitions, creative agreements among operators and so on, the need for tools that enable various degrees of network sharing is becoming more and more important. When GSM and then UMTS were specified, the possibility of sharing part or all of the network by two or more separated commercial entities was not considered and as a result the standards lack some functionalities that enable the realisation of such commercial agreements.

GSM was designed under the principle "one operator, one radio access network". The GSM network has some possibilities of infrastructure sharing, but it does not support true radio access network sharing. The initial design of 3GPP system has followed the same principle.

This technical report is aimed to capture the service and user requirements that must be fulfilled by the 3GPP system in order to enable network sharing. Network sharing includes various scenarios e.g. common radio access network connected to multiple core networks or multiple radio access networks sharing one core network.

The Outstanding Issues are:

- Treatment of international roaming subscriber in sharing network
- Conclusion needs to be drafted
- Requirements on name display when manual network selection is used is for further study
- UE capabilities and requirements will be for further study
- Charging and security requirements to be completed

It is presented for Information in document SP-020565.

6.2   IMS group management capability

Work has progressed on IMS group management capability in TS 22.250 and it is now at Version 1.0.0. The Technical Specification defines the requirements for the support of IMS group management capability. IMS group management capability provides a possibility to manage network based groups. IMS group management allows defining different roles and rights to the members of a group, defining group level information and properties, etc. The IMS group management is a generic capability that can be utilised together with several different services.

The present document covers number of requirements that are essential for group management. Out of those requirements search functionality requires clarification: what is the scope of the search, who can perform it, etc. Another open items are: applying default rights for the new members of the group, possibility to hand over administrator rights and clarification of the "authorised users and applications".

Remaining issues are expected to be completed by SA1#18.

It is presented for information in document SP-020566

6.3   IMS Messaging

The Technical Report 22.940 identifies the issues and needs surrounding messaging solutions related to the 3GPP IP Multimedia Subsystem (IMS). The report identifies essential messaging requirements, taking into consideration use cases that illustrate the needs of both service providers and users. The report also highlights and contrasts the messaging capabilities of the 3GPP Multimedia Messaging Service and how these messaging capabilities might relate to or interact with the messaging services running in IMS.

The Outstanding Issues are:

- the role of the IMS group management for some operations need to be clarified,
- address translation/mapping and
- availability of history information in context of session based messaging.

Remaining issues are expected to be completed by SA1#18.

It is presented for information in document SP-020567.

6.4   Generic User Profile (GUP)

Document SP-020568 contains version 1.0.0 of 22.240. The TS defines the stage one description to the 3GPP Generic User Profile (GUP). It specifies requirements to the 3GPP Generic User Profile, seen primarily from the user, home environment, serving

network and value added service provider's points of view.

Whilst there are no outstanding issues, as such, there are several references in the specification to areas relating to security where SA1 feels it would be beneficial to have some analysis performed in SA3.

It is presented for information in document SP-020568.

6.5 **Wireless Local Area Networks (WLANs)**

TR 22.934 contains a feasibility study of interworking between 3GPP systems and Wireless Local Area Networks (WLANs). This document identifies and describes:

- Scenarios for 3GPP - WLAN Interworking
- 3GPP – WLAN interworking service requirements
- Guidelines for standardisation of 3GPP – WLAN interworking

The only outstanding Issues are Network access selection, use cases for access to 3GPP services from WLAN, however this will be part of the specification work.

It is presented for approval in document SP-020569.

6.6 **Speech Enabled Services**

The new TR 22.977 on Feasibility study for speech enabled services (Release 6) is being made available for approval. The TR provides a feasibility study of Speech Enabled Services in 3GPP systems. It introduces and analyzes different types of services and their associated deployment options

Speech-only services
- client-side-only
- with server-side engines:
    - on Packet Switched networks (Speech recognition Framework)
    - On Circuit Switched networks
Multimodal and Multi-device
- Numerous deployment configurations.

A brief overview of the speech-enabled services is presented in Chapter 4. The different ways of enabling speech recognition for the speech enabled services are described in chapter 5. Section 6 discusses multimodal services and options to enable multimodal and multi-device services. The scope of the report, references, definitions and abbreviations are detailed in the first few chapters.

SA1 does not percieve any contentious or outstanding issues on this.

It is presented in document SP-020570 for approval.

6.7 **Push Service**

Document SP-020571 contains the latest version of the PUSH TS. Since the presentation for information, there has been a refinement of the basic approach for Push. Other than this there have been no substantive changes. The document maturity has increased; there is no disagreement over the basic goals and application of the Push service. The last revision eliminated overlap between two subsections, retaining the unique requirements in

both sections.

There are no outstanding issues that need to be resolved.

It is presented in document SP-020571 for approval

6.8   Speech Recognition Framework for Automated Voice Services

The last TS for approval is TS 22.243 on Speech Recognition Framework (SRF) for Automated Voice Services. The Stage 1 is the set of requirements for data seen primarily from the user's and service providers' points of view.

The Technical Specification includes information applicable to network operators, service providers, terminal and network manufacturers. It also contains the core requirements for the Speech Recognition Framework for automated voice services.

The scope of this Stage 1 is to identify the requirements for 3G networks to support the deployments of a speech recognition framework - based automated voice services and therefore to introduce a 3GPP speech recognition framework as part of speech-enabled services. The Speech Recognition Framework for automated voice services is an optional feature in a 3GPP system.

There are no outstanding issues that need to be resolved.

It is presented in document SP-020572 for approval.

7   WIs from SA1

There are a number of WIDs being put forward by SA1 for approval; some are updates and the others are new.

7.1   Updated WIs from SA1

7.1.1   Updated IMS group management WI

An update of the IMS Group Management WI is provided for approval in SP-020573. This is mainly an update of workplan, although it has been identified that a TS is required and the number allocated for this is 22.250.

The update includes a more detailed estimate how IMS group management work proceeds in TSG-S1. It should be noted that TSG-SA and TSG-S2 related items only illustrate potential outcome of other groups if TSG-S1 work is completed as planned.

7.1.2   Updated WLAN Interworking WID

The WI WLAN has also been updated and is presented for approval in document SP-020574. Therein is contained some editorial changes and an update to the workplan.

7.1.3   Updated IMS WID

The update of the IMS WI relates to the include Access Independence and Interoperability with Other IMS systems. No other changes are made. It is presented in document SP-020575 for approval.

7.1.4   Updated LCS enhancements

At the last meeting of SA1, input was received regarding Galileo. Currently, the LCS standards developed by 3GPP standardize an assisted GPS solution for satellite positioning. This standard supports the current GPS system that provides a single frequency signal that is very vulnerable to interference and shadowing. As a consequence, the performance of A-GPS for in-door or urban environment applications is not optimum.

A new global 30-satellite constellation is being developed by the European Union and the European Space Agency called GALILEO. It will be a civil-controlled constellation offering, free of charge, several signals with good robustness to interference capability. Additionally, several system features have been especially designed to provide better availability performance in urban and in-door environment. These capabilities are stronger signal power, improved satellite geometry, use of better ranging codes and introduction of pilot tones.

It is quite important that relevant LCS standards allow for the use of GALILEO. Additionally, the combined use of current and modernized GPS and GALILEO should be considered.

It should be noted that a work item for the actual work on Galileo is being put forward by SA2, and this updated is intended to complement that.

The updated WI is provided in document SP-020576 for approval.

7.1.5   Update of GUP WID

Despite its checkered history, work on GUP is still ongoing. SA1 has made two changes to the WI; one to change the workplan date for 22.240 (see section 6.4 above) and the other is a change of rapporteurship for the stage1. It is presented in document SP-020577 for approval.

7.2   New WIs from SA1

7.2.1   Proposed WID on Feature Interactions Requirements

A variety of different services, service enablers, and capabilities are being standardized by 3GPP. There are potential feature interactions among these various services, service enablers, and capabilities. However, such feature interactions are usually not sufficiently documented in most current 3GPP Technical Specifications.

When the SA1 Stage 1 Technical Specifications are developed and approved, the Stage 2 and Stage 3 developments are distributed among various Working Groups, Sub-Working Groups, and Ad Hoc Groups within 3GPP. Many times, these other 3GPP groups are only focused on the specific SA1 Technical Specification that is directly related to their specific work item. Consequently, these groups are not always aware of the potential interactions with other features, which can result in incomplete, incorrect, or conflicting specifications.

The aim of this work item is to identify the required feature interactions between the services, service enablers, and capabilities defined in the SA1 Stage 1 Technical Specifications. The resulting information will be the basis for new WIDs or enhancements to existing WIDs to specify the detailed feature interactions for the impacted services, service capabilities, and features. Another result should be to determine whether to specify the Feature Interactions in a separate Stage 1 TS, or to distribute the information

in the individual Stage 1 TSs. The definition of the architecture and protocols required to satisfy such feature interactions is beyond the scope of SA1.

The WI is presented in SP-020578 for approval.

7.2.2 Proposed WID on a Generalised Privacy Capability

Several services within the 3GPP system have or are in the process of addressing the privacy of user information. E.g. Presence, LCS, GUP. These are either referred to as "Privacy requirements" or as "access rules". Suggestions have been made that it would be useful if these "access rules" are handled in a common manner, rather than being implemented in multiple ways for each service.

The proposed WID is for a study on Privacy requirements to provide a generalised Privacy Capability. The intention is that the study will:

- look at the existing requirements
- identify the common requirements
- identify any new requirements for a common Privacy capability
- determine if a new specification and/or CRs are required to include the requirements for a generalised Privacy Capability within the stage 1 specification set.

It is presented in document SP-020579 for approval.

8 Other Issues

8.1 QoS within the ITU-R WP8F

At the last meeting of SA1, a liaison statement on the proposed Revision of Rec. ITU-R M.1079 on QoS currently under discussion within ITU-R WP8F was received. At the last meeting of ITU-R WP 8F input were received toward the Revision of Recommendation ITU-R M.1079 ('Performance and quality of service requirements for IMT-2000'). As a result, a preliminary Draft Revision of the Recommendation was developed. In addition, it was decided to carry forward other input material to the next meeting of ITU-R WP 8F (Geneva, 25th September - 2nd October 2002).

It would appear that the definition of the services between the two specs, TS22.105 and TS23.107, are misaligned. There was some concern in SA1 that caution is required since the two specifications are going to the same ITU committee.

This was brought up in SA plenary (#16) and SA2 was tasked to deal with this. It was understood that a there was a lengthy discussion in the last SA2 but with no resolution. However, CRs are expected and in input was promised from BT to the next SA2. SA1 has noted the liaison statement, but it was thought prudent to bring this to the attention of SA.

9 Meetings of SA1

9.1 Meetings since last SA

The following meetings have been held since SA #15.

Meeting	Date	Place	Host
CAMEL	8th –12th July 2002	Rome, Italy	Omnitel Vodafone
GUP	8th –12th July 2002	Rome, Italy	Omnitel Vodafone
IMS	8th –12th July 2002	Rome, Italy	Omnitel Vodafone

LCS	8th –12th July 2002	Rome, Italy	Omnitel Vodafone
MBMS	8th –12th July 2002	Rome, Italy	Omnitel Vodafone
Messaging	8th –12th July 2002	Rome, Italy	Omnitel Vodafone
Netshare	8th –12th July 2002	Rome, Italy	Omnitel Vodafone
OSA	8th –12th July 2002	Rome, Italy	Omnitel Vodafone
PUSH	8th –12th July 2002	Rome, Italy	Omnitel Vodafone
SES	8th –12th July 2002	Rome, Italy	Omnitel Vodafone
WLAN	8th –12th July 2002	Rome, Italy	Omnitel Vodafone
SA4/ Streaming	8th –12th July 2002	Rome, Italy	Omnitel Vodafone
S1#17	09th 13th August 2002,	Durrango, USA	SBC Communications Inc.

9.2   Planned meetings

The meeting schedule, was reviewed in the meeting. Proposals for hosts would be gratefully received.

SA1 Plenary

SA1#18	11 – 15 November 2002,	Bussan, Korea, hosted by Samsung
SA1#19	24 - 28 February 2003,	Sophia Antipolis, hosted by ETSI
SA1#20	12 - 16 May 2003,	USA, hosted by North American Friends of 3GPP
SA1#21	25 - 29 August 2003,	Sweden, hosted by Telia
SA1#22	03 - 07 November 2003,	Asia, hosted by NEC (or Japanese friends of 3GPP)

SA1 SWGs

SA1 SWGs #18	14 -18 October 2002,	Beijing, co-located with SA2
SA1 SWGs #19	20 -24 January 2003,	San Francisco, USA, hosted by AWS with SA2/T2
SA1 SWGs #20	07 - 11 April 2003,	No host
SA1 SWGs #21	07 - 11 July 2003,	Offer from European Friends of 3GPP
SA1 SWGs #22	06 - 10 October 2003,	Offer from North American Friends of 3GPP

Annex 1: Documents provided to this Plenary

Tdoc	Title	Agenda
SP-020545	Presentation of SA1 to SA #15	7.1.1
SP-020546	Status report of SA1 to SA #15	7.1.1
SP-020547	Release 99/4/5 CRs to 22.011 on correction to periodic PLMN scan	7.1.3
SP-020548	Release 4/5 CRs to 22.105 on Forbidden LAs for regional provision of service	7.1.3
SP-020549	Release 5 CRs to 21.905 on definitions and abbreviations	7.1.3
SP-020550	Release 5 CRs to 22.078 on CAMEL	7.1.3
SP-020551	Release 5/6 CRs to 22.101 on Clarifications on ISIM requirements Rel 5	7.1.3
SP-020552	Release 5 CRs to 22.101 on service delivery and emergency calls	7.1.3
SP-020553	Release 5 CR to 22.140 on Removal of SMS and USSD as possible bearers	7.1.3
SP-020554	Release 5 CR to 22.233 on Requirement for efficient use of transport resources for PS Streaming	7.1.3
SP-020555	Release 6 CRs to 21.905 on definitions and abbreviations	7.1.3
SP-020556	Release 6 CRs to 22.071 on LCS (Various)	7.1.3
SP-020557	Release 6 CRs to 22.101 on various subjects	7.1.3
SP-020558	Release 6 CR to 22.105 on subscriber certificates	7.1.3
SP-020559	Release 6 CRs to 22.127 on OSA	7.1.3
SP-020560	Release 6 CRs to 22.141 on Presence	7.1.3
SP-020561	Release 6 CRs to 22.146 on MBMS	7.1.3
SP-020562	Release 6 CRs to 22.228 on IMS	7.1.3
SP-020563	Release 6 CR to 22.233 on PSS server file format	7.1.3
SP-020564	Release 6 CR to 22.242 Clean-up of Digital Rights Management	7.1.3
SP-020565	TR 22.951 version 1.0.0 on Network Sharing for Information	7.1.3
SP-020566	TS 22.250, Version 1.0.0 on IMS group management capability for Information	7.1.3
SP-020567	TR 22.940, Version 1.0.0 on IMS Messaging for Information	7.1.3
SP-020568	TS 22.240, Version 1.0.0 on Generic User Profile (GUP) for Information	7.1.3

SP-020569	TR 22.934 version 2.0.0 on Wireless Local Area Networks (WLANs) for approval	7.1.3
SP-020570	TR 22.977, Version 2.0.0 on Speech Enabled Services for Approval	7.1.3
SP-020571	TS 22.174, Version 2.0.0 on Push Service for Approval	7.1.3
SP-020572	TS 22.243, Version 2.0.0 on Speech Recognition Framework for Automated Voice Services for Approval	7.1.3
SP-020573	Updated IMS group management WI (update of workplan)	7.1.3
SP-020574	Updated WLAN Interworking WID	7.1.3
SP-020575	Updated IMS WID to include Access Independence and Interoperability with Other IMS systems	7.1.3
SP-020576	Updated LCS enhancements WID to include Galileo	7.1.3
SP-020577	Update of GUP WID	7.1.3
SP-020578	Proposed WID on Feature Interactions Requirements	7.1.3
SP-020579	Proposed WID on a Generalised Privacy Capability	7.1.3

Annex 2: CRs provided to this Plenary

SA Meet	SA Doc.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc
SP-17	SP-020549	21.905	039		Rel-5	F	Addition of GERAN definitions and abbreviations	5.3.0	5.4.0	S1-021677
SP-17	SP-020549	21.905	040		Rel-5	F	Addition of missing GSM/GPRS abbreviations	5.3.0	5.4.0	S1-021676
SP-17	SP-020555	21.905	041		Rel-6	B	CR to 21.905 definitions from TR 22.951	5.4.0	6.0.0	S1-021762
SP-17	SP-020555	21.905	042		Rel-6	F	Enhancement of the definition of the 'Subscriber'	5.4.0	6.0.0	S1-021715
SP-17	SP-020547	22.011	047		R99	F	CR to 22.011 Rel 99 - correction to periodic PLMN scan	3.7.0	3.8.0	S1-021824
SP-17	SP-020547	22.011	048		Rel-4	A	CR to 22.011 Rel 4 - correction to periodic PLMN scan	4.7.0	4.8.0	S1-021825
SP-17	SP-020547	22.011	049		Rel-5	A	CR to 22.011 Rel 5 - correction to periodic PLMN scan	5.0.0	5.1.0	S1-021826
SP-17	SP-020556	22.071	042		Rel-6	D	CR to 22.071: Too big file size	6.0.0	6.1.0	S1-021662
SP-17	SP-020556	22.071	043		Rel-6	B	CR to 22.071 on LCS Anonymous requestor and anonymous target mobile (REL6)	6.0.0	6.1.0	S1-021794
SP-17	SP-020556	22.071	044		Rel-6	B	CR to 22.071 on LCS Codeword improvements (REL6)	6.0.0	6.1.0	S1-021490
SP-17	SP-020556	22.071	045		Rel-6	B	LCS extended user privacy	6.0.0	6.1.0	S1-021491
SP-17	SP-020556	22.071	046		Rel-6	C	Update to 22.071 for regional specific location accuracy requirements	6.0.0	6.1.0	S1-021799
SP-17	SP-020550	22.078	148		Rel-5	F	Clarification on re-connecting held parties in a CPH configuration	5.7.0	5.8.0	S1-021675
SP-17	SP-020550	22.078	149		Rel-5	C	Handling of partial implementations of CAMEL phase 4	5.7.0	5.8.0	S1-021538
SP-17	SP-020557	22.101	097	1	Rel-6	B	Release 6 ISIM requirement	6.0.0	6.1.0	S1-021811
SP-17	SP-020552	22.101	098	1	Rel-5	F	Clarification of IMS service delivery (for rel 5)	5.6.0	5.7.0	S1-021780
SP-17	SP-020552	22.101	100	1	Rel-5	F	Additional download functionality to emergency call procedures	5.6.0	5.7.0	S1-021776
SP-17	SP-020551	22.101	101		Rel-5	F	Clarifications on ISIM requirements Rel 5	5.6.0	5.7.0	S1-021836
SP-17	SP-020551	22.101	102		Rel-6	A	Clarifications on ISIM requirements Rel 5	6.0.0	6.1.0	S1-021837
SP-17	SP-020557	22.101	103		Rel-6	F	Clarification of SIM support in Rel-6	6.0.0	6.1.0	S1-021849
SP-17	SP-020557	22.101	104		Rel-6	B	CR to 22.101 Removal of implementation details for directory number in SMS and other services	6.0.0	6.1.0	S1-021755
SP-17	SP-020557	22.101	105		Rel-6	F	CR to 22.101 Rel-6 Clean up of IMS Rel 6 to re-instate requirements	6.0.0	6.1.0	S1-021775
SP-17	SP-020548	22.105	037		Rel-4	F	CR on 22.105 Rel4, Forbidden LAs for	4.3.0	4.4.0	S1-021631

							regional provision of service			
SP-17	SP-020548	22.105	038		Rel-5	A	CR on 22.105 Rel5, Forbidden LAs for regional provision of service	5.2.0	5.3.0	S1-021634
SP-17	SP-020558	22.105	039		Rel-6	B	CR to 22.105 on subscriber certificates	5.2.0	6.0.0	S1-021782
SP-17	SP-020559	22.127	050		Rel-6	B	Reintroduction of User Data management and User data security management postponed from R5	6.0.0	6.1.0	S1-021830
SP-17	SP-020559	22.127	051		Rel-6	B	Network function for Multimedia Messaging	6.0.0	6.1.0	S1-021854
SP-17	SP-020559	22.127	052		Rel-6	C	OSA support of enhanced user privacy	6.0.0	6.1.0	S1-021716
SP-17	SP-020559	22.127	053		Rel-6	B	Reintroduction of features postponed in Rel-5	6.0.0	6.1.0	S1-021720
SP-17	SP-020559	22.127	054		Rel-6	C	CR 22.127 extensions to policy management complex parameters	6.0.0	6.1.0	S1-021721
SP-17	SP-020559	22.127	055		Rel-6	C	CR 22.127 extensions to policy management third party applications	6.0.0	6.1.0	S1-021722
SP-17	SP-020559	22.127	056		Rel-6	B	CR 22.127 - Reintroduction of Presence Service	6.0.0	6.1.0	S1-021596
SP-17	SP-020559	22.127	057		Rel-6	B	CR on OSA support of Generic Network Interface function	6.0.0	6.1.0	S1-021718
SP-17	SP-020553	22.140	017		Rel-5	F	Removal of SMS and USSD as possible bearers from 22.140 v5.2.0	5.2.0	5.3.0	S1-021786
SP-17	SP-020560	22.141	015		Rel-6	F	Presence TS - Cleaning of requirements	6.0.0	6.1.0	S1-021592
SP-17	SP-020560	22.141	016		Rel-6	F	Presence TS - Tidy up of security requirements	6.0.0	6.1.0	S1-021781
SP-17	SP-020561	22.146	033		Rel-6	B	Support of simultaneous services in MBMS	6.0.0	6.1.0	S1-021473
SP-17	SP-020561	22.146	034		Rel-6	F	Proposal for Amalgamation of 1279, 1334, 1291	6.0.0	6.1.0	S1-021472
SP-17	SP-020561	22.146	035		Rel-6	B	Proposed CR to 22.146: addition of QoS information	6.0.0	6.1.0	S1-021471
SP-17	SP-020561	22.146	036		Rel-6	F	MBMS Editorial CR	6.0.0	6.1.0	S1-021469
SP-17	SP-020561	22.146	037		Rel-6	F	Proposed CR 22.146 on MBMS Availability	6.0.0	6.1.0	S1-021483
SP-17	SP-020561	22.146	038		Rel-6	C	Proposed CR to 22.146: Multicast service discovery	6.0.0	6.1.0	S1-021481
SP-17	SP-020561	22.146	039		Rel-6	B	CR to 22.146 on MBMS Charging	6.0.0	6.1.0	S1-021475
SP-17	SP-020562	22.228	015	1	Rel-6	B	Release 6 ISIM requirement	6.0.0	6.1.0	S1-021812
SP-17	SP-020562	22.228	017		Rel-6	B	CR to 22.228 Rel 6 on IMS interworking	6.0.0	6.1.0	S1-021771
SP-17	SP-020562	22.228	018		Rel-6	B	Rel 6 22.101 CR on Independent and linked subscriptions	6.0.0	6.1.0	S1-021838
SP-17	SP-020554	22.233	001		Rel-5	B	Requirement for efficient use of transport resources for PS Streaming	5.0.0	6.0.0	S1-021791
SP-17	SP-020563	22.233	002		Rel-6	B	CR, PSS server file format	5.0.0	6.0.0	S1-021627
SP-17	SP-020564	22.242	001		Rel-6	F	Clean-up of TS 22.242	6.0.0	6.1.0	S1-021609

Annex 3: 3G&GSM TSs and TRs under SA1 responsibility

Type	Number	Title	Release	current version
TS	01.02	General Description of a GSM Public Land Mobile Network (PLMN)	Ph2	4.0.2
TS	01.02	General Description of a GSM Public Land Mobile Network (PLMN)	R96	5.0.0
TS	01.02	General Description of a GSM Public Land Mobile Network (PLMN)	R97	6.0.1
TS	01.48	ISDN-based DECT/GSM interworking; Feasibility study	R96	5.0.1
TS	01.48	ISDN-based DECT/GSM interworking; Feasibility study	R97	6.0.1
TS	01.56	GSM Cordless Telephony System (CTS) (Phase 1); CTS Authentication and Key Generation Algorithms Requirements	R98	7.0.0
TR	01.60	GPRS requirements	R97	6.0.0
TS	02.01	Principles of telecommunication services supported by a GSM Public Land Mobile Network(PLMN)	Ph1	3.2.0
TS	02.01	Principles of telecommunication services supported by a GSM Public Land Mobile Network(PLMN)	Ph2	4.6.0
TS	02.01	Principles of telecommunication services supported by a GSM Public Land Mobile Network(PLMN)	R96	5.5.0
TS	02.01	Principles of telecommunication services supported by a GSM Public Land Mobile Network(PLMN)	R97	6.2.0
TS	02.01	Principles of telecommunication services supported by a GSM Public Land Mobile Network(PLMN)	R98	7.1.0
TS	02.02	Bearer Services (BS) Supported by a GSM Public Land Mobile Network (PLMN)	Ph1	3.2.0
TS	02.02	Bearer Services (BS) Supported by a GSM Public Land Mobile Network (PLMN)	Ph2	4.2.2
TS	02.02	Bearer Services (BS) Supported by a GSM Public Land Mobile Network (PLMN)	R96	5.3.2
TS	02.02	Bearer Services (BS) Supported by a GSM Public Land Mobile Network (PLMN)	R97	6.1.1
TS	02.02	Bearer Services (BS) Supported by a GSM Public Land Mobile Network (PLMN)	R98	7.0.2
TS	02.03	Teleservices Supported by a GSM Public Land Mobile Network (PLMN)	Ph1	3.4.1
TS	02.03	Teleservices Supported by a GSM Public Land Mobile Network (PLMN)	Ph2	4.3.1
TS	02.03	Teleservices Supported by a GSM Public Land Mobile Network (PLMN)	R96	5.3.2
TS	02.03	Teleservices Supported by a GSM Public Land Mobile Network (PLMN)	R97	6.0.0
TS	02.03	Teleservices Supported by a GSM Public Land Mobile Network (PLMN)	R98	7.0.0
TS	02.04	General on Supplementary Services	Ph1	3.7.1
TS	02.04	General on Supplementary Services	Ph2	4.9.1
TS	02.04	General on Supplementary Services	R96	5.7.4
TS	02.04	General on Supplementary Services	R97	6.1.1
TS	02.04	General on Supplementary Services	R98	7.1.2
TS	02.06	Types of Mobile Stations (MS)	Ph1	3.2.0
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TS	02.11	Service Accessibility	Ph1-DCS	3.1.0
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TS	02.11	Service Accessibility	R97	6.1.0
TS	02.11	Service Accessibility	R98	7.1.0
TS	02.16	International Mobile Station Equipment Identities (IMEI)	Ph1	3.0.1
TS	02.16	International Mobile Station Equipment Identities (IMEI)	Ph2	4.7.1
TS	02.16	International Mobile Station Equipment Identities (IMEI)	R96	5.2.0
TS	02.16	International Mobile Station Equipment Identities (IMEI)	R97	6.2.0
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TS	02.22	Stage 1 for personalisation of GSM ME	R96	5.4.0
TS	02.22	Stage 1 for personalisation of GSM ME	R97	6.0.0
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TS	02.24	Description of Charge Advice Information (CAI)	Ph2	4.5.0
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TS	02.24	Description of Charge Advice Information (CAI)	R97	6.0.1
TS	02.24	Description of Charge Advice Information (CAI)	R98	7.0.1
TS	02.30	Man-machine Interface (MMI) of the Mobile Station (MS)	Ph1	3.9.0
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TS	02.30	Man-machine Interface (MMI) of the Mobile Station (MS)	R96	5.7.1
TS	02.30	Man-machine Interface (MMI) of the Mobile Station (MS)	R97	6.1.0
TS	02.30	Man-machine Interface (MMI) of the Mobile Station (MS)	R98	7.1.1
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TS	02.40	Procedures for Call Progress Indications	R96	5.0.0
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TS	02.42	Network Identity and Timezone (NITZ); Service Description, Stage 1	R97	6.0.0
TS	02.42	Network Identity and Timezone (NITZ); Service Description, Stage 1	R98	7.0.0
TS	02.43	Support of Localised Service Area (SoLSA); Service description; Stage 1	R98	7.3.0

TS	02.43	Support of Localised Service Area (SoLSA); Service description; Stage 1	R99	8.0.0
TS	02.56	GSM Cordless Telephony System (CTS), Phase 1; Service description; Stage 1	R98	7.2.1
TS	02.56	GSM Cordless Telephony System (CTS), Phase 1; Service description; Stage 1	R99	8.0.1
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TS	02.60	General Packet Radio Service Stage 1 Description	R98	7.5.0
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TS	02.63	Packet Data on Signalling channels Service (PDS); Stage 1	R97	6.0.0
TS	02.63	Packet Data on Signalling channels Service (PDS); Stage 1	R98	7.0.0
TS	02.66	Support of Mobile Number Portability (MNP); Service description; Stage 1	R98	7.1.0
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TS	02.67	Enhanced Multi-Level Precedence and Pre-emption Service (eMLPP); Stage 1	R97	6.1.1
TS	02.67	Enhanced Multi-Level Precedence and Pre-emption Service (eMLPP); Stage 1	R98	7.0.1
TS	02.68	Voice Group Call Service (VGCS); Stage 1	R96	5.2.1
TS	02.68	Voice Group Call Service (VGCS); Stage 1	R97	6.0.1
TS	02.68	Voice Group Call Service (VGCS); Stage 1	R98	7.0.2
TS	02.68	Voice Group Call Service (VGCS); Stage 1	R99	8.1.0
TS	02.69	Voice Broadcast Service (VBS); Stage 1	R96	5.2.1
TS	02.69	Voice Broadcast Service (VBS); Stage 1	R97	6.0.1
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TS	02.69	Voice Broadcast Service (VBS); Stage 1	R99	8.1.0
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TS	02.81	Line Identification Supplementary Services; Stage 1	R96	5.1.0
TS	02.81	Line Identification Supplementary Services; Stage 1	R97	6.0.0
TS	02.81	Line Identification Supplementary Services; Stage 1	R98	7.0.0
TS	02.82	Call Forwarding (CF) Supplementary Services; Stage 1	Ph1	3.6.1
TS	02.82	Call Forwarding (CF) Supplementary Services; Stage 1	Ph2	4.5.2
TS	02.82	Call Forwarding (CF) Supplementary Services; Stage 1	R96	5.0.0
TS	02.82	Call Forwarding (CF) Supplementary Services; Stage 1	R97	6.0.0

TS	02.82	Call Forwarding (CF) Supplementary Services; Stage 1	R98	7.0.1
TS	02.83	Call Waiting (CW) and Call Hold (HOLD) Supplementary Services; Stage 1	Ph2	4.6.7
TS	02.83	Call Waiting (CW) and Call Hold (HOLD) Supplementary Services; Stage 1	R96	5.0.0
TS	02.83	Call Waiting (CW) and Call Hold (HOLD) Supplementary Services; Stage 1	R97	6.0.0
TS	02.83	Call Waiting (CW) and Call Hold (HOLD) Supplementary Services; Stage 1	R98	7.0.0
TS	02.84	MultiParty (MPTY) Supplementary Services; Stage 1	Ph2	4.4.7
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TS	02.84	MultiParty (MPTY) Supplementary Services; Stage 1	R97	6.0.0
TS	02.84	MultiParty (MPTY) Supplementary Services; Stage 1	R98	7.0.0
TS	02.85	Closed User Group (CUG) Supplementary Services; Stage 1	Ph2	4.2.6
TS	02.85	Closed User Group (CUG) Supplementary Services; Stage 1	R96	5.0.0
TS	02.85	Closed User Group (CUG) Supplementary Services; Stage 1	R97	6.0.0
TS	02.85	Closed User Group (CUG) Supplementary Services; Stage 1	R98	7.0.0
TS	02.86	Advice of Charge (AoC) Supplementary Services; Stage 1	Ph2	4.1.5
TS	02.86	Advice of Charge (AoC) Supplementary Services; Stage 1	R96	5.0.0
TS	02.86	Advice of Charge (AoC) Supplementary Services; Stage 1	R97	6.0.0
TS	02.86	Advice of Charge (AoC) Supplementary Services; Stage 1	R98	7.0.0
TS	02.87	User-to-User Signalling (UUS) Service Description; Stage 1	R98	7.1.2
TS	02.88	Call Barring (CB) Supplementary Services; Stage 1	Ph1	3.6.1
TS	02.88	Call Barring (CB) Supplementary Services; Stage 1	Ph2	4.4.3
TS	02.88	Call Barring (CB) Supplementary Services; Stage 1	R96	5.0.0
TS	02.88	Call Barring (CB) Supplementary Services; Stage 1	R97	6.0.0
TS	02.88	Call Barring (CB) Supplementary Services; Stage 1	R98	7.0.0
TS	02.90	Unstructured Supplementary Service Data (USSD); Stage 1	Ph2	4.1.1
TS	02.90	Unstructured Supplementary Service Data (USSD); Stage 1	R96	5.1.0
TS	02.90	Unstructured Supplementary Service Data (USSD); Stage 1	R97	6.0.0
TS	02.90	Unstructured Supplementary Service Data (USSD); Stage 1	R98	7.0.0
TS	02.91	Explicit Call Transfer (ECT)	R96	5.1.1
TS	02.91	Explicit Call Transfer (ECT)	R97	6.0.0
TS	02.91	Explicit Call Transfer (ECT)	R98	7.0.0
TS	02.93	Completion of Calls to Busy Subcriber (CCBS) Service Description; Stage 1	R97	6.0.1
TS	02.93	Completion of Calls to Busy Subcriber (CCBS) Service Description; Stage 1	R98	7.0.0
TS	02.94	Follow Me Service description; Stage 1	R99	8.0.0
TS	02.95	Support of Private Numbering Plan (SPNP); Service description; Stage 1	R96	5.2.0
TS	02.95	Support of Private Numbering Plan (SPNP); Service description; Stage 1	R97	6.0.0
TS	02.95	Support of Private Numbering Plan (SPNP); Service description; Stage 1	R98	7.0.0
TS	02.95	Support of Private Numbering Plan (SPNP); Service description; Stage 1	R99	8.0.0
TS	02.96	Name Identification Supplementary Services; Stage 1	R97	6.0.1

TS	02.96	Name Identification Supplementary Services; Stage 1	R98	7.0.0
TS	02.97	Multiple Subscriber Profile (MSP) Service description, Stage 1	R98	7.1.0
TR	21.905	Vocabulary for 3GPP Specifications	R99	3.3.0
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TR	21.905	Vocabulary for 3GPP Specifications	Rel-5	5.4.0
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TS	22.001	Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN)	Rel-4	4.3.0
TS	22.001	Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN)	Rel-5	5.0.0
TS	22.002	Circuit Bearer Services (BS) supported by a Public Land Mobile Network (PLMN)	R99	3.6.0
TS	22.002	Circuit Bearer Services (BS) supported by a Public Land Mobile Network (PLMN)	Rel-4	4.2.0
TS	22.002	Circuit Bearer Services (BS) supported by a Public Land Mobile Network (PLMN)	Rel-5	5.0.0
TS	22.003	Circuit Teleservices supported by a Public Land Mobile Network (PLMN)	R99	3.3.0
TS	22.003	Circuit Teleservices supported by a Public Land Mobile Network (PLMN)	Rel-4	4.3.0
TS	22.003	Circuit Teleservices supported by a Public Land Mobile Network (PLMN)	Rel-5	5.2.0
TS	22.004	General on Supplementary Services	R99	3.3.0
TS	22.004	General on Supplementary Services	Rel-4	4.2.0
TS	22.004	General on Supplementary Services	Rel-5	5.0.0
TS	22.011	Service accessibility	R99	3.7.0
TS	22.011	Service accessibility	Rel-4	4.7.0
TS	22.011	Service accessibility	Rel-5	5.0.0
TS	22.016	International Mobile Equipment Identities (IMEI)	R99	3.3.0
TS	22.016	International Mobile Equipment Identities (IMEI)	Rel-4	4.2.1
TS	22.016	International Mobile Equipment Identities (IMEI)	Rel-5	5.0.0
TS	22.024	Description of Charge Advice Information (CAI)	R99	3.0.1
TS	22.024	Description of Charge Advice Information (CAI)	Rel-4	4.0.0
TS	22.024	Description of Charge Advice Information (CAI)	Rel-5	5.0.0
TS	22.030	Man-Machine Interface (MMI) of the User Equipment (UE)	R99	3.4.0
TS	22.030	Man-Machine Interface (MMI) of the User Equipment (UE)	Rel-4	4.1.0
TS	22.030	Man-Machine Interface (MMI) of the User Equipment (UE)	Rel-5	5.0.0
TS	22.034	High Speed Circuit Switched Data (HSCSD); Stage 1	R99	3.2.1
TS	22.034	High Speed Circuit Switched Data (HSCSD); Stage 1	Rel-4	4.1.0
TS	22.034	High Speed Circuit Switched Data (HSCSD); Stage 1	Rel-5	5.0.0
TS	22.038	USIM/SIM Application Toolkit (USAT/SAT); Service description; Stage 1	R99	3.2.0
TS	22.038	USIM/SIM Application Toolkit (USAT/SAT); Service description; Stage 1	Rel-4	4.1.0
TS	22.038	USIM/SIM Application Toolkit (USAT/SAT); Service description; Stage 1	Rel-5	5.2.0
TS	22.041	Operator Determined Call Barring	R99	3.3.1

TS	22.041	Operator Determined Call Barring	Rel-4	4.1.0
TS	22.041	Operator Determined Call Barring	Rel-5	5.0.0
TS	22.042	Network Identity and Time Zone (NITZ) service description; Stage 1	R99	3.0.1
TS	22.042	Network Identity and Time Zone (NITZ) service description; Stage 1	Rel-4	4.1.0
TS	22.042	Network Identity and Time Zone (NITZ) service description; Stage 1	Rel-5	5.0.0
TS	22.057	Mobile Execution Environment (MExE) service description; Stage 1	R99	3.0.1
TS	22.057	Mobile Execution Environment (MExE) service description; Stage 1	Rel-4	4.1.0
TS	22.057	Mobile Execution Environment (MExE) service description; Stage 1	Rel-5	5.4.0
TS	22.060	General Packet Radio Service (GPRS); Service description; Stage 1	R99	3.5.0
TS	22.060	General Packet Radio Service (GPRS); Service description; Stage 1	Rel-4	4.4.0
TS	22.060	General Packet Radio Service (GPRS); Service description; Stage 1	Rel-5	5.2.0
TS	22.066	Support of Mobile Number Portability (MNP); Stage 1	R99	3.2.0
TS	22.066	Support of Mobile Number Portability (MNP); Stage 1	Rel-4	4.0.0
TS	22.066	Support of Mobile Number Portability (MNP); Stage 1	Rel-5	5.0.0
TS	22.067	enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 1	R99	3.0.1
TS	22.067	enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 1	Rel-4	4.1.0
TS	22.067	enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 1	Rel-5	5.0.0
TS	22.071	Location Services (LCS); Stage 1	R99	3.4.0
TS	22.071	Location Services (LCS); Stage 1	Rel-4	4.4.1
TS	22.071	Location Services (LCS); Stage 1	Rel-5	5.1.1
TS	22.071	Location Services (LCS); Stage 1	Rel-6	6.0.0
TS	22.072	Call Deflection (CD); Stage 1	R99	3.0.1
TS	22.072	Call Deflection (CD); Stage 1	Rel-4	4.0.0
TS	22.072	Call Deflection (CD); Stage 1	Rel-5	5.0.0
TS	22.078	Customized Applications for Mobile network Enhanced Logic (CAMEL); Service description; Stage 1	R99	3.9.0
TS	22.078	Customized Applications for Mobile network Enhanced Logic (CAMEL); Service description; Stage 1	Rel-4	4.5.0
TS	22.078	Customized Applications for Mobile network Enhanced Logic (CAMEL); Service description; Stage 1	Rel-5	5.7.0
TS	22.079	Support of optimal routeing; Stage 1	R99	3.0.1
TS	22.079	Support of optimal routeing; Stage 1	Rel-4	4.0.0
TS	22.079	Support of optimal routeing; Stage 1	Rel-5	5.0.0
TS	22.081	Line Identification supplementary services; Stage 1	R99	3.2.0
TS	22.081	Line Identification supplementary services; Stage 1	Rel-4	4.1.0
TS	22.081	Line Identification supplementary services; Stage 1	Rel-5	5.0.0
TS	22.082	Call Forwarding (CF) Supplementary Services; Stage 1	R99	3.0.1
TS	22.082	Call Forwarding (CF) Supplementary Services; Stage 1	Rel-4	4.2.0
TS	22.082	Call Forwarding (CF) Supplementary Services; Stage 1	Rel-5	5.0.0
TS	22.083	Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 1	R99	3.0.1
TS	22.083	Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 1	Rel-4	4.1.0
TS	22.083	Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 1	Rel-5	5.0.0

TS	22.084	MultiParty (MPTY) supplementary service; Stage 1	R99	3.0.1
TS	22.084	MultiParty (MPTY) supplementary service; Stage 1	Rel-4	4.1.0
TS	22.084	MultiParty (MPTY) supplementary service; Stage 1	Rel-5	5.0.0
TS	22.085	Closed User Group (CUG) supplementary services; Stage 1	R99	3.1.0
TS	22.085	Closed User Group (CUG) supplementary services; Stage 1	Rel-4	4.1.0
TS	22.085	Closed User Group (CUG) supplementary services; Stage 1	Rel-5	5.0.0
TS	22.086	Advice of Charge (AoC) supplementary services; Stage 1	R99	3.1.0
TS	22.086	Advice of Charge (AoC) supplementary services; Stage 1	Rel-4	4.0.0
TS	22.086	Advice of Charge (AoC) supplementary services; Stage 1	Rel-5	5.0.0
TS	22.087	User-to-user signalling (UUS); Stage 1	R99	3.1.0
TS	22.087	User-to-user signalling (UUS); Stage 1	Rel-4	4.0.0
TS	22.087	User-to-user signalling (UUS); Stage 1	Rel-5	5.0.0
TS	22.088	Call Barring (CB) supplementary services; Stage 1	R99	3.0.2
TS	22.088	Call Barring (CB) supplementary services; Stage 1	Rel-4	4.1.0
TS	22.088	Call Barring (CB) supplementary services; Stage 1	Rel-5	5.0.0
TS	22.090	Unstructured Supplementary Service Data (USSD); Stage 1	R99	3.1.0
TS	22.090	Unstructured Supplementary Service Data (USSD); Stage 1	Rel-4	4.0.0
TS	22.090	Unstructured Supplementary Service Data (USSD); Stage 1	Rel-5	5.0.0
TS	22.091	Explicit Call Transfer (ECT) supplementary service; Stage 1	R99	3.1.0
TS	22.091	Explicit Call Transfer (ECT) supplementary service; Stage 1	Rel-4	4.0.0
TS	22.091	Explicit Call Transfer (ECT) supplementary service; Stage 1	Rel-5	5.0.0
TS	22.093	Completion of Calls to Busy Subscriber (CCBS); Service description, Stage 1	R99	3.0.1
TS	22.093	Completion of Calls to Busy Subscriber (CCBS); Service description, Stage 1	Rel-4	4.0.0
TS	22.093	Completion of Calls to Busy Subscriber (CCBS); Service description, Stage 1	Rel-5	5.0.0
TS	22.094	Follow Me service description - Stage 1	R99	3.1.0
TS	22.094	Follow Me service description - Stage 1	Rel-4	4.1.0
TS	22.094	Follow Me service description - Stage 1	Rel-5	5.0.0
TS	22.096	Name identification supplementary services; Stage 1	R99	3.0.1
TS	22.096	Name identification supplementary services; Stage 1	Rel-4	4.0.0
TS	22.096	Name identification supplementary services; Stage 1	Rel-5	5.0.0
TS	22.097	Multiple Subscriber Profile (MSP) Phase 1; Service description - Stage 1	R99	3.2.0
TS	22.097	Multiple Subscriber Profile (MSP) Phase 1; Service description - Stage 1	Rel-4	4.1.0
TS	22.097	Multiple Subscriber Profile (MSP) Phase 1; Service description - Stage 1	Rel-5	5.0.0
TS	22.100	UMTS Phase 1	R99	3.7.0
TS	22.101	Service aspects; Service principles	R99	3.13.0
TS	22.101	Service aspects; Service principles	Rel-4	4.6.0
TS	22.101	Service aspects; Service principles	Rel-5	5.6.0
TS	22.101	Service aspects; Service principles	Rel-6	6.0.0
TS	22.105	Services & service capabilities	R99	3.10.0
TS	22.105	Services & service capabilities	Rel-4	4.3.0
TS	22.105	Services & service capabilities	Rel-5	5.2.0
TS	22.115	Service Aspects Charging and billing	R99	3.3.0

TS	22.115	Service Aspects Charging and billing	Rel-4	4.0.0
TS	22.115	Service Aspects Charging and billing	Rel-5	5.2.0
TR	22.121	Service aspects; The Virtual Home Environment; Stage 1	R99	3.3.1
TR	22.121	Service aspects; The Virtual Home Environment; Stage 1	Rel-4	4.1.1
TR	22.121	Service aspects; The Virtual Home Environment; Stage 1	Rel-5	5.3.1
TS	22.127	Service Requirement for the Open Services Access (OSA); Stage 1	Rel-4	4.4.0
TS	22.127	Service Requirement for the Open Services Access (OSA); Stage 1	Rel-5	5.4.0
TS	22.127	Service Requirement for the Open Services Access (OSA); Stage 1	Rel-6	6.0.0
TS	22.129	Handover requirements between UTRAN and GERAN or other radio systems	R99	3.6.0
TS	22.129	Handover requirements between UTRAN and GERAN or other radio systems	Rel-4	4.4.0
TS	22.129	Handover requirements between UTRAN and GERAN or other radio systems	Rel-5	5.2.0
TS	22.135	Multicall; Service description; Stage 1	R99	3.4.0
TS	22.135	Multicall; Service description; Stage 1	Rel-4	4.2.0
TS	22.135	Multicall; Service description; Stage 1	Rel-5	5.0.0
TS	22.140	Multimedia Messaging Service (MMS); Stage 1	R99	3.1.0
TS	22.140	Multimedia Messaging Service (MMS); Stage 1	Rel-4	4.2.0
TS	22.140	Multimedia Messaging Service (MMS); Stage 1	Rel-5	5.2.0
TS	22.140	Multimedia Messaging Service (MMS); Stage 1	Rel-6	6.0.0
TS	22.141	Presence service; Stage 1	Rel-6	6.0.0
TS	22.146	Multimedia Broadcast/Multicast Service (MBMS); Stage 1	Rel-6	6.0.0
TS	22.174	Push service; Stage 1	Rel-6	1.0.1
TS	22.177	Speech-enabled services; Stage 1	Rel-6	none
TS	22.226	Global text telephony (GTT); Stage 1: Service description	Rel-5	5.2.0
TS	22.228	Service requirements for the Internet Protocol (IP) multimedia core network subsystem; Stage 1	Rel-5	5.6.0
TS	22.228	Service requirements for the Internet Protocol (IP) multimedia core network subsystem; Stage 1	Rel-6	6.0.0
TS	22.233	Transparent end-to-end packet-switched streamng service; Stage 1	Rel-5	5.0.0
TS	22.240	3GPP Generic User Profile (GUP) requirements; Stage 1	Rel-6	none
TS	22.242	Digital Rights Management (DRM); Stage 1	Rel-6	6.0.0
TS	22.243	Distributed speech recognition based automated voice services	Rel-6	1.2.0
TS	22.250	IP Multimedia Subsystem (IMS) Group Management; Stage 1	Rel-6	0.1.0
TR	22.928	IP-based multimedia services examples	Rel-5	none
TR	22.934	Feasibility study on 3GPP system to Wireles Local Area Network (WLAN) interworking	Rel-6	1.0.0
TR	22.940	IP Multimedia Subsystem (IMS) messaging; Stage 1	Rel-6	0.2.0
TR	22.941	IP based multimedia framework; Stage 0	Rel-5	0.7.0
TR	22.944	Service requirements for UE functionality split	Rel-5	5.1.0
TR	22.950	Priority service feasibility study	Rel-6	6.0.0
TR	22.951	Network sharing	Rel-6	none
TR	22.971	Automatic establishment of roaming relationships	R99	3.1.1
TR	22.975	Advanced addressing	R99	3.1.0
TR	22.976	Study on PS domain services and capabilities	Rel-5	2.0.0
TR	22.977	Feasibility study for speech-enabled services	Rel-6	1.0.0
TR	23.934	3GPP system to Wireles Local Area Network (WLAN) interworking;	Rel-6	0.1.0

		Functional and architectural definition			
TS	42.043	Support of Localised Service Area (SoLSA); Service description; Stage 1	Rel-4	4.0.0	
TS	42.043	Support of Localised Service Area (SoLSA); Service description; Stage 1	Rel-5	5.0.0	
TS	42.056	GSM Cordless Telephony System (CTS), Phase 1; Service description; Stage 1	Rel-4	4.0.0	
TS	42.056	GSM Cordless Telephony System (CTS), Phase 1; Service description; Stage 1	Rel-5	5.0.0	
TS	42.068	Voice Group Call Service (VGCS); Stage 1	Rel-4	4.1.0	
TS	42.068	Voice Group Call Service (VGCS); Stage 1	Rel-5	5.0.0	
TS	42.069	Voice Broadcast Service (VBS); Stage 1	Rel-4	4.1.0	
TS	42.069	Voice Broadcast Service (VBS); Stage 1	Rel-5	5.0.1	