

Source: Chairman, Secretary SA1
Title: Status Report of SA_WG1 (Services)
Document for: Information and Decision
Agenda Item: 7.1.1

TSG SA1 STATUS REPORT

1	General Overview of Progress	3
2	External Liaisons	3
3	Change Requests for Rel-4 or earlier	3
3.1	Correction of table (22.002)	3
3.2	Type approval code (22.016)	3
3.3	Editorial corrections on 22.011, 22.034	4
3.4	GPRS (22.060)	5
3.6	Corrections on terminology (22.135)	5
4	Change Requests for Rel-5.....	6
4.1	Definitions and Abbreviations (21.905).....	6
4.2	Correction of terminology and references (22.002).....	6
4.3	Corrections on ASCII and Fax due to GERAN lu mode (22.003)	6
4.4	Correction usage of MExE application (22.057).....	6
4.5	CAMEL (22.078)	7
4.6	Service aspects; Service principles (22.101 Rel-5).....	8
4.7	GERAN lu mode related updates (22.105).....	8
4.8	OSA (22.127).....	8
4.9	Access rights in connected mode (22.129)	10
4.10	Introduction of short codes for VASP addressing (22.140)	10
4.11	Release 5 clean-up of IMS (22.228)	10
4.12	Service Requirements for UE Functionality Split (22.944)	10
5	Change Requests for Rel-6.....	11
5.1	Location services (LCS) 22.071.....	11
5.2	Service aspects; Service principles (22.101 Rel-6).....	11
5.3	OSA (22.127 Rel-6)	11
5.4	Multimedia Broadcast/Multicast Service (22.146 Rel-6).....	12
5.5	IMS (22.228 Rel-6).....	12
6	New TSs/TRs	13
6.1	PUSH stage 1 (22.174 V1.0.0)	13
6.2	Speech Enabled services (22.977 V1.0.)	13
6.3	Priority Service Feasibility Study Report (22.950 V2.0.0).....	13
6.4	Digital Rights Management (22.242 V2.0.0).....	13
7	WIs from SA1	13
7.1	Updated WIs from SA1	13
7.1.1	Speech recognition framework	13
7.1.2	Updated Presence Service WID.....	14
7.2	New WIs from SA1.....	14
7.2.1	Location services enhancements (Release 6)	14
7.2.2	IMS enhancements (Release 6)	14
7.2.3	Push Service for (Release 6).....	14
8	Other Issues	15

8.1	Release 4 to release 5	15
8.2	VHE.....	15
8.3	Presence.....	15
9	Meetings of SA1	16
9.1	Meetings since last SA	16
9.2	Planned meetings	16
	SA1 Plenary	16
	Annex 1: Documents provided to this Plenary.....	17
	Annex 2: CRs provided to this Plenary	19
	Annex 3: 3G&GSM TSs and TRs under SA1 responsibility	21

1 General Overview of Progress

The TSG_SA_WG1#16 Plenary Meeting was held in Victoria, Canada from the 13th to 17th May 2002. It was chaired by Mr Kevin Holley (mmO2) and the secretary was Mr Michael Clayton from the MCC. The host was AT&T Wireless and Rogers Wireless.

2 External Liaisons

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

Document Number	Title	To	Copy	Sent
S1-020860	Response LS to SA3 on new security requirements for LCS	SA3, SA2, LIF, CN5		25/04/2002

SA1 has also received a draft new Question Q. ets/16 on Emergency Telecommunications Service (ETS) from Study group 16. It would appear that the work on priority may have an impact on this. It was decided in SA1 to draft a position statement to the ITU to explain what we are doing on Priority and other services such as broadcast services.

The position statement is provided in document SP-020229 for approval and forwarding to ITU if appropriate.

Document Number	Title	To	Copy	Sent
SP-020229	SA1's position on priority services	SA		Not sent

3 Change Requests for Rel-4 or earlier

3.1 Correction of table (22.002)

SA1 is presenting a R99 CR to correct table 3.2 in 22.004. The reason is that it is not clear in table 3.2 which services apply in GERAN and UTRAN. Moreover, BS70 (GPRS bearer service) does not exist. The CR is presented in document SP-020236 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-16	SP-020236	22.004	007		R99	F	Correction of table 3.2 of TS22.004	3.2.1	3.3.0	S1-020981
SP-16	SP-020236	22.004	008		Rel-4	A	Correction to Table 3.2 (rel-4)	4.1.0	4.2.0	S1-020985
SP-16	SP-020236	22.004	009		Rel-5	A	Correction of Table 3.2 (rel-5)	4.1.0	4.2.0	S1-020987

3.2 Type approval code (22.016)

Prior to the implementation of the EU R&TTE directive, the TAC code was issued once a mobile had achieved Type Approval. However, the R&TTE directive removed the need for formal type approval before placing products on the market and moved to a self certification system .

Under the old EU TTE directive the TAC code allocation was tied to the type approval tests being successfully completed, without a Type Approval Test another mechanism for allocating TAC codes was needed.

This was discussed by an ad hoc group called "GISF" which involved Manufacturers (including Ericsson, Nokia, Motorola, Panasonic and Siemens) and Operators (including NTT-DoCoMo, 02, Orange, Telstra, T-Mobile, Vodafone and Voicestream) other Manufacturers were consulted through other Industry Groups as were Operators through the GSMA-TWG.

The GISF group noted that to ensure that the numbering structure had a suitable capacity to address both 2G and 3G then the use of the FAC code field needed to be carefully considered. Many allocations of TAC codes have one or two FAC codes below them resulting in only 1-2% of the total number space under that FAC being allocated, the remaining numbers (up to 99,000,000) are not used. To address this issue the GISF group proposed a new, backwards compatible, structure.

Old IMEI Structure:

Bits 0-5 : old TAC (type approval code)

Bits 6-7 : FAC (factory allocation code)

Bits 8-14 : Serial number

New IMEI Structure:

Bits 0-7 : new TAC (type allocation code)

Bits 8-14 : Serial number

From Q2 2004 the full 8 digit TAC will be allocated with the unused numbers (those ending in 01 to 99) being allocated. The reason for this delay is to allow any systems searching on the TAC to have a reasonable time to be updated. Since a UE manufacturer has to request each block of 1 million numbers then the logistical change to operations of allocating a new TAC (rather than a FAC on an existing TAC) should be minimal.

Also, the TAC code is renamed "Type Allocation Code" since in many regions the allocation of the TAC is not now tied to type approval.

The changes to implement this were provided to SA1 which agreed to change 22.016 in which the structure is described. The CR to R99 22.016 is provided in document SP-020237 together with the resulting CR to Rel-4.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020237	22.016	007		R99	F	Type approval code	3.2.0	3.3.0	S1-021148
SP-16	SP-020237	22.016	008		Rel-4	A	Type approval code	4.0.0	4.1.0	S1-021149

3.3 Editorial corrections on 22.011, 22.034

With the deletion of 04.08, SA1 has undertaken a clean-up of its specifications to correct the references to all TSs and has normalised the terms used therein. This is a task that was started at the last SA meeting, and is continuing here. In this CR, the references have been changed where necessary.

The CR 22.011-046 is presented in SP-02238 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
----	----------	------	----	-----	-------	-----	---------	------	----------	-------------

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020238	22.011	046		Rel-4	F	Editorial corrections on 22.011	4.6.0	4.7.0	S1-021058

Also affected, is 22.034. Hence, SA1 is presenting CR 22.034-004 in document SP-02239 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020239	22.034	004		Rel-4	F	CR to 22.034 Correction of terminology and references	4.0.0	4.1.0	S1-020890

3.4 GPRS (22.060)

As part of the process mentioned in section 3.3, SA1 is proposing a number of changes to 22.060. It would appear that the UTRAN and GERAN terminology inconsistent with other Stage 1s. Also, there are some unused references and SA1 has taken the opportunity to correct these also.

The CR to Rel-4 and corresponding CR to Rel-5 is presented for approval in document SP-020240.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020240	22.060	024		Rel-4	F	Editorial Corrections to TS 22.060 (Rel-4)	4.3.0	4.4.0	S1-020990
SP-16	SP-020240	22.060	025		Rel-5	A	Editorial Corrections to TS 22.060 (Rel-5)	5.1.0	5.2.0	S1-020991

Also, it was identified that the Erasure feature does not exist in the GPRS Stage 2 and Stage 3. Hence, it was decided to delete this feature from Rel-4 and Rel-5. The CRs to do this are provided in document SP-020241.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020241	22.060	026		Rel-4	F	Removal of 'Erasure' from TS22.060 (Rel-4)	4.3.0	4.4.0	S1-020988
SP-16	SP-020241	22.060	027		Rel-5	A	Removal of 'Erasure' from TS22.060 (Rel-5)	5.1.0	5.2.0	S1-020989

3.6 Corrections on terminology (22.135)

As part of the ongoing process from the deletion of 04.08, SA1 has looked at 22.135 and is proposing a CR in document SP-020242 to correct the terminology and references.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020242	22.135	010		Rel-4	F	CR to 22.135 Corrections on terminology	4.0.0	4.1.0	S1-021077

4 Change Requests for Rel-5

The following CRs are for Release 5.

4.1 Definitions and Abbreviations (21.905)

At this meeting SA1 has one change request to 21.905 relating to references. However, in this instance, the change is to delete a reference to GSM 01.04 which has been discontinued. This change could see some stability to this TR, however, all groups are still requested to review 21.905 for incorrect Definitions and Abbreviations.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020243	21.905	038		Rel-5	F	CR to 21.905 5.3.0 - removal of obsolete reference	5.3.0	5.4.0	S1-020973

4.2 Correction of terminology and references (22.002)

The GERAN Iu mode uses the same Iu interface as UTRAN towards the Core Network while it will reuse the radio interface of GERAN A/Gb mode. Consequently service requirements for CS data in GERAN Iu mode need to be updated. This CR suggests updates as follows:

- GERAN Iu mode shall not support the data rates below 9.6 kbits/s and
- GERAN Iu mode shall not support the transparent data rates that are supported by GERAN A/Gb, but not by UTRAN.

The CR is presented in document SP-020244 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020244	22.002	014		Rel-5	F	CR to 22.002 Correction of terminology and references	4.2.0	4.3.0	S1-021076

4.3 Corrections on ASCII and Fax due to GERAN Iu mode (22.003)

SA1 is proposing one CR to 22.003 to clarify the support on GERAN Iu mode on ASCII and FAX. In the CR, the transparent facsimile services and Voice Group Services are being changed to apply to GERAN A/Gb mode of operation only.

The CR is presented in document SP-02245 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020245	22.003	012		Rel-5	F	CR to 22.003 Corrections on ASCII and Fax due to GERAN Iu mode	5.1.0	5.2.0	S1-020889

4.4 Correction usage of MExE application (22.057)

It was identified some time ago that there are some incorrect usages of MeXE application in 22.057 (LS from T2 and comment in SA). It was agreed that this should be made and so

SA1 has conducted a review of 22.057 to replace all occurrences of “MExE application” with “MExE executable”. The usage of the term applets is also removed, as this included in the MExE executable definition. Spelling corrections have also been made.

The CR to do this is provided in document SP-020246

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020246	22.057	010		Rel-5	F	CR to 22.057 on Correction usage of MExE application	5.3.0	5.4.0	S1-021057

4.5 CAMEL (22.078)

For some time now, SA1 has received updates from CN2 regarding the Information Tables in CAMEL. These tables contain the information which is sent by or shall be reported to the CSE respectively at various events. Rather than implement the last change, SA1 suggested to CN2 that the tables should be in the stage 2 TS.

CN2 has responded with a liaison statement indicating that the stage 2 includes all the information of 22.078 Annex A as well as the functional specification which ensures that the information is sent when appropriate and if available. The exception is for "Procedures for SMS" where there are no such tables. However the information is contained in the text itself of 23.078.

It has been agreed between SA1 and CN2, therefore, that the tables, and references to them, should be deleted. CR 22.078-144 to do this is presented in document SP-020247.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020247	22.078	144		Rel-5	F	Annex of Information Tables (A.1, A.2, A.3 and A.4) in 22.078	5.6.0	5.7.0	S1-021021

At the last meeting of SA1, a CR was provided to add clarifications concerning the definition of functional subsets of CAMEL Phase 4 (“Basic CS Call Handling” is a prerequisite for the “Charging Notification” subset). This was not agreed, but rather spurned two other CRs to do a similar thing. There was some substantial discussion over both of these CRs. It was resolved by choosing CR 22.078-146 being presented in document SP-020247. In SA1 it was indicated that if there was an objection to this CR, it should be voiced in SA.

The CR 22.078-146, amongst other things, removes from the list of functional subsets service requirements for the feature "enhancement of dialled services", which has been removed from the CAMEL Phase 4. SA1 also received CR 22.078-145 which does the same. These CRs overlap, but do not conflict. Based on the controversy with CR 146, it was decided that CR 145 should be put forward in case CR 146 is rejected. The CR is provided also in document SP-020247.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020247	22.078	145		Rel-5	F	Functional split in CAMEL4	5.6.0	5.7.0	S1-020923
SP-16	SP-020247	22.078	146		Rel-5	F	Functional Subsets of CAMEL Phase 4	5.6.0	5.7.0	S1-020948

The last CR to 22.078 relates to the removal of Charging Notification. TSG CN WG2 evaluated the current completeness of the charging notification feature in the CAMEL Phase 4 (Rel-5). It is most unlikely to complete the work on charging notification within the Release 5 timeframe. The work done so far shall be protected and the missing of Charging Notification realisation shall not threaten the finalisation of CAMEL 4 in Release 5 timeframe.

CR 22.078-147 is provided in document SP-020147 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020247	22.078	147		Rel-5	F	Removal of Charging Notification	5.5.0	5.6.0	S1-021179

4.6 Service aspects; Service principles (22.101 Rel-5)

CR 22.101-094 contains some proposed changes that were requested by SA #15 to clarify the text on ISIM/USIM. A note is added clarifying that the co-locating of ISIM and USIM in Rel'5 shall not preclude the possibility in later releases of having an ISIM in a UICC that does not contain a USIM (see also section 5.2).

CR 22.101-095 contains proposed changes to clean up the release 5 version of the specification. In this case, there are some SA1 requirements that have not been fulfilled in Rel 5 time frame and thus they need to be deleted.

The CRs are presented in document SP-020280 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020280	22.101	094		Rel-5	F	Clarifying note on ISIM/USIM	5.5.0	5.6.0	S1-020832
SP-16	SP-020280	22.101	095		Rel-5	F	Revised version of S1-021164 CR to 22.101 v5.5.0 on REL5 clean up	5.5.0	5.6.0	S1-021167

4.7 GERAN lu mode related updates (22.105)

SA1 has reviewed 22.105 in the light of GERAN lu mode and is proposing a clarification to support on GERAN lu mode on access dependent services. Similar in reasoning to the changes to 22.003, this CR defines the support of services in A/Gb mode of operation.

The CR is presented in document SP-020248 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020248	22.105	036		Rel-5	F	CR to 22.105 GERAN lu mode related updates	5.1.0	5.2.0	S1-020887

4.8 OSA (22.127)

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

The first, in CR 22.127-044 reduces the scope of OSA R5. In a review of the work plan for Release 5 during CN#15, the report from CN5 indicated a significant delay in certain requirements. Due to heavy workload within CN5, the requirements for Journalling,

Information Services User Data Management are unlikely to be completed by June 2002, the extension granted to CN5 by CN on Release 5 completion. This CRs removes these requirements for R5 to make the load on CN5 more manageable.

CR 22.127-045 is a CR in a similar vein to the one above regarding the removal of the feature "Retrieval of Visited Network Capabilities". In a recent review of the OSA stage 3 work undertaken jointly between SA1 and CN5 during the SA1 SWG meetings in April, the feature of *Retrieval of visited network capabilities* was not on the list targeted for completion by June 2002. This is the date that CN#15 granted CN5 to complete their work for Release 5. To date, Lucent has been the only contributor of this feature in stage 3 and SA1 feels that the current work is too immature to be completed for Release 5. In order to allow CN5 to focus on a smaller feature set with a higher degree of accuracy, SA1 proposes the postponement of the feature to Release 6.

CR 22.127-046 concerns a proposal for a more Flexible Event Notification mechanism. Provisioning of event triggers in the Home Environment. Currently OSA/Parlay applications have to explicitly request for event triggers and notifications in the network. This means that the ASP is responsible for provisioning. The assumption here is that the application has access to the list of users for which events may be triggered. However, in some cases this information is owned by the network operator.

The CR adds an option allowing that provisioning of triggers be explicitly done in the Home Environment (by the Network Operator) and that an application only has to indicate its availability and tell the SCS that it can receive event notifications. In this case, the service provider does not need to have access to the list of users to which the events are applicable. Hence, the CR makes it clear that there are two alternatives for supporting event notifications. Either the application can provision the appropriate event triggers directly through the SCS or the HE may provision the event triggers, in which case the application is just responsible for event handling. This gives the network operator more flexibility on how to handle event notifications.

CR 22.127-047 proposes the clarification of the terms used for the control of GPRS Sessions and IM Sessions. The Call Control Function is a generic OSA capability that applies to circuit switched calls, GPRS sessions and IM Sessions. The term "call" has traditionally been applied to circuit switched call where the term session is generally applied IP based connections (e.g. Packet Switched or IP multimedia). The purpose of this proposed change is to clarify the terminology used in this specification, including the renaming of the Call Control Function. No change in functionality is proposed.

Finally, CR 22.127-048 contains a CR to remove the presence service from Rel-5. During SA#15, the Presence Service work item was deleted from Release 5. 3GPP Presence Service will now be part of Release 6.

Support of Release 6 Presence Service, or requirements which may be misleadingly misinterpreted as being Release 6 Presence Service, are clarified to be consistent with the SA#15 decision.

The collection of CRs to 22.127 are presented in document SP-020249 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020249	22.127	044		Rel-5	F	Reduction of scope of OSA R5	5.3.0	5.4.0	S1-020868
SP-16	SP-020249	22.127	045		Rel-5	F	Proposal to remove feature "Retrieval of	5.3.0	5.4.0	S1-020903

							Visited Network Capabilities' from OSA Release 5'			
SP-16	SP-020249	22.127	046		Rel-5	F	A more Flexible Event Notification mechanism	5.3.0	5.4.0	S1-021059
SP-16	SP-020249	22.127	047		Rel-5	F	Clarifications of the terms used for the control of GPRS Sessions and IM Sessions	5.3.0	5.4.0	S1-020867
SP-16	SP-020249	22.127	048		Rel-5	F	Removal of Presence Service	5.3.0	5.4.0	S1-021171

4.9 Access rights in connected mode (22.129)

TS 22.129 concerns the requirements for handover in 3G. In SA1 it was noted that there is nothing in the TS that prevents handover to cells to which the UE does not have access rights. In order to remove inefficiency of attempted handovers that will be refused, SA1 is proposing CR 22.129-026 for approval in document SP-020250.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020250	22.129	026		Rel-5	F	CR to TS 22.129 on access rights in connected mode	5.1.0	5.2.0	S1-021093

4.10 Introduction of short codes for VASP addressing (22.140)

Document SP-020251 contains CR 22.140-016 to introduce short codes for VASP addressing. This feature is already defined in 23.140 5.2.0 without appropriate high level requirement in 22.140. This CR introduces the appropriate requirement.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020251	22.140	016		Rel-5	F	CR to 22.140 - Introduction of short codes for VASP addressing	5.1.0	5.2.0	S1-021073

4.11 Release 5 clean-up of IMS (22.228)

With the decision to phase the work of IMS, SA1 has identified those requirements which have not been fulfilled in Rel 5 time frame. The CR to delete them from Rel-5 is provided in document SP-020252 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020252	22.228	014		Rel-5	F	Revised version of S1-020824CR to 22.228 v5.5.0 on REL5 clean up	5.5.0	5.6.0	S1-021163

4.12 Service Requirements for UE Functionality Split (22.944)

The TR Service Requirements for UE Functionality Split (Release 5) was approved at SA#15. The following CRs relate to one outstanding item identified at the last meeting and a comment in SA regarding some editorial corrections.

CR 22.944-001 contains the editorial corrections to 22.944, whilst CR 22.944-002 relates to the introduction of ISIM requirements in the UEFS TR. Both are presented in document SP-020253 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
----	----------	------	----	-----	-------	-----	---------	------	----------	-------------

									Vers	Doc.No.
SP-16	SP-020253	22.944	001		Rel-5	F	Editorial Corrections to TR 22.944	5.0.0	5.1.0	S1-021134
SP-16	SP-020253	22.944	002		Rel-5	F	UICC in UE-split	5.0.0	5.1.0	S1-021132

5 Change Requests for Rel-6

The following sections contain CRs to release 6.

5.1 Location services (LCS) 22.071

CR 22.071-040 contains a proposed change to add a service requirement for Privacy control in HPLMN to ensure that the privacy settings are always up to date and to make it possible for the operator to ensure the privacy of own subscribers.

CR 22.071-041 contains a proposed change to enhance Codeword Requirements for LCS. In order to have flexible codeword settings, checking of the codeword should apply to each of the LCS Clients. In case of a specific service provided without codeword checking, e.g. an operator provided service where the operator acts as an LCS Client, codeword checking would not be required for that LCS Client.

The CRs are presented in document SP-020254 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020254	22.071	040		Rel-6	C	CR to TS 22.071 Rel-6 Privacy control in HPLMN	5.1.1	6.0.0	S1-020864
SP-16	SP-020254	22.071	041		Rel-6	C	Enhancement of Codeword Requirements for LCS	5.1.1	6.0.0	S1-020922

5.2 Service aspects; Service principles (22.101 Rel-6)

There are two CRs to 22.101 for release 6.

The first is an editorial to correct some references and to create a Rel-6 version.

The second contains some proposed changes to change the release 6 requirement for 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 allow the possibility of having an ISIM in a UICC that does not contain a USIM.

The CRs are presented in document SP-020255 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020255	22.101	096		Rel-6	D	CR to 22.101 v5.5.0 on Editorial for REL6 (rev 1)	5.5.0	6.0.0	S1-020848
SP-16	SP-020255	22.101	097		Rel-6	B	Release 6 ISIM requirement (Rev of 831)	5.5.0	6.0.0	S1-021063

5.3 OSA (22.127 Rel-6)

SA1 is presenting one CR to 22.127 for release 6 to add an IP session SCF. The IP session SCF allows applications to access information (read only) related to the IP

network sessions in progress between a UE and IP networks (i.e., the MSISDN and Session Correlation identifier) using the IP address of the UE.

It is presented in document SP-020256 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020256	22.127	049		Rel-6	B	Access to IP Session Information	5.3.0	6.0.0	S1-021060

5.4 Multimedia Broadcast/Multicast Service (22.146 Rel-6)

There are two CRs from SA1 relating to MBMS for Rel-6. Both of these are indirectly as a result of the MBMS workshop held just prior to SA1 as a result of SA #15.

The first is a proposed CR on Multicast Joining Outside the Multicast Area. The current specification is silent on whether or not multicast groups may be joined or left while the user is outside the multicast area. Since a user can join a multicast group and then exit the multicast area while remaining a multicast group member it should also be possible for users to join a multicast group outside the multicast area. Likewise, users leaving the multicast area should be able to leave a multicast group which they have previously joined.

The second contains a proposed CR to clarify the requirement related to paging messages. TS 22.146 contains the requirement, that users shall be able to receive paging messages while receiving one or more broadcast services. However, it is nowhere explained what is meant with "paging messages".

The CRs are presented in SP-020257 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020257	22.146	031		Rel-6	C	Proposed CR on Multicast Joining Outside the Multicast Area	5.2.0	6.0.0	S1-020892
SP-16	SP-020257	22.146	032		Rel-6	F	CR to 22.146: Clarification of requirement related to paging messages	5.2.0	6.0.0	S1-021180

5.5 IMS (22.228 Rel-6)

There are two CRs from SA1 to the IMS TS for release 6.

Similarly to the change to 22.101 in section 5.2, the first CR clarifies the release 6 requirements for ISIM. For Release 6 it is proposed to allow the possibility of having an ISIM in a UICC that does not contain a USIM.

The second CR is editorial to correct some references and to create a release 6 version.

The are presented in document SP-020258 for approval.

SA	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc.No.
SP-16	SP-020258	22.228	015		Rel-6	B	Release 6 ISIM requirement	5.5.0	6.0.0	S1-021062
SP-16	SP-020258	22.228	016		Rel-6	D	CR to 22.228 v5.5.0 on Editorial for REL6	5.5.0	6.0.0	S1-021162

6 New TSs/TRs

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

6.1 PUSH stage 1 (22.174 V1.0.0)

The PUSH stage 1, 22.174, is now ready to be presented for information to SA #16. There are some outstanding issues that need to be resolved, but since there are no contentious issues at this time, this is not thought to be a problem. However, SA1 is keen to get a wider audience for this stage 1 and so it is presented as a liaison statement to SA and to SA2, SA3, SA5 and T2 for information in document SP-020230.

6.2 Speech Enabled services (22.977 V1.0.)

The new TR 22.977 on Feasibility study for speech enabled services (Release 6) is also being made available for information. SA1 does not perceive any contentious or outstanding issues on this for the time being, but would welcome some feedback from other groups.

It is presented in document SP-020259 for information.

6.3 Priority Service Feasibility Study Report (22.950 V2.0.0)

At SA #15, SA1 presented 22.950 for information. Since then, the TR has stabilised and, despite a few outstanding issues, SA1 would like to present it as version 2.0.0 for approval for Release 6.

The document, together with the outstanding issues, is presented in document SP-020260 for approval.

As also mentioned in section 2, SA1 has received a draft new Question Q. ets/16 on Emergency Telecommunications Service (ETS) from Study group 16 of the ITU. A response has been elaborated in document SP-020229 (see section 2).

6.4 Digital Rights Management (22.242 V2.0.0)

Also being presented for approval is the stage 1 for Digital Rights Management in 22.242. The work since last meeting relates to a class 1 DRM, Charging and some various editorial updates.

It is presented for approval in document SP-020261.

7 WIs from SA1

There are a number of WIDs being put forward by SA1 for approval.

7.1 Updated WIs from SA1

7.1.1 Speech recognition framework

Document SP-0200262 contains an update of the Speech Recognition Framework WI. This document updates the original work item on Speech Enabled Services Based on Distributed Speech Recognition (DSR) (SP-010581).

A summary of the changes are:

- Release targeted by the work item has been changed to fit the work plan for

completion in Q1 2003.

- The scope has been broadened from DSR services to Speech recognition framework that can rely on conventional codecs as well as DSR optimized codecs.

It is presented in document SP-020262 for approval.

7.1.2 Updated Presence Service WID

With the move of Presence from Rel-5, SA1 is providing an updated version of the Presence Service WID is also being proposed. The changes are:

- Change of title.
- Inclusion of linked WIs.
- Updated work plan schedule for completion
- Change of rapporteur.
- Addition of supporting companies.

The WI with change bars, is presented in document SP-0200263 for approval.

7.2 New WIs from SA1

7.2.1 Location services enhancements (Release 6)

Document SP-020264 contains a proposed WID 'Service enhancements of Location Services'. This Work Item is proposed in accordance with the discussions on location services in SA plenary in March 2002. The work item is needed in order to enhance the service aspects of location services. Also the relationships between privacy functions in LCS, Presence and other services are covered.

It should be noted that this complements the WI being presented by SA2 for approval.

7.2.2 IMS enhancements (Release 6)

In Release 5, the IMS was defined to support IP Multimedia services. The feature set in Release 5 provides a basis for IP Multimedia support. Some capabilities already identified were not completed as part of Release 5 and the need for other new capabilities is being identified. Hence there is a need to consider the new capabilities needed for the support of IP Multimedia in order to enhance the capabilities available to operators.

The WI for Rel-6 is provided for approval in document SP-020265.

7.2.3 Push Service for (Release 6)

SA1 is proposing a new WID covering the Push Service for Release 6. The work started on the Push Service in Cape Town (SA1 #11), originally prompted by the Push feasibility study work going on in SA2. The SA2 push service work has now stopped pending the outcome of the SA1 push service work.

This WID clarifies the position of the Push Service as a feature.

There is a need to define the requirements for a Push Service within 3GPP SA1 in order that it may provide the basis (service capability) for a variety of other services. The substance of existing push capability and service requirements defined in 3GPP or other bodies will be investigated by SA1 in defining the 3GPP SA1 push service requirements.

It is presented in document SP-0200266 for approval.

8 Other Issues

8.1 Release 4 to release 5

At SA #15, release 5 was functionally frozen. Normally, at that time, each SWG needs to identify which TS should be brought over from the earlier release if the TSs did not already exist. This was delayed by one meeting and so now SA1 is presenting a proposal of which TSs and TRs need to be brought from Rel-4 to Rel-5. This proposal is presented for approval in document SP-020267.

8.2 VHE

The Virtual Home Environment (VHE) TS 22.121 has been stable for some time now. However, at the last meeting of SA1, a proposed CR was received to remove the detailed user profile requirements.

The justification for the CR was that VHE/OSA stage 2 specification TS 23.127 for Rel5 does not specify any architecture for the VHE User Profile. VHE User Profile requirements are expected to be covered by the 3GPP Generic User Profile (GUP), but only in future 3GPP releases. Detailed VHE user profile requirements in clause 7 are replaced by a note referring to the introduction of the 3GPP Generic User Profile (GUP) in future 3GPP releases. Also elsewhere in the specification detailed requirements to User Profile have been removed, or replaced by more generic expressions on user related data. Additionally a number of editorial corrections has been made throughout the specification to improve the quality of the text.

It was commented in SA1 that the main reason for change is alignment between stage 1 and stage 2. Furthermore, it was reported that the main reason that the stage 1 is being changed is because there is no work on the stage 2, since more work is being done on GUP. It was further questioned that if the CR is approved, there is no reason to have the stage 1.

After some discussion on the issue during the meeting and offline, it was decided that the most appropriate action would be to turn 22.121 into a TR.

It was agreed in SA1 that this course of action should be proposed to SA.

8.3 Presence

There are no CRs to the Presence Stage 1 TS 22.141 being presented at this meeting from SA1. However, based on the decision in SA #15 that Presence should be a Rel-6 feature, it is necessary that the release 5 TS be deleted and replaced by a release 6 version.

However, prior to ratifying this decision, SA should note that the reason for the change of release was that there was no stage 2 or three in Rel-5 and now SA2 is putting forward the stage 2 for approval for Rel-5.

9 Meetings of SA1

9.1 Meetings since last SA

The following meetings have been held since SA #15.

Meeting	Date	Place	Host
GUP	15-18th Jan 2001,	Sophia Antipolis, France	ETSI
OSA#10	15-18th Jan 2001,	Sophia Antipolis, France	ETSI
IMS	15-18th Jan 2001,	Sophia Antipolis, France	ETSI
Ntwk Sharing	15-18th Jan 2001,	Sophia Antipolis, France	ETSI
SES	15-18th Jan 2001,	Sophia Antipolis, France	ETSI
WLAN	15-18th Jan 2001,	Sophia Antipolis, France	ETSI
PUSH	15-18th Jan 2001,	Sophia Antipolis, France	ETSI
LCS	15-18th Jan 2001,	Sophia Antipolis, France	ETSI
Messaging	15-18th Jan 2001,	Sophia Antipolis, France	ETSI
Presence	15-18th Jan 2001,	Sophia Antipolis, France	ETSI
DRM	15-18th Jan 2001,	Sophia Antipolis, France	ETSI
UE Funct Split	15-18th Jan 2001,	Sophia Antipolis, France	ETSI
S1#16	13-17th May 2002,	Victoria, Canada	AT&T and Rogers Wireless

9.2 Planned meetings

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

SA1 Plenary

SA1#17	12 – 16 August 2002,	Durango, Colorado, USA hosted by SBC
SA1#18	11 – 15 November 2002,	Seoul, 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	3 -7 November 2003,	Asia, hosted by NEC (or Japanese friends of 3GPP)

SA1 SWGs

SA1 SWGs	8-12 July 2002,	Italy (location tba) hosted by TIM
SA1 SWGs	14-18 October 2002,	Taiwan, co-located with SA2
SA1 SWGs	20-24 January 2003,	Phoenix, USA, hosted by AWS with SA2
SA1 SWGs	7-11 April 2003,	Offer from Lucent
SA1 SWGs	7-11 July 2003,	Offer from European Friends of 3GPP
SA1 SWGs	13-17 October 2003,	Offer from North American Friends of 3GPP

Annex 1: Documents provided to this Plenary

Tdoc	Title	Agenda
SP-020234	Presentation of SA1 to SA #15	7.1.1
SP-020235	Status report of SA1 to SA #15	7.1.1
SP-020236	Release 99/4/5 CRs to 22.004 on Correction of table 3.2	7.1.3
SP-020237	Release 99/4 CRs to 22.016 on Type approval code	7.1.3
SP-020238	Rel- 4 CR on Editorial corrections to 22.011	7.1.3
SP-020239	Rel-4 CR to 22.034 Correction of terminology and references	7.1.3
SP-020240	Rel-4/Rel-5 to 22.060 with Editorial Corrections	7.1.3
SP-020241	Rel-4/Rel-5 to 22.060 on Removal of 'Erasure'	7.1.3
SP-020242	Rel-4 CR to 22.135 Corrections on terminology	7.1.3
SP-020243	Rel-5 CR to 21.905 on removal of obsolete reference	7.1.3
SP-020244	Rel-5 CR to 22.002 Correction of terminology and references	7.1.3
SP-020245	Rel-5 CR to 22.003 on Corrections on ASCI and Fax due to GERAN lu mode	7.1.3
SP-020246	Rel-5 CR to 22.057 on Correction usage of MExE application	7.1.3
SP-020247	Various Rel-5 CRs to 22.078 on CAMEL	7.1.3
SP-020280	Various Rel-5 CRs to 22.101 on Service principles	7.1.3
SP-020248	Rel CR to 22.105 GERAN lu mode related updates	7.1.3
SP-020249	Various Rel-5 CRs to 22.127 on OSA	7.1.3
SP-020250	Rel-5 CR to TS 22.129 on access rights in connected mode	7.1.3
SP-020251	Rel-5 CR to 22.140 - Introduction of short codes for VASP addressing	7.1.3
SP-020252	Rel-5 CR to 22.228 v5.5.0 on REL5 clean up	7.1.3
SP-020253	Various Rel-5 CRs to 22.944 on Service Requirements for UE Functionality Split	7.1.3
SP-020254	Various Rel-6 CRs to 22.071 on Location Services	7.1.3
SP-020255	Various Rel-6 CRs to 22.101 on Service principles	7.1.3
SP-020256	Rel-6 CR to 22.127 on Access to IP Session Information	7.1.3
SP-020257	Various Rel-6 CRs to 22.146 on MBMS	7.1.3
SP-020258	Various Rel-6 CRs to 22.228 on Service requirements for the IP Multimedia Core Network Subsystem	7.1.3

SP-020230	LS to SA: draft Push stage 1 for information (TR 22.174, Version 1.0.0)	7.1.3
SP-020259	TR 22.977, Version 1.0.0 for Speech Enabled Services for information	7.1.3
SP-020260	TR 22.950, Version 2.0.0 Priority Service Feasibility Study Report for approval	7.1.3
SP-020261	TS 22.242, Version 2.0.0 Digital Rights Management for approval	7.1.3
SP-020262	Updated WID on speech recognition framework	7.1.3
SP-020263	Updated Presence Service WID	7.1.3
SP-020264	WI for Location services enhancements (Release 6)	7.1.3
SP-020265	WI for IMS enhancements (Release 6)	7.1.3
SP-020266	WI for the Push Service for (Release 6)	7.1.3
SP-020267	Status of Rel-4 to Rel-5 TSs and TRs under SA1 control	7.1.3
SP-020229	SA1's position on priority services	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-16	SP-020243	21.905	038		Rel-5	F	CR to 21.905 5.3.0 - removal of obsolete reference	5.3.0	5.4.0	S1-020973
SP-16	SP-020244	22.002	014		Rel-5	F	CR to 22.002 Correction of terminology and references	4.2.0	5.0.0	S1-021076
SP-16	SP-020245	22.003	012		Rel-5	F	CR to 22.003 Corrections on ASCII and Fax due to GERAN lu mode	5.1.0	5.2.0	S1-020889
SP-16	SP-020236	22.004	007		R99	F	Correction of table 3.2 of TS22.004	3.2.1	3.3.0	S1-020981
SP-16	SP-020236	22.004	008		Rel-4	A	Correction to Table 3.2 (rel-4)	4.1.0	4.2.0	S1-020985
SP-16	SP-020236	22.004	009		Rel-5	A	Correction of Table 3.2 (rel-5)	4.1.0	5.0.0	S1-020987
SP-16	SP-020238	22.011	046		Rel-4	F	Editorial corrections on 22.011	4.6.0	4.7.0	S1-021058
SP-16	SP-020237	22.016	007		R99	F	Type approval code	3.2.0	3.3.0	S1-021148
SP-16	SP-020237	22.016	008		Rel-4	A	Type approval code	4.0.0	4.1.0	S1-021149
SP-16	SP-020239	22.034	004		Rel-4	F	CR to 22.034 Correction of terminology and references	4.0.0	4.1.0	S1-020890
SP-16	SP-020246	22.057	010		Rel-5	F	CR to 22.057 on Correction usage of MExE application	5.3.0	5.4.0	S1-021057
SP-16	SP-020240	22.060	024		Rel-4	F	Editorial Corrections to TS 22.060 (Rel-4)	4.3.0	4.4.0	S1-020990
SP-16	SP-020240	22.060	025		Rel-5	A	Editorial Corrections to TS 22.060 (Rel-5)	5.1.0	5.2.0	S1-020991
SP-16	SP-020241	22.060	026		Rel-4	F	Removal of 'Erasure' from TS22.060 (Rel-4)	4.3.0	4.4.0	S1-020988
SP-16	SP-020241	22.060	027		Rel-5	A	Removal of 'Erasure' from TS22.060 (Rel-5)	5.1.0	5.2.0	S1-020989
SP-16	SP-020254	22.071	040		Rel-6	C	CR to TS 22.071 Rel-6 Privacy control in HPLMN	5.1.1	6.0.0	S1-020864
SP-16	SP-020254	22.071	041		Rel-6	C	Enhancement of Codeword Requirements for LCS	5.1.1	6.0.0	S1-020922
SP-16	SP-020247	22.078	144		Rel-5	F	Annex of Information Tables (A.1, A.2, A.3 and A.4) in 22.078	5.6.0	5.7.0	S1-021021
SP-16	SP-020247	22.078	145		Rel-5	F	Functional split in CAMEL4	5.6.0	5.7.0	S1-020923
SP-16	SP-020247	22.078	146		Rel-5	F	Functional Subsets of CAMEL Phase 4	5.6.0	5.7.0	S1-020948
SP-16	SP-020247	22.078	147		Rel-5	F	Removal of Charging Notification	5.5.0	5.6.0	S1-021179
SP-16	SP-020280	22.101	094		Rel-5	F	Clarifying note on ISIM/USIM	5.5.0	5.6.0	S1-020832
SP-16	SP-020280	22.101	095		Rel-5	F	CR to 22.101 v5.5.0 on REL5 clean up	5.5.0	5.6.0	S1-021167
SP-16	SP-020255	22.101	096		Rel-6	D	CR to 22.101 v5.5.0 on Editorial for REL6	5.5.0	6.0.0	S1-020848

SP-16	SP-020255	22.101	097		Rel-6	B	Release 6 ISIM requirement	5.5.0	6.0.0	S1-021063
SP-16	SP-020248	22.105	036		Rel-5	F	CR to 22.105 GERAN lu mode related updates	5.1.0	5.2.0	S1-020887
SP-16	SP-020249	22.127	044		Rel-5	F	Reduction of scope of OSA R5	5.3.0	5.4.0	S1-020868
SP-16	SP-020249	22.127	045		Rel-5	F	Proposal to remove feature 'Retrieval of Visited Network Capabilities' from OSA Release 5'	5.3.0	5.4.0	S1-020903
SP-16	SP-020249	22.127	046		Rel-5	F	A more Flexible Event Notification mechanism	5.3.0	5.4.0	S1-021059
SP-16	SP-020249	22.127	047		Rel-5	F	Clarifications of the terms used for the control of GPRS Sessions and IM Sessions	5.3.0	5.4.0	S1-020867
SP-16	SP-020249	22.127	048		Rel-5	F	Removal of Presence Service	5.3.0	5.4.0	S1-021171
SP-16	SP-020256	22.127	049		Rel-6	B	Access to IP Session Information	5.3.0	6.0.0	S1-021060
SP-16	SP-020250	22.129	026		Rel-5	F	CR to TS 22.129 on access rights in connected mode	5.1.0	5.2.0	S1-021093
SP-16	SP-020242	22.135	010		Rel-4	F	CR to 22.135 Corrections on terminology	4.0.0	4.1.0	S1-021077
SP-16	SP-020251	22.140	016		Rel-5	F	CR to 22.140 - Introduction of short codes for VASP addressing	5.1.0	5.2.0	S1-021073
SP-16	SP-020257	22.146	031		Rel-6	C	Proposed CR on Multicast Joining Outside the Multicast Area	5.2.0	6.0.0	S1-020892
SP-16	SP-020257	22.146	032		Rel-6	F	CR to 22.146: Clarification of requirement related to paging messages	5.2.0	6.0.0	S1-021180
SP-16	SP-020252	22.228	014		Rel-5	F	CR to 22.228 v5.5.0 on REL5 clean up	5.5.0	5.6.0	S1-021163
SP-16	SP-020258	22.228	015		Rel-6	B	Release 6 ISIM requirement	5.5.0	6.0.0	S1-021062
SP-16	SP-020258	22.228	016		Rel-6	D	Revised version of S1-020846CR to 22.228 v5.5.0 on Editorial for REL6	5.5.0	6.0.0	S1-021162
SP-16	SP-020253	22.944	001		Rel-5	F	Editorial Corrections to TR 22.944	5.0.0	5.1.0	S1-021134
SP-16	SP-020253	22.944	002		Rel-5	F	UICC in UE-split	5.0.0	5.1.0	S1-021132

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
TS	02.06	Types of Mobile Stations (MS)	Ph1-DCS	3.2.0
TS	02.06	Types of Mobile Stations (MS)	Ph2	4.5.2
TS	02.06	Types of Mobile Stations (MS)	R96	5.2.1
TS	02.06	Types of Mobile Stations (MS)	R97	6.1.1
TS	02.06	Types of Mobile Stations (MS)	R98	7.0.1
TS	02.07	Mobile Station (MS) Features	Ph1	3.4.1
TS	02.07	Mobile Station (MS) Features	Ph2	4.8.2
TS	02.07	Mobile Station (MS) Features	R96	5.4.1
TS	02.07	Mobile Station (MS) Features	R97	6.2.0
TS	02.07	Mobile Station (MS) Features	R98	7.1.0
TS	02.11	Service Accessibility	Ph1	3.7.0
TS	02.11	Service Accessibility	Ph1-DCS	3.1.0
TS	02.11	Service Accessibility	Ph2	4.9.0
TS	02.11	Service Accessibility	R96	5.0.1
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
TS	02.16	International Mobile Station Equipment Identities (IMEI)	R98	7.2.0
TS	02.20	Collection charges	Ph1	3.0.1
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
TS	02.22	Stage 1 for personalisation of GSM ME	R98	7.0.0
TS	02.24	Description of Charge Advice Information (CAI)	Ph2	4.5.0
TS	02.24	Description of Charge Advice Information (CAI)	R96	5.0.1
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
TS	02.30	Man-machine Interface (MMI) of the Mobile Station (MS)	Ph2	4.13.0

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
TS	02.34	High Speed Circuit Switched Data (HSCSD); Stage 1	R96	5.2.1
TS	02.34	High Speed Circuit Switched Data (HSCSD); Stage 1	R97	6.0.0
TS	02.34	High Speed Circuit Switched Data (HSCSD); Stage 1	R98	7.0.0
TS	02.40	Procedures for Call Progress Indications	Ph1	3.2.0
TS	02.40	Procedures for Call Progress Indications	Ph2	4.5.0
TS	02.40	Procedures for Call Progress Indications	R96	5.0.0
TS	02.40	Procedures for Call Progress Indications	R97	6.0.0
TS	02.40	Procedures for Call Progress Indications	R98	7.0.1
TS	02.41	Operator Determined Barring	Ph2	4.5.2
TS	02.41	Operator Determined Barring	R96	5.1.1
TS	02.41	Operator Determined Barring	R97	6.0.0
TS	02.41	Operator Determined Barring	R98	7.0.0
TS	02.42	Network Identity and Timezone (NITZ); Service Description, Stage 1	R96	5.1.0
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
TS	02.57	Mobile Station Application Execution Environment (MExE) Service description Stage 1	R98	7.1.0
TS	02.60	General Packet Radio Service Stage 1 Description	R97	6.3.1
TS	02.60	General Packet Radio Service Stage 1 Description	R98	7.5.0
TS	02.63	Packet Data on Signalling channels Service (PDS); Stage 1	R96	5.0.0
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
TS	02.67	Enhanced Multi-Level Precedence and Pre-emption Service (eMLPP); Stage 1	R96	5.1.1

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
TS	02.69	Voice Broadcast Service (VBS); Stage 1	R98	7.0.2
TS	02.69	Voice Broadcast Service (VBS); Stage 1	R99	8.1.0
TS	02.71	Location Services (LCS); Stage 1	R98	7.3.0
TS	02.72	Call Deflection Service description, Stage 1	R98	7.2.1
TS	02.78	Customized Applications for Mobile network Enhanced Logic (CAMEL); Service definition (Stage 1)	R96	5.6.0
TS	02.78	Customized Applications for Mobile network Enhanced Logic (CAMEL); Service definition (Stage 1)	R97	6.6.1
TS	02.78	Customized Applications for Mobile network Enhanced Logic (CAMEL); Service definition (Stage 1)	R98	7.2.0
TS	02.79	Support of Optimal Routeing (SOR); Service definition (Stage 1)	R96	5.2.0
TS	02.79	Support of Optimal Routeing (SOR); Service definition (Stage 1)	R97	6.0.0
TS	02.79	Support of Optimal Routeing (SOR); Service definition (Stage 1)	R98	7.0.0
TS	02.81	Line Identification Supplementary Services; Stage 1	Ph2	4.6.1
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
TS	02.84	MultiParty (MPTY) Supplementary Services; Stage 1	R96	5.0.0
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	Stage 1 Decision of Unstructured Supplementary Service Data (USSD)	Ph2	4.1.1
TS	02.90	Stage 1 Decision of Unstructured Supplementary Service Data (USSD)	R96	5.1.0
TS	02.90	Stage 1 Decision of Unstructured Supplementary Service Data (USSD)	R97	6.0.0
TS	02.90	Stage 1 Decision of Unstructured Supplementary Service Data (USSD)	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 Subscriber (CCBS) Service Description; Stage 1	R97	6.0.1
TS	02.93	Completion of Calls to Busy Subscriber (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
TR	21.905	Vocabulary for 3GPP Specifications	Rel-4	4.4.0
TR	21.905	Vocabulary for 3GPP Specifications	Rel-5	5.3.0
TS	22.001	Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN)	R99	3.2.0
TS	22.001	Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN)	Rel-4	4.3.0
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	22.003	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	5.1.0
TS	22.004	General on Supplementary Services	R99	3.2.1
TS	22.004	General on Supplementary Services	Rel-4	4.1.0
TS	22.011	Service accessibility	R99	3.7.0
TS	22.011	Service accessibility	Rel-4	4.6.0
TS	22.016	International Mobile Equipment Identities (IMEI)	R99	3.2.0
TS	22.016	International Mobile Equipment Identities (IMEI)	Rel-4	4.1.0
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	22.030	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	22.034	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	4.0.0
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	22.042	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	22.057	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	5.3.1
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	4.3.0
TS	22.060	General Packet Radio Service (GPRS); Service description; Stage 1	Rel-5	5.1.0
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	22.067	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	22.071	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	22.072	Call Deflection (CD); Stage 1	R99	3.0.1
TS	22.072	Call Deflection (CD); Stage 1	Rel-4	4.0.0
TS	22.078	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	5.6.0
TS	22.079	Support of optimal routing; Stage 1	R99	3.0.1
TS	22.079	Support of optimal routing; Stage 1	Rel-4	4.0.0
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	22.082	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	22.083	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	22.084	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	22.085	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	22.086	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	22.087	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	22.088	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	22.090	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	22.091	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	22.093	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	22.094	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	22.096	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	22.097	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	22.100	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	5.5.0
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	5.1.0
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
TS	22.121	Service aspects; The Virtual Home Environment; Stage 1	R99	3.3.0
TS	22.121	Service aspects; The Virtual Home Environment; Stage 1	Rel-4	4.1.0
TS	22.121	Service aspects; The Virtual Home Environment; Stage 1	Rel-5	5.3.0
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	5.3.0
TS	22.127	Service Requirement for the Open Services Access (OSA); Stage 1	Rel-6	none
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	5.1.0
TS	22.135	Multicall; Service description; Stage 1	R99	3.4.0
TS	22.135	Multicall; Service description; Stage 1	Rel-4	4.1.0
TS	22.140	Service aspects; Stage 1; Multimedia Messaging Service	R99	3.1.0
TS	22.140	Service aspects; Stage 1; Multimedia Messaging Service	Rel-4	4.2.0
TS	22.140	Service aspects; Stage 1; Multimedia Messaging Service	Rel-5	5.1.0
TS	22.141	Presence service; Stage 1	Rel-5	5.2.0
TS	22.141	Presence service; Stage 1	Rel-6	none
TS	22.146	Multimedia Broadcast/Multicast Service (MBMS); Stage 1	Rel-5 (?)	5.2.0
TS	22.174	Push service; Stage 1	Rel-6	0.6.0
TS	22.177	Speech-enabled services; Stage 1	Rel-6	none
TS	22.226	Global text telephony; Stage 1: Service description	Rel-5	5.2.0
TS	22.228	Service requirements for the IP multimedia core network subsystem; Stage 1	Rel-5	5.5.0
TS	22.233	Transparent end-to-end packet-switched streaming 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	1.0.0
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 Wireless Local Area Network (WLAN) interworking	Rel-6	1.0.0
TR	22.940	IP Multimedia Subsystem (IMS) messaging; Stage 1	Rel-6	0.0.0
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	5.0.0
TR	22.950	Priority service feasibility study	Rel-6	1.0.0
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	none
TR	23.934	3GPP system to Wireless Local Area Network (WLAN) interworking; Functional and architectural definition	Rel-6	0.1.0
TS	42.043	Support of Localised Service Area (SoLSA); Service description; Stage 1	Rel-4	4.0.0
TS	42.056	GSM Cordless Telephony System (CTS), Phase 1; Service description; Stage 1	Rel-4	4.0.0
TS	42.068	Voice Group Call Service (VGCS); Stage 1	Rel-4	4.1.0
TS	42.069	Voice Broadcast Service (VBS); Stage 1	Rel-4	4.1.0