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

The TSG_SA_WG1#24 Plenary Meeting was held in Shenzhen, China from the 10th to 14th May 2004. It was chaired by Mr Michele Zarri (T-Mobile) and the secretary was Mr Michael Clayton from the MCC. The host was ZTE.

2 External Liaisons

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

Document Number	Title	To	Copy	Sent
S1-040483	LS on Network Protection against Virus Infected Mobiles	SA2, CN1	SA3, OMA TP, OMA Req	13/05/2004
S1-040534	Reply to LS on WLAN Charging Identifiers	CN4, SA2	GSMA CPWP BARG, SA5	17/05/2004
S1-040444	Response to LS on PLMN selection and background scan	TSG-CN	TSG-SA, CN1, GERAN1, RAN2	17/05/2004
S1-040488	Reply to: CEPT/ECC consultation on use of short codes	TSG SA		17/05/2004

Document SP-040234 (S1-040488) contains a liaison statement from SA1 regarding the use of short codes. This is in response to a Consultation Paper from CEPT on harmonisation of short codes. In summary, the view of SA1 is similar to that of T2 in that, whilst there are obvious advantages to some parties to attempt to harmonise these mobile short code numbers, the facts on the ground dictate against such a proposal. The liaison statement from SA1 to SA is asking for a response to be provided by SA.

3 Change Requests for R99

There are no CRs for R99.

4 Change Requests for Rel-4

The following CRs are for Release 4.

4.1 SS applicability to Voice Group Services (22.004)

The Table A.1 - "Applicability of SSs to telecommunication services" in 22.004 incorrectly lists several supplementary services as having applicability to Voice Group Services.

This is incorrect sine dispatchers in a VBS/VGCS call do not use the VBS/VGCS teleservice. Only VBS/VGCS service subscribers use VBS/VGCS teleservice. Dispatchers for VBS/VGCS calls are generic telephony users, and can be defined as PABX, ISUP trunks, or any other type of user. In the event a dispatcher is a GSM subscriber, the VBS/VGCS call will be originated by or terminated to that subscriber using TELEPHONY teleservice only, as described in 24.008. The VBS/VGCS teleservices as defined in 44.068 and 44.069 do not govern origination/termination protocols of dispatchers.

Hence, the interactions listed in the Telephony column are sufficient.

The CRs for Rel-4, and Rel-5 are provided in document SP-040283 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040283	22.004	010	-	Rel-4	F	Modification of table A1 required to remove	4.2.0	4.3.0	S1-040498

							wrong SS applicability to VG Services			
SP-24	SP-040283	22.004	011	-	Rel-5	A	Modification of table A1 required to remove wrong SS applicability to VG Services	5.0.0	5.1.0	S1-040499

5 Change Requests for Rel-5

The following sections contain CRs to release 5.

6.1 CAMEL (22.078)

SA1 has received a number of CRs requested from CN2.

6.1.1 SCUDIF corrections for CAMEL interworking

It is proposed by CN2, that CSE/SCP may create legs only when the call is known to be a speech call. In addition, the user interaction also needs to be defined. In a multimedia phase or under uncertaintity UI shall not be connected. CAMEL warning tone and flexiple warning to can be ordered in ApplyCharging for a SCUDIF call. If the multimedia is used at the time when the tone timer expires then SSP shall not connect the tone.

The CRs to 22.078-171/172 are provided in document SP-040284 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040284	22.078	171	-	Rel-5	F	SCUDIF corrections for CAMEL interworking	5.13.0	5.14.0	S1-040509
SP-24	SP-040284	22.078	172	-	Rel-6	A	SCUDIF corrections for CAMEL interworking	6.4.0	6.5.0	S1-040510

6.1.2 Preconditions for connecting a held party to the group

The other CR was provided by CN2 to correct preconditions for connecting a held party to the group. In CN2 #30 a refinement was agreed on the pre-conditions of MoveLeg (refer to TS 29.078, section 11.22.2.1, condition (3), bullet 2). MoveLeg is allowed also at trigger detection point. The rationale for this change was that otherwise it is impossible to get original BCSM into active state. The CN2 introduced change corrected a chicken and egg problem: MoveLeg is possible at alerting or active phase, but the original BCSM does not get there unless an outgoing leg is moved to that call segment.

However, the new functionality makes it possible to introduce “forking” type of services; i.e. the following service is enabled:

- Call triggers at DP2 or DP12.
- SCP sends DisconnectLeg(Leg2)
- SCP sends multiple InitiateCallAttempts (followed by other necessary operations, such as ContinueWithArgument, RRB etc)

Once a ICA leg answers, he/she is moved to call segment 1 (group). Currently MoveLeg is not allowed in Stage 1 because of the precondition.

It was noted in SA1 that this would appear to be a new requirement for Rel-5. However, it was also noted that the reason it is for Rel-5 was probably to avoid having a CAMEL phase5.

The CRs 22.078-173/174 are presented for approval in document SP-040285.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040285	22.078	173	-	Rel-5	F	Correction to preconditions for connecting a held party to the group	5.13.0	5.14.0	S1-040511
SP-24	SP-040285	22.078	174	-	Rel-6	A	Correction to preconditions for connecting a held party to the group	6.4.0	6.5.0	S1-040512

6 Change Requests for Rel-6

The following sections contain CRs to release 6.

6.1 Access Network Provider (21.905)

SA1 has received a liaison statement from SA3 regarding the term Access Network Provider. The 3GPP SA3 LI working group uses the term “Access Network Provider” to describe the service provider of the access network. Therefore, the acronym ANP should be used as the acronym AN (Access Network) does not provide the true meaning of what we wish to convey.

Also, as part of the work on WLAN SA1 need to add the definition of WLAN UE class to TS 21.905.

Therefore, CRs 21-905-057 and 21-905-058 are presented in document SP-040286 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040286	21.905	057	-	Rel-6	F	Inclusion of ANP abbreviation as requested by SA3	6.6.0	6.7.0	S1-040507
SP-24	SP-040286	21.905	058	-	Rel-6	F	TR 21.905 Addition WLAN UE definition and classes of equipment and abbreviation	6.6.0	6.7.0	S1-040529

6.2 PLMN selection and background scan (22.011)

At the last meeting of SA, the subject of background scans, PLMN selection and the use of RAT was brought up. At SA it was agreed that the RAT is to be used in the background scan. This decision however is likely to cause undesired "side effects" and CN1 was expected to inform SA1 on what they are (e.g. effects on ePLMN, ping-pong between RATs...).

SA1 has received the comprehensive liaison statement from CN1 and has dealt with each issue separately.

Document SP-040233 contains a liaison statement from SA1 on PLMN selection and background scan. The liaison statement lists the CRs coming from SA1 on this subject.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040287	22.011	058	-	Rel-6	F	Behavior of Single Mode mobiles with regards to the use of access technology in the PLMN selector lists	6.3.0	6.4.0	S1-040438
SP-24	SP-040287	22.011	059	-	Rel-6	F	Identification of FDD and TDD in the PLMN selector lists	6.3.0	6.4.0	S1-040440
SP-24	SP-040287	22.011	060	-	Rel-6	F	Use of access technology in Periodic Network Selection attempts	6.3.0	6.4.0	S1-040442

SP-24	SP-040287	22.011	061	-	Rel-6	F	Clarification on the use of the RAT during network selection	6.3.0	6.4.0	S1-040443
SP-24	SP-040287	22.011	065	-	Rel-6	F	Mobile behavior when performing Periodic Network Selection attempts in un-coordinated networks	6.3.0	6.4.0	S1-040439

6.2.1 Impact on 2G and 2.5G mobiles

Regarding the Impact on 2G and 2.5G mobiles, the conclusion from SA1 was that a single mode mobile shall ignore those PLMN + access technology entries on the PLMN selector list where the associated RAT is not supported by the ME.

Based on this decision, CR 22.011-058 is presented for approval in document SP-040287.

6.2.2 Mobile behaviour in networks which are not coordinated

On the behaviour of mobiles in networks which are not coordinated, a CR has been agreed at last SA1 meeting on 22.011 and this CR inhibits the so called ping pong between the different RATs of a single PLMN. However, the current stage 1 requirement (not to change in background scan between the different RATs of the same PLMN) now inhibits the possibility to guide the user back from nationwide GSM coverage to (patchy) UMTS coverage if the UMTS coverage has been lost momentarily.

The exception to this is where background scan should result in a change of network. In order to fix this there is a need to identify when the background scan should take the mobile to another network and when it should not.

SA1 has attempted this and document SP-040287 contains CR 22.011-065 for approval.

Ericsson indicated that it is not certain this CR is required and has an objection to it. However, it was indicated that more information will be sought by Ericsson prior to this CR being presented to SA. In the meantime, it is conditional on the work done in CN.

6.2.3 Breaking RAT into the different frequency bands

On the need to break RAT into the different frequency bands, the SA1 conclusion was that CDMA2000 can not be another RAT in this respect since the network selection specification is maintained by 3GPP2. Moreover, WLAN is not just another RAT either, since the WLAN PLMN selection is not reusing the 22.011 and 23.122 PLMN specification but a separate procedure. Therefore, at the moment there are no requirements to distinguish between different frequency bands.

Network selection using Radio Access Technologies specified by other bodies (e.g. WLAN, CDMA2000) is the subject of ongoing discussion in SA1 but is beyond the scope of Release 6.

Therefore, CR 22.011-059 is being presented in SP-040287 for approval.

There was an objection from Ericsson. In view of this, the CR is conditional subject to other groups being able to do the work in Rel-6.

This has been communicated to T3, CN1 in S1-040506 and it was agreed to be sent to SA for approval.

6.2.4 Use of access technology in Periodic Network Selection attempts

In conjunction with this issue, a CR to 22.011 on use of access technology in Periodic Network Selection attempts was presented. Following the discussion on the use of Radio Access Technology (RAT) by the UE in PLMN selection, and in particular background scan, it has been agreed that the RAT is to be used and this needs to be clearly specified in TS 22.011. It has been noted that 23.122 is affected but that the CN box is not ticked, however, in 23.122, the idle procedure is affected and so the Core Network is not affected.

The CR 22.011-060 is presented in document SP-040287 for approval.

In addition, a CR was provided to try and clarify related text that thought to be a bit ambiguous.

The CR 22.011-061 is presented in document SP-040287 for approval.

6.3 Correction of UICC related text (22.101)

It was identified in SA1 that 22.101 contains text referring to the characteristics of the UICC. However, this text appears in Chapter 13.1.1 entitled 'The USIM'. The UICC is the platform upon which a USIM application resides and the UICC characteristics are independent of the USIM hence it is necessary to move the text describing the characteristics of the UICC to Chapter 13.2 entitled 'The UICC'.

Furthermore, the characteristics of the UICC are defined within TS 31.101 and it is not appropriate for text describing the characteristics of the UICC to be duplicated within TS 22.101. It is therefore necessary that the text be edited to include a reference 31.101 to ensure the UICC characteristics are correctly and consistently specified within 3GPP.

CR 22.101-152 is presented in document SP-040288 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040288	22.101	152	-	Rel-6	F	Correction of UICC related text.	6.7.0	6.8.0	S1-040427

6.4 Correction of open ended OSA high abstraction requirement (22.127)

At the last SA1, a CR to 22.127 was presented to correct, what is considered, an open ended OSA high abstraction requirement. The current requirement text for OSA APIs at a higher level of abstraction is loosely worded, resulting in an open ended requirement.

CR 22.127-071 is provided in document SP-040289 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040289	22.127	071	-	Rel-6	F	Correction of open ended OSA high abstraction requirement	6.5.0	6.6.0	S1-040421

6.5 Multimedia Messaging (22.140)

A number of CRs are being put forward in relation to Multimedia Messaging.

The first is a CR to 22.140 on Handling of Private Addressing Schemes. This CR has had a chequered history. TSG T has approved a WID for the introduction of MMS network

capabilities to allow introduction of operator specific services dealing with private addressing (e.g. VPN). Now SA1 is introducing the requirements in order to finalise the advanced MMS services.

Nokia has expressed the view that the content of the CR is inconsistent with the WID. The scope of the change is much larger than the WID.

The CR 22.140-044 is presented in SP-040290 for approval.

The second CR is being put forward to clarify MMS client interaction with UICC. It is unclear to T3 how the interaction between the MMS client in the ME and the UICC has to occur without this CR.

The CR 22.140-045 is presented in SP-040290 for approval.

Finally, the last CR contains an update to the scope and removes the VHE based requirement. The reassignment of 22.121 from TS to TR impacts the content of 22.140. The need to 'comply' with 22.121 is no longer valid. Also the scope of the document is not a succinct as it should be with vague discussion of out of scope issues.

The CR 22.140-046 is presented in SP-040290 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040290	22.140	044	-	Rel-6	B	Support of MMS operator specific services	6.5.0	6.6.0	S1-040540
SP-24	SP-040290	22.140	045	-	Rel-6	F	Clarification on MMS client interaction with UICC	6.5.0	6.6.0	S1-040541
SP-24	SP-040290	22.140	046		Rel-6	F	Update to scope and removal of VHE based requirement.	6.5.0	6.6.0	S1-040542

6.6 Addition of a concept regarding UE joining time (22.146)

In the January meeting SA1 handled LS from SA3 regarding “Joining availability time” which denotes the starting time after which MBMS users can join MBMS services. SA3 introduced it as a solution for key distribution.

SA1’s opinion was that a user should be able to join an MBMS user service as soon as possible after announcement of the service therefore SA1 does not see the need for the concept of "Joining Availability Time".

Even though this time concept is important for SA3, MBMS related specifications have no mention about the time between to get an announcement and to join a multicast service. TS 22.146 just contains the transmission time, which means, even if a user joins a multicast service immediately on notification, the user may get the service at a later time.

Therefore, CR 22.146-043 is presented in document SP-040291 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040291	22.146	043	-	Rel-6	F	Addition of a concept regarding UE joining time	6.4.0	6.5.0	S1-040518

6.7 Correction of Rel-5 reference to USIM in Rel-6 (22.228, 22.101)

Once again the issue of the USIM and ISIM was brought up. The intention was to remove what was considered an obsolete Rel-5 requirement in 22.228 Rel-6. It should be noted that, by default, a USIM is required to access GERAN or UTRAN and so this text is a little obsolete.

Quite apart from the problem of having a Rel-5 requirement in a Rel-6 specification, there is no mechanism in T3 for verifying the presence of other applications. Also, there are firewalls between applications on the UICC to prevent this.

In SA1, there is a difference of opinion as to whether a USIM shall be required on the same UICC as the ISIM; i.e. that the ISIM application shall require a USIM for access UTRAN or GERAN.

All this notwithstanding, SA1 decided to have a CR to 22.228 and 22.101 to remove this text from Rel-6, with the understanding that no changes on current or past requirement are implied by this change.

The CRs are presented in document SP-040292 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040292	22.101	154	-	Rel-6	F	Editorial Correction of R5 reference	6.7.0	6.8.0	S1-040537
SP-24	SP-040292	22.228	024	-	Rel-6	F	Editorial Correction of R5 reference	6.5.0	6.6.0	S1-040538

6.8 Duplicated scenarios of Annex A (22.228)

SA1 has received a CR to 22.228 regarding duplicated scenarios of Annex A. Scenario 1-5 are exactly same to scenario 6-10.

This was corrected in Rel-5 but not, apparently, in Rel-6.

Thus, CR 22.228-023 is presented in SP-040293 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040293	22.228	023	-	Rel-6	F	Deletion of duplicated scenarios of Annex A	6.5.0	6.6.0	S1-040517

6.9 WLAN (22.234)

There are a number of CRs for the newly created WLAN TS 22.234.

The first is a CR to 22.234 to add a definition of 3GPP PS based services. Currently TS 22.234 uses the term “3GPP PS based services” when it groups WLAN interworking level; although this is not defined. Also, it only takes “IMS” as an example of those services in the TS. SA2 already considered the definition to clarify I-WLAN scenarios. Thus, not only to clarify the definition but also to help the understanding, SA1 should add the definition of “3GPP PS based services” to TS 22.234. SA2 should be aware of this.

The second CR adds clause 4, which provides general description of I-WLAN.

The last relates to selection of a PLMN accessed via an I-WLAN. The CR adds a

description of procedure for the selection of PLMN when connected via I-WLAN. It also contains a description of procedure for the selection of PLMN when connected via I-WLAN.

CRs 22.234-002, 22.234-003 and 22.234-004 is presented in document SP-040294 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040294	22.234	002	-	Rel-6	F	Addition of a definition of 3GPP PS based services	6.0.0	6.1.0	S1-040528
SP-24	SP-040294	22.234	003	-	Rel-6	C	TS 22.234 Addition of clause 4. General Description	6.0.0	6.1.0	S1-040531
SP-24	SP-040294	22.234	004	-	Rel-6	B	Selection of a PLMN accessed via an I-WLAN	6.0.0	6.1.0	S1-040549

6.9.1 Priority usage of UICC parameters for I-WLAN (22.011, 22.234)

The first CR package for WLAN is related to the priority usage of UICC parameters for I-WLAN. This text currently is located in 22.011 and the intention is to move it to 22.34. To do this, two CRs to 22.011 and 22.234 are being presented; one to delete the text from 22.011 and the other to insert it into 22.234.

Therefore, CRs 22.011-064 and 22.234-001 are presented in document SP-040295 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040295	22.011	064	-	Rel-6	F	Priority usage of UICC parameters for I-WLAN	6.3.0	6.4.0	S1-040526
SP-24	SP-040295	22.234	001	-	Rel-6	F	Priority usage of UICC parameters for I-WLAN	6.0.0	6.1.0	S1-040527

6.10 Priority Feasibility Study (22.950)

There are two CRs to the Priority Feasibility Study TR. These two CRs deal with annexes (B and C), both of which contain content that is out of date and is no longer needed.

The CRs 22.950-007 and 22.950-008 are presented in SP-040296 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040296	22.950	007	-	Rel-6	F	Deletion of Annex C (Informative) from draft ITU-T Recommendation F.706	6.2.0	6.3.0	S1-040521
SP-24	SP-040296	22.950	008	-	Rel-6	F	Deletion of Annex B (Informative) from ITU-T Recommendation E.106	6.2.0	6.3.0	S1-040520

6.11 Priority Service Guide (22.952)

Also related to Priority, there are three CRs to 22.952.

The first contains a correction of Figure 5-7. An incorrect disconnect procedure illustrated in Figure 5.7: “Priority Service Mobile Originated – Queue Time-Out”. In step K, on receiving the Clear Request message with cause “No Radio Resource Available”, the MSC/VLR does not need to send the Disconnect message as no channel has yet been

assigned to MS.

The second contains a correction of Figure 5-8 also to correct a disconnect procedure (illustrated in Figure 5.8). The reasons are the same as for the first CR. Also, there is typo in the heading of section 5.12.

Finally, the last CR contains a correction to the references. TSG-SA#22 noted that references to TS 08.08 should be replaced by references to TS 48.008.

The CRs 22.952-001, 22.952-002 and 22.952-003 are presented for approval in SP-040297.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040297	22.952	001	-	Rel-6	F	TR 22.952 - Correction to Figure 5.7: Priority Service Mobile Originated – Queue Time-Out	6.0.0	6.1.0	S1-040522
SP-24	SP-040297	22.952	002	-	Rel-6	F	TR 22.952 - Correction to Figure 5.8: Priority Service Call Termination – Radio Resources Unavailable and Queue Time-Out	6.0.0	6.1.0	S1-040523
SP-24	SP-040297	22.952	003	-	Rel-6	F	Change of TS 08.08 reference to 48.008	6.0.0	6.1.0	S1-040524

7 Change Requests for Rel-7

7.1 Support of multiple HPLMN codes in EF_HPLMNwAcT (22.011)

SA1 received a liaison statement from T3 on Support of multiple HPLMN codes in EF_HPLMNwAcT.

The current definition of the IMSI is limited with regards to the amount of IMSIs available for all (future) customers. Also there might be, for licensing reasons etc., the need for having only one radio network, but two or more network codes (MCC+MNCs) used for the IMSIs belonging to the network. The issue has been raised in several 3GPP groups. With this background there is a need to allow a mobile to consider a network as part of the HPLMN, even in casses where the broadcasted MCC+MNC is different from the MCC+MNC part of the IMSI.

In SA1 there was a proposal to have a CR to 22.011 to have an equivalent PLMN for the home network only. The only issue which remains is how to handle the access classes particularly if the subscriber is on the other PLMN to the one indicated in the IMSI. This is a different solution to that of T3 and so the CR has been sent to all the other groups indicated in the T3 liaison statement (S1-040449).

The CR 22.011-63 is provided in document SP-040298 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040298	22.011	063	-	Rel-7	B	Support of multiple HPLMN codes	6.3.0	7.0.0	S1-040448

7.2 Multimode terminals with 3GPP capability (22.011)

At the last meeting, SA1 received a discussion document on Multi system mobile stations. It is proposed that SA1 should study the best way to document the behaviour of a multi system mobile station that supports 3GPP. This could be documented either in a new TR

or in some changes on existing specification(s). The distinction between 3GPP internal requirements and system selection requirements between 3GPP and other systems should be kept clearly visible for the implementers. The goal does not need to be to standardise the whole system selection, but it should be identified clearly which requirements are mandatory and which can be left implementation specific.

It was decided that there is a need for a WI on this issue (see section 9.5) but, at the same time, a CR was provided in response to a liaison statement from 3GPP2 in SP-040266.

Different types of Multi-mode terminals in one terminal can be produced and will be produced. Currently the 3GPP specifications do not contain any requirements for t the interaction of terminal's combining different technologies with the 3GPP system.

It is presented as CR 22.011-062 in document SP-040299 approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040299	22.011	062	-	Rel-7	F	Multimode terminals with 3GPP capability	6.3.0	7.0.0	S1-040445

7.3 Accuracy of information and Indication of capability (22.071)

SA1 has received a proposed CR to 22.071 on Accuracy of information and Indication of capability. Networks may have the capability to provide accuracy better than cell-id. This CR permits the network to inform the requestor of this better accuracy capability in lieu of the better accuracy. This replaces the requirement for "best location possible".

The CR 22.071-070 is provided in document SP-040300 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040300	22.071	070	-	Rel-7	C	Accuracy of information Indication of capability	6.7.0	7.0.0	S1-040514

7.4 Location privacy for emergency calls (22.101)

SA1 has received a CR to 22.101 relating to termination of location privacy override for emergency calls. National regulations in countries may place different requirements upon networks to override normal privacy requirements and 22.101 does not reflect this possible need.

The CR 22.101-153 is provided in document SP-040301 for approval.

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040301	22.101	153	-	Rel-7	B	Termination of location privacy override for emergency calls	6.7.0	7.0.0	S1-040513

8 New TSs/TRs

SA1 has no TSs to present for approval.

9 WIs from SA1

SA1 has three updated WIs to present for approval.

9.1 Network Protection against Virus Infected Mobiles

At the last meeting SA1 received a proposal for a new work item to provide network protection against virus infected mobiles. The virus threat to the IT organizations and consumers worldwide is well known. Significant damage has been caused and particularly so with rather simple but potent methods. With increasing data usage and the drive towards increasing the ARPU per subscriber from increased data usage, the need for effective methods of dealing with the threat of a downloaded virus to a mobile telephone needs to be addressed.

After some discussion in SA1, it was decided that what is needed is:

- A means of disabling an infected device from registering again on the network, both in the current network and any other network, i.e. effectively quarantining the device.
- A means of being able to repair the device
- A means of maintaining the disabled status of the device, even if the mobile has been successively switched off and on, until it is repaired.

With this in mind, SA1 is presenting the WI in document SP-040302 for approval.

Also, it was noted in SA1 that this is area that OMS could be working on and so a liaison statement have been sent to inform the OMA of the proposal (S1-040424).

9.2 All-IP Network Feasibility Study

A proposal for another new work item was received on the subject of All-IP Network Feasibility Study. In order for the 3GPP system to cope with the rapid growth in IP data traffic, the packet-switched technology utilised within 3G mobile networks requires further enhancement. A continued evolution and optimisation of the system concept is also necessary in order to maintain a competitive edge in terms of both performance and cost. It is anticipated that the progression towards an All-IP Network may enable leverage of information technology (IT) hardware and software with general-purpose, and mobile network specific software that should provide cost reduction (CAPEX and OPEX) for infrastructure equipment and applications of 3GPP based mobile networks. Moreover, it is important to ensure compliance with Internet protocols within future developments of the 3GPP system.

The objectives of this work item are to study further application of the All-IP Network concept. Identify and evaluate needs/drivers and identify work required to satisfy the short term and long term needs of 3GPP.

It is presented in SP-040303 for approval.

9.3 Enhancements of VGCS in public networks

It is envisaged, that voice group call services (VGCS) can in future be used in public networks for communication of public authority officials (police, fire brigade ..). To meet the particular requirements for these purposes, some additional functionality (e.g. encryption, emergency handling, and SMS support) needs to be supported by VGCS services.

The objective of this work item is to create the required change requests to existing VGCS specifications and related specifications to enhance VGCS with the additional capabilities to support communication of public authority officials.

It is presented in SP-040304 for approval.

9.4 Adding media to CS calls and IPMM sessions

At the last meeting, SA1 received a discussion paper on “Combining CS Bearers with IMS” (CSI), as described in the WI in SP-040044 which is being dealt with by SA2.

During discussions on this subject, it was suggested that the work in SA1 on this should be dealt with independently of the WI in SA2. Based on this, it was suggested that if a CS call is set up, then an indication could be given if the two terminals support IMS and so things such as send web pages. The intention is to make this more user-friendly. This is not trivial as it requires the network and the terminal support DTM (e.g. in GERAN).

To cover the scope of the work, SA1 elaborated a WI which is presented in SP-040305 for approval.

9.5 Multi system mobile stations

Currently it is not standardised on how a multi system mobile station should perform system selection, network operator selection (PLMN selection in 3GPP terms) and cell selection/re-selection between the supported systems. (See also section 7.2)

It is presented in document SP-040306 for approval.

9.6 Network Selection Enhancements (22.011)

SA1 also received a discussion document on Network Selection Enhancements. As Circuit Switched services were made available commercially first, many network operators have roaming agreements in place with multiple operators in a given country to support these services.

However, as GPRS has been introduced it has been necessary for operators to introduce additional roaming agreements for its support. Inevitably these are not yet as extensive in number as the roaming arrangements in place for circuit switched services. Furthermore, it is not necessarily the case that GPRS roaming agreements will be arranged in an order that is consistent with the priority of the PLMN’s listed in the Operator List.

The WI is presented in SP-040307 for approval.

9.7 Toward A-GNSS concept to extend A-GPS to include GALILEO

SA1 has received a proposal for a new WI to extend A-GPS to include GALILEO and other satellite navigation systems. The Cell-ID or E-OTD methods provide high service availability but limited service accuracy. The A-GPS method provides high service accuracy but service availability could be improved, especially when considering the obstacles masking the signals of part of the GPS satellites in urban environments. Other satellite positioning systems will be developed in the near future. It has been highlighted the advantages of enlarging the Assisted GPS concept to Assisted Global Navigation Satellite Systems, and particularly to the GALILEO system, since it allows to improve the lacks mentioned here above. It is then important for the 3GPP specifications to open the door to these other systems.

The WI is presented in document SP-040308 for approval.

9.8 LCS for 3GPP Interworking WLAN

Another WI related to LCS was provided to SA1, titled LCS for 3GPP Interworking WLAN. As the 3GPP development continues on Location Services (LCS) requirements, so the standards for 3GPP WLAN interworking need to be extended to support the same location-based services that have been deployed today for GSM and UMTS. LCS with 3GPP WLAN Interworking system is considered to enlarge the area of location service.

This work item proposes that a feasibility study be performed to outline the technical requirements, scope of work required, and perform a gap analysis to determine whether existing 3GPP specifications can support LCS requirements for 3GPP WLAN interworking. If it is determined that providing for this service is feasible, then this work item will continue forward to encompass future work.

It is presented in SP-040309 for approval.

10 Other Issues

10.1 Liaison statements reduction

In order to save valuable meeting time in SA1 as well as in other WGs it was agreed to try to reduce the number of outgoing LSs. Some of the LSs will be replaced by direct communication with the chairmen of the interested groups by the chairman of SA1 or by information given during the SA plenary. SA1 will in principle produce LSs only:

i) when change requests to core specifications are agreed that should receive urgent attention in other groups (e.g. CR to a frozen release)
ii) when requirements are clarified as a result of an incoming LS. (on a case by case basis)

LSs requiring clarifications on stage 1 that do not result in change requests will not normally be answered. (it is expected that the other WGs spend some time reading the stage 1 documents).

10.2 Possible additional SWG meeting

In order to progress the work on some of the WIDs agreed by SA1 with the aim of meeting the demanding timescales SA1 is evaluating the possibility of holding an additional set of SWG meetings in August - September.

11 Meetings of SA1

11.1 Meetings since last SA

The following meetings have been held since SA #21.

Meeting	Date	Place	Host
SA1#24	10 – 14 May 2004	Shenzhen , China	ZTE

11.2 Planned meetings

SA1 has the following meetings scheduled, so far.

SA1 Plenary

Meeting	Date	Place	Host
SA1#25	28 June – 02 July 2004	Montreal, Canada	NA friends of 3GPP
SA1#26	11 – 15 October 2004	Sophia Antipolis, FR	European friends of 3GPP
SA1#27	17 – 21 January 2005	South Africa	Vodacom

SA1 SWGs

None (see section 10.2 above).

Annex 1: Documents provided to this Plenary

Tdoc	Title	source	Agenda	Doc for
SP-040233	LS from SA WG1: PLMN selection and background scan	SA WG1	7.1.2	Information
SP-040234	Reply to: CEPT/ECC consultation on use of short codes	SA WG1	7.1.2	Action
SP-040281	Presentation of SA1 to SA #24	SA WG1 Chairman	7.1.1	Information
SP-040282	Status report of SA1 to SA #24	SA WG1 Chairman/ MCC	7.1.1	Information
SP-040283	CRs to 22.004 on SS applicability to Voice Group Services (Rel-4)	SA WG1	7.1.3	Approval
SP-040284	CRs to 22.078 on SCUDIF corrections for CAMEL interworking (Rel-5/Rel-6)	SA WG1	7.1.3	Approval
SP-040285	CRs to 22.078 on Preconditions for connecting a held party to the group (Rel-5/Rel-6)	SA WG1	7.1.3	Approval
SP-040286	CRs to 21.905 on Definitions and abbreviations (Rel-6)	SA WG1	7.1.3	Approval
SP-040287	CRs to 22.011 on PLMN selection and background scan (Rel-6)	SA WG1	7.1.3	Approval
SP-040288	CR to 22.101 on Correction of UICC related text (Rel-6)	SA WG1	7.1.3	Approval
SP-040289	CR to 22.127 on Correction of open ended OSA high abstraction requirement (Rel-6)	SA WG1	7.1.3	Approval
SP-040290	CRs 22.140 on Multimedia Messaging (Rel-6)	SA WG1	7.1.3	Approval
SP-040291	CR to 22.146 on Addition of a concept regarding UE joining time (Rel-6)	SA WG1	7.1.3	Approval
SP-040292	CR to 22.228 and 22.101 on correction of Rel-5 reference to USIM in Rel-6	SA WG1	7.1.3	Approval
SP-040293	CR to 22.228 on Duplicated scenarios of Annex A (Rel-6)	SA WG1	7.1.3	Approval
SP-040294	CRs to 22.234 on WLAN (Rel-6)	SA WG1	7.1.3	Approval
SP-040295	CRs to 22.011 and 22.234 on Priority usage of UICC parameters for I-WLAN (Rel-6)	SA WG1	7.1.3	Approval
SP-040296	CRs to 22.950 on Priority Feasibility Study (Rel-6)	SA WG1	7.1.3	Approval
SP-040297	CRs to 22.952 on Priority Service Guide (Rel-6)	SA WG1	7.1.3	Approval
SP-040298	CR to 22.011 on Support of multiple HPLMN codes in EF_HPLMNwAcT (Rel-7)	SA WG1	7.1.3	Approval
SP-040299	CR to 22. 011 on Multimode terminals with 3GPP capability (Rel-7)	SA WG1	7.1.3	Approval
SP-040300	CR to 22.071 on Accuracy of information and Indication of capability (Rel-7)	SA WG1	7.1.3	Approval

	of capability (Rel-7)			
SP-040301	CR to 22.101 on Location privacy for emergency calls (Rel-7)	SA WG1	7.1.3	Approval
SP-040302	New WI on Network Protection against Virus Infected Mobiles	SA WG1	7.1.3	Approval
SP-040303	New WI on All-IP Network Feasibility Study	SA WG1	7.1.3	Approval
SP-040304	New WI on Enhancements of VGCS in public networks	SA WG1	7.1.3	Approval
SP-040305	New WI on Adding media to CS calls and IPMM sessions	SA WG1	7.1.3	Approval
SP-040306	New WI on Multi system Ues	SA WG1	7.1.3	Approval
SP-040307	New WI on Network Selection Enhancements	SA WG1	7.1.3	Approval
SP-040308	New WI on A-GNSS concept to extend A-GPS to include GALILEO	SA WG1	7.1.3	Approval
SP-040309	New WI on LCS for 3GPP Interworking WLAN	SA WG1	7.1.3	Approval

Annex 2: CRs provided to this Plenary

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-24	SP-040286	21.905	057	-	Rel-6	F	Inclusion of ANP abbreviation as requested by SA3	6.6.0	6.7.0	S1-040507
SP-24	SP-040286	21.905	058	-	Rel-6	F	TR 21.905 Addition WLAN UE definition and classes of equipment and abbreviation	6.6.0	6.7.0	S1-040529
SP-24	SP-040283	22.004	010	-	Rel-4	F	Modification of table A1 required to remove wrong SS applicability to VG Services	4.2.0	4.3.0	S1-040498
SP-24	SP-040283	22.004	011	-	Rel-5	A	Modification of table A1 required to remove wrong SS applicability to VG Services	5.0.0	5.1.0	S1-040499
SP-24	SP-040287	22.011	058	-	Rel-6	F	Behavior of Single Mode mobiles with regards to the use of access technology in the PLMN selector lists	6.3.0	6.4.0	S1-040438
SP-24	SP-040287	22.011	059	-	Rel-6	F	Identification of FDD and TDD in the PLMN selector lists	6.3.0	6.4.0	S1-040440
SP-24	SP-040287	22.011	060	-	Rel-6	F	Use of access technology in Periodic Network Selection attempts	6.3.0	6.4.0	S1-040442
SP-24	SP-040287	22.011	061	-	Rel-6	F	Clarification on the use of the RAT during network selection	6.3.0	6.4.0	S1-040443
SP-24	SP-040299	22.011	062	-	Rel-7	F	Multimode terminals with 3GPP capability	6.3.0	7.0.0	S1-040445
SP-24	SP-040298	22.011	063	-	Rel-7	B	Support of multiple HPLMN codes	6.3.0	7.0.0	S1-040448
SP-24	SP-040295	22.011	064	-	Rel-6	F	Priority usage of UICC parameters for I-WLAN	6.3.0	6.4.0	S1-040526
SP-24	SP-040287	22.011	065	-	Rel-6	F	Mobile behavior when performing Periodic Network Selection attempts in un-coordinated networks	6.3.0	6.4.0	S1-040439
SP-24	SP-040300	22.071	070	-	Rel-7	C	Accuracy of information Indication of capability	6.7.0	7.0.0	S1-040514
SP-24	SP-040284	22.078	171	-	Rel-5	F	SCUDIF corrections for CAMEL interworking	5.13.0	5.14.0	S1-040509
SP-24	SP-040284	22.078	172	-	Rel-6	A	SCUDIF corrections for CAMEL interworking	6.4.0	6.5.0	S1-040510
SP-24	SP-040285	22.078	173	-	Rel-5	F	Correction to preconditions for connecting a held party to the group	5.13.0	5.14.0	S1-040511
SP-24	SP-040285	22.078	174	-	Rel-6	A	Correction to preconditions for connecting a held party to the group	6.4.0	6.5.0	S1-040512
SP-24	SP-040288	22.101	152	-	Rel-6	F	Correction of UICC related text.	6.7.0	6.8.0	S1-040427
SP-24	SP-040301	22.101	153	-	Rel-7	B	Termination of location privacy override for emergency calls	6.7.0	7.0.0	S1-040513
SP-24	SP-040292	22.101	154	-	Rel-6	F	Editorial Correction of R5 reference	6.7.0	6.8.0	S1-040537
SP-24	SP-040289	22.127	071	-	Rel-6	F	Correction of open ended OSA high abstraction requirement	6.5.0	6.6.0	S1-040421
SP-24	SP-040290	22.140	044	-	Rel-6	B	Support of MMS operator specific services	6.5.0	6.6.0	S1-040540
SP-24	SP-040290	22.140	045	-	Rel-6	F	Clarification on MMS client interaction with UICC	6.5.0	6.6.0	S1-040541

SP-24	SP-040290	22.140	046		Rel-6	F	Update to scope and removal of VHE based requirement.	6.5.0	6.6.0	S1-040542
SP-24	SP-040291	22.146	043	-	Rel-6	F	Addition of a concept regarding UE joining time	6.4.0	6.5.0	S1-040518
SP-24	SP-040293	22.228	023	-	Rel-6	F	Deletion of duplicated scenarios of Annex A	6.5.0	6.6.0	S1-040517
SP-24	SP-040292	22.228	024	-	Rel-6	F	Editorial Correction of R5 reference	6.5.0	6.6.0	S1-040538
SP-24	SP-040295	22.234	001	-	Rel-6	F	Priority usage of UICC parameters for I-WLAN	6.0.0	6.1.0	S1-040527
SP-24	SP-040294	22.234	002	-	Rel-6	F	Addition of a definition of 3GPP PS based services	6.0.0	6.1.0	S1-040528
SP-24	SP-040294	22.234	003	-	Rel-6	C	TS 22.234 Addition of clause 4. General Description	6.0.0	6.1.0	S1-040531
SP-24	SP-040294	22.234	004	-	Rel-6	B	Selection of a PLMN accessed via an I-WLAN	6.0.0	6.1.0	S1-040549
SP-24	SP-040296	22.950	007	-	Rel-6	F	Deletion of Annex C (Informative) from draft ITU-T Recommendation F.706	6.2.0	6.3.0	S1-040521
SP-24	SP-040296	22.950	008	-	Rel-6	F	Deletion of Annex B (Informative) from ITU-T Recommendation E.106	6.2.0	6.3.0	S1-040520
SP-24	SP-040297	22.952	001	-	Rel-6	F	TR 22.952 - Correction to Figure 5.7: Priority Service Mobile Originated – Queue Time-Out	6.0.0	6.1.0	S1-040522
SP-24	SP-040297	22.952	002	-	Rel-6	F	TR 22.952 - Correction to Figure 5.8: Priority Service Call Termination – Radio Resources Unavailable and Queue Time-Out	6.0.0	6.1.0	S1-040523
SP-24	SP-040297	22.952	003	-	Rel-6	F	Change of TS 08.08 reference to 48.008	6.0.0	6.1.0	S1-040524

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

Spec	Title	Ph1	Ph2	R96	R97	R98	R99	Rel-4	Rel-5	Rel-6	Rel-7
01.02	General Description of a GSM Public Land Mobile Network (PLMN)		4.0.2	5.0.0	6.0.1						
01.48	ISDN-based DECT/GSM interworking; Feasibility study			5.0.1	6.0.1						
01.56	GSM Cordless Telephony System (CTS) (Phase 1); CTS Authentication and Key Generation Algorithms Requirements					7.0.0					
01.60	GPRS requirements				6.0.0						
02.01	Principles of telecommunication services supported by a GSM Public Land Mobile Network(PLMN)	3.2.0	4.6.0	5.5.0	6.2.0	7.1.0					
02.02	Bearer Services (BS) Supported by a GSM Public Land Mobile Network (PLMN)	3.2.0	4.2.2	5.3.2	6.1.1	7.0.2					
02.03	Teleservices Supported by a GSM Public Land Mobile Network (PLMN)	3.4.1	4.3.1	5.3.2	6.0.0	7.0.0					
02.04	General on Supplementary Services	3.7.1	4.9.1	5.7.4	6.1.1	7.1.2					
02.06	Types of Mobile Stations (MS)	3.2.0	4.5.2	5.2.1	6.1.1	7.0.1					
02.07	Mobile Station (MS) Features	3.4.1	4.8.2	5.4.1	6.2.0	7.1.0					
02.11	Service accessibility	3.7.0	4.9.0	5.0.1	6.1.0	7.1.0					
02.16	International Mobile Station Equipment Identities (IMEI)	3.0.1	4.7.1	5.2.0	6.2.0	7.2.0					
02.20	Collection charges	3.0.1									
02.22	Stage 1 for personalisation of GSM ME			5.4.0	6.0.0	7.0.0					
02.24	Description of Charge Advice Information (CAI)		4.5.0	5.0.1	6.0.1	7.0.1					
02.30	Man-machine Interface (MMI) of the Mobile Station (MS)	3.9.0	4.13.0	5.7.1	6.1.0	7.1.1					
02.34	High Speed Circuit Switched Data (HSCSD); Stage 1			5.2.1	6.0.0	7.0.0					
02.40	Procedures for Call Progress Indications	3.2.0	4.5.0	5.0.0	6.0.0	7.0.1					
02.41	Operator Determined Barring		4.5.2	5.1.1	6.0.0	7.0.0					
02.42	Network Identity and Timezone (NITZ); Service Description, Stage 1			5.1.0	6.0.0	7.0.0					
02.43	Support of Localised Service Area (SoLSA); Service description; Stage 1					7.3.0	8.0.0				
02.56	GSM Cordless Telephony System (CTS), Phase 1; Service description; Stage 1					7.2.1	8.0.1				
02.57	Mobile Station Application Execution Environment (MExE) Service description Stage 1					7.1.0					
02.60	General Packet Radio Service Stage 1 Description				6.3.1	7.5.0					
02.63	Packet Data on Signalling channels Service (PDS); Stage 1			5.0.0	6.0.0	7.0.0					
02.66	Support of Mobile Number Portability (MNP); Service description; Stage 1					7.1.0					
02.67	Enhanced Multi-Level Precedence and Pre-			5.1.1	6.1.1	7.0.1					

	emption Service (eMLPP); Stage 1										
02.68	Voice Group Call Service (VGCS); Stage 1			5.2.1	6.0.1	7.0.2	8.1.0				
02.69	Voice Broadcast Service (VBS); Stage 1			5.2.1	6.0.1	7.0.2	8.1.0				
02.71	Location Services (LCS); Stage 1					7.3.0					
02.72	Call Deflection Service description; Stage 1					7.2.1					
02.78	Customized Applications for Mobile network Enhanced Logic (CAMEL); Service definition (Stage 1)			5.6.0	6.6.1	7.2.0					
02.79	Support of Optimal Routeing (SOR); Service definition (Stage 1)			5.2.0	6.0.0	7.0.0					
02.81	Line Identification Supplementary Services; Stage 1		4.6.1	5.1.0	6.0.0	7.0.0					
02.82	Call Forwarding (CF) Supplementary Services; Stage 1	3.6.1	4.5.2	5.0.0	6.0.0	7.0.1					
02.83	Call Waiting (CW) and Call Hold (HOLD) Supplementary Services; Stage 1		4.6.7	5.0.0	6.0.0	7.0.0					
02.84	MultiParty (MPTY) Supplementary Services; Stage 1		4.4.7	5.0.0	6.0.0	7.0.0					
02.85	Closed User Group (CUG) Supplementary Services; Stage 1		4.2.6	5.0.0	6.0.0	7.0.0					
02.86	Advice of Charge (AoC) Supplementary Services; Stage 1		4.1.5	5.0.0	6.0.0	7.0.0					
02.87	User-to-User Signalling (UUS) Service Description; Stage 1					7.1.2					
02.88	Call Barring (CB) Supplementary Services; Stage 1	3.6.1	4.4.3	5.0.0	6.0.0	7.0.0					
02.90	Unstructured Supplementary Service Data (USSD); Stage 1		4.1.1	5.1.0	6.0.0	7.0.0					
02.91	Explicit Call Transfer (ECT)			5.1.1	6.0.0	7.0.0					
02.93	Completion of Calls to Busy Subcriber (CCBS) Service Description; Stage 1				6.0.1	7.0.0					
02.95	Support of Private Numbering Plan (SPNP); Service description; Stage 1			5.2.0	6.0.0	7.0.0	8.0.0				
02.96	Name Identification Supplementary Services; Stage 1				6.0.1	7.0.0					
02.97	Multiple Subscriber Profile (MSP) Service description, Stage 1					7.1.0					
21.905	Vocabulary for 3GPP Specifications						3.3.0	4.5.0	5.8.0	6.6.0	
22.001	Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN)						3.2.0	4.3.0	5.0.0		
22.002	Circuit Bearer Services (BS) supported by a Public Land Mobile Network (PLMN)						3.6.0	4.2.0	5.0.0		
22.003	Circuit Teleservices supported by a Public Land Mobile Network (PLMN)						3.3.0	4.3.0	5.2.0		
22.004	General on supplementary services						3.3.0	4.2.0	5.0.0		
22.011	Service accessibility						3.8.0	4.8.0	5.1.0	6.3.0	
22.016	International Mobile Equipment Identities (IMEI)						3.3.0	4.2.1	5.0.0		
22.024	Description of Charge Advice Information (CAI)						3.0.1	4.0.0	5.0.0		

22.030	Man-Machine Interface (MMI) of the User Equipment (UE)						3.4.0	4.1.0	5.0.0	6.0.0	7.0.0
22.034	High Speed Circuit Switched Data (HSCSD); Stage 1						3.2.1	4.1.0	5.0.0		
22.038	USIM/SIM Application Toolkit (USAT/SAT); Service description; Stage 1						3.4.0	4.3.0	5.4.0	6.2.0	7.0.0
22.041	Operator Determined Call Barring						3.3.1	4.1.0	5.0.0	6.2.0	
22.042	Network Identity and Time Zone (NITZ) service description; Stage 1						3.0.1	4.2.1	5.1.0		
22.057	Mobile Execution Environment (MExE) service description; Stage 1						3.0.1	4.1.0	5.4.0		
22.060	General Packet Radio Service (GPRS); Service description; Stage 1						3.5.0	4.4.0	5.3.0	6.0.0	
22.066	Support of Mobile Number Portability (MNP); Stage 1						3.2.0	4.0.0	5.1.0	6.1.0	
22.067	enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 1						3.0.1	4.1.0	5.0.0	6.1.0	
22.071	Location Services (LCS); Stage 1						3.5.0	4.6.0	5.4.0	6.7.0	
22.072	Call Deflection (CD); Stage 1						3.0.1	4.0.0	5.0.0		
22.078	Customized Applications for Mobile network Enhanced Logic (CAMEL); Service description; Stage 1						3.9.0	4.5.0	5.13.0	6.4.0	7.0.0
22.079	Support of optimal routeing; Stage 1						3.0.1	4.0.0	5.0.0		
22.081	Line Identification supplementary services; Stage 1						3.2.0	4.1.0	5.0.0		
22.082	Call Forwarding (CF) Supplementary Services; Stage 1						3.0.2	4.2.0	5.0.0		
22.083	Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 1						3.0.1	4.1.0	5.0.0		
22.084	MultiParty (MPTY) supplementary service; Stage 1						3.0.1	4.1.0	5.0.0		
22.085	Closed User Group (CUG) supplementary services; Stage 1						3.1.0	4.1.0	5.0.0		
22.086	Advice of Charge (AoC) supplementary services; Stage 1						3.1.0	4.0.0	5.0.0		
22.087	User-to-user signalling (UUS); Stage 1						3.1.0	4.0.0	5.0.0		
22.088	Call Barring (CB) supplementary services; Stage 1						3.0.2	4.1.0	5.0.0		
22.090	Unstructured Supplementary Service Data (USSD); Stage 1						3.1.0	4.0.0	5.0.0		
22.091	Explicit Call Transfer (ECT) supplementary service; Stage 1						3.1.0	4.0.0	5.0.0		
22.093	Completion of Calls to Busy Subscriber (CCBS); Service description, Stage 1						3.0.1	4.0.0	5.0.0		
22.094	Follow Me service description - Stage 1						3.1.0	4.1.0	5.0.0	6.0.0	
22.096	Name identification supplementary services; Stage 1						3.0.1	4.0.0	5.0.0		
22.097	Multiple Subscriber Profile (MSP) Phase 1; Service description - Stage 1						3.2.0	4.1.0	5.0.0		

22.100	UMTS Phase 1						3.7.0				
22.101	Service aspects; Service principles						3.17.0	4.10.0	5.13.0	6.7.0	
22.105	Services and service capabilities						3.10.0	4.3.0	5.2.0	6.2.0	
22.115	Service Aspects Charging and billing						3.4.0	4.1.0	5.4.0	6.4.0	
22.121	Service aspects; The Virtual Home Environment; Stage 1						3.3.1	4.1.1	5.3.1		
22.127	Service Requirement for the Open Services Access (OSA); Stage 1							4.4.0	5.5.0	6.5.0	
22.129	Handover requirements between UTRAN and GERAN or other radio systems						3.6.0	4.4.0	5.2.0	6.1.0	
22.135	Multicall; Service description; Stage 1						3.4.0	4.2.0	5.0.0		
22.140	Multimedia Messaging Service (MMS); Stage 1						3.1.0	4.3.0	5.4.0	6.5.0	
22.141	Presence service; Stage 1									6.2.0	
22.146	Multimedia Broadcast/Multicast Service (MBMS); Stage 1									6.4.0	
22.174	Push service; Stage 1									6.2.0	
22.226	Global text telephony (GTT); Stage 1: Service description								5.2.0		
22.228	Service requirements for the Internet Protocol (IP) multimedia core network subsystem; Stage 1								5.6.0	6.5.0	
22.233	Transparent end-to-end packet-switched streamng service; Stage 1								5.0.0	6.3.0	
22.240	Service requirements for 3GPP Generic User Profile (GUP); Stage 1									6.3.0	
22.242	Digital Rights Management (DRM); Stage 1									6.2.0	
22.243	Speech recognition framework for automated voice services; Stage 1									6.4.0	
22.246	Multimedia Broadcast/Multicast Service (MBMS) user services; Stage 1									6.1.0	
22.250	IP Multimedia Subsystem (IMS) Group Management; Stage 1									6.0.0	
22.340	IP Multimedia Subsystem (IMS) messaging; Stage 1									6.1.0	
22.800	IP Multimedia Subsystem (IMS) subscription and access scenarios									6.0.0	
22.934	Feasibility study on 3GPP system to Wireles Local Area Network (WLAN) interworking									6.2.0	
22.940	IP Multimedia Subsystem (IMS) messaging; Stage 1									6.0.0	
22.944	Service requirements for UE functionality split								5.1.0		
22.949	Study on a generalized privacy capability									6.0.0	
22.950	Priority service feasibility study									6.2.0	
22.951	Service aspects and requirements for network sharing									6.1.0	
22.952	Priority service guide									6.0.0	
22.971	Automatic establishment of roaming relationships						3.1.1				
22.975	Advanced addressing						3.1.0				

22.977	Feasibility study for speech-enabled services									6.0.0	
42.043	Support of Localised Service Area (SoLSA); Service description; Stage 1							4.0.0	5.0.0		
42.056	GSM Cordless Telephony System (CTS), Phase 1; Service description; Stage 1							4.0.0	5.0.0		
42.068	Voice Group Call Service (VGCS); Stage 1							4.1.0	5.0.1		
42.069	Voice Broadcast Service (VBS); Stage 1							4.1.0	5.0.1		
22.234	Requirements on 3GPP system to Wireless Local Area Network (WLAN) interworking									6.0.0	