Technical Specification Group Services and System Aspects
Meeting #6, Nice, France, 15-17 December 1999

***TSGS#6(99)522***

**Source:** **TSG SA1**

**Title:** **CRs on LCS specific Emergency Services requirements included as an informative annex**

**Document for:** **Approval**

**Agenda Item:** **5.1.4**

| Status | Spec | CR | Rev | Phase | Subject | CAT | Vers | New Vers | TSG Meeting | TSG Doc.No. | Pres |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 02.71 | A002 | | R98 | U.S. specific Emergency Services requirements included as an informative annex. | D | 7.1.0 | 7.2.0 | S1#06 | S1-99954 | No |
| | 22.071 | 005 | | R99 | U.S. specific Emergency Services requirements included as an informative annex. | D | 3.1.0 | 3.2.0 | S1#06 | S1-99955 | No |

**3GPP SA1 #6**

***Document (99) 954***

T1P1.5/99-657r2

*e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx*

# CHANGE REQUEST

*Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.*

| 02.71 | CR | A002 | Current Version: | 7.1.0 |
|---|---|---|---|---|

*GSM (AA.BB) or 3G (AA.BBB) specification number ↑* *↑ CR number as allocated by MCC support team*

| For submission to: | 3GPP SA1#6 | for approval | X | strategic | | (for SMG use only) |
|---|---|---|---|---|---|---|
| *list expected approval meeting # here ↑* | | For information | | non-strategic | X | |

*Form: CR cover sheet, version 2 for 3GPP and SMG* *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

**Proposed change affects:** (U)SIM [ ] ME [ ] UTRAN / Radio [ ] Core Network [X]
*(at least one should be marked with an X)*

**Source:** TSG SA1 **Date:** 29 Nov 1999

**Subject:** U.S. specific Emergency Services requirements included as an informative annex.

**Work item:** Location Services (LCS)

*PT SMG CR cover form is available from: http://docbox.etsi.org/tech-org/smg/Document/smg/tools/CR_form/crf28_1.zip*

**Category:** *(one category and one release only shall be marked with an X)*

| | | | | | |
|---|---|---|---|---|---|
| F | Correction | | **Release:** | Phase 2 | |
| A | Corresponds to a correction in an earlier release | | | Release 96 | |
| B | Addition of feature | | | Release 97 | |
| C | Functional modification of feature | | | Release 98 | X |
| D | Editorial modification | X | | Release 99 | |
| | | | | UMTS | |

**Reason for change:** Informative inclusion of requirements for U.S. specific service driver.

**Clauses affected:**

**Other specs affected:**

| | | | |
|---|---|---|---|
| Other releases of same spec | | → List of CRs: | |
| Other core specifications | | → List of CRs: | |
| MS test specifications / TBRs | | → List of CRs: | |
| BSS test specifications | | → List of CRs: | |
| O&M specifications | | → List of CRs: | |

**Other comments:**

## 4.2 Quality of Service

### 4.2.1 Horizontal Accuracy

For Value Added Services and PLMN Operator Services, the following is applicable:
Accuracy is application driven and is one of the negotiable Quality of Service (QoS) parameters.
The precision of the location shall be network design dependent, i.e., should be an operator's choice. This precision requirement may vary from one part of a network to another.
The LCS shall allow an LCS Client to specify or negotiate the required horizontal accuracy. The LCS shall normally attempt to satisfy or approach as closely as possible the requested or negotiated accuracy when other quality of service parameters are not in conflict.
For Emergency Services (where required by local regulatory requirements) the following requirements shall be met:

- The LCS Server shall attempt to obtain the horizontal location of the calling MS, in terms of universal latitude and longitude coordinates, and shall provide this to an Emergency Service Provider. The accuracy shall be defined by local regulatory requirements. Annex A shows such requirements as exist in the United States..

NOTE: The LCS Server provides the location service capabilities but the mechanism by which location is reported to an emergency service provider is outside the scope of this service.

## 8 Interactions with Bearer and Teleservices and Other GSM Services

LCS shall support location of any Target MS that is idle or has established a voice call.
Location of a Target MS that has a call using any other circuit switched teleservice or any other circuit switched bearer service is for further study.
Location of a GPRS terminal or an MS using SMS may be supported.
Provision of location services to assist GSM supplementary services and CAMEL is outside the scope of this specification. The operation of location services shall be independent of other GSM services - including Number Portability, private numbering, CAMEL, supplementary services, teleservices, and bearer services.

# Annex A (Informative) USA FCC Wireless E911 Rules

Action was taken by the FCC on September 15, 1999, with respect to E911 location technology by the Third Report and Order (FCC 99-245).The FCC has adopted the following revisions to its wireless E911 rules:

- Wireless carriers who employ a Phase II location technology that requires new, modified or upgraded handsets (such as GPS-based technologies) may phase-in deployment of Phase II subject to the following requirements:
  - Without respect to any PSAP request for Phase II deployment, the carrier shall:
    1. Begin selling and activating ALI-capable handsets no later than March 1, 2001;
    2. Ensure that at least 50 percent of all new handsets activated are ALI-capable no later than October 1, 2001; and
    3. Ensure that at least 95 percent of all new digital handsets activated are ALI- capable no later than October 1, 2002.
  - Once a PSAP request is received, the carrier shall, in the area served by the PSAP:

  Within six months or by October 1, 2001, whichever is later:
    1. Ensure that 100 percent of all new handsets activated are ALI-capable;
    2. Implement any network upgrades or other steps necessary to locate handsets; and
    3. Begin delivering to the PSAP location information that satisfies Phase II requirements.

  Within two years or by December 31, 2004, whichever is later, undertake reasonable efforts to achieve 100 percent penetration of ALI-capable handsets in its total subscriber base.
- For roamers and other callers without ALI-capable handsets, carriers shall support Phase I ALI and other available best practice methods of providing the location of the handset to the PSAP.
- To be allowable under the FCC rules, an ALI technology that requires new, modified, or upgraded handsets shall conform to general standards and be interoperable, allowing roaming among different carriers employing handset-based location technologies.
- For carriers employing network-based location technologies, the FCC replaces its current plan, which requires that implementation be fully accomplished within 6 months of a PSAP request, with a revised rule requiring the carrier to deploy Phase II to 50 percent of callers within 6 months of a PSAP request and to 100 percent of callers within 18 months of such a request.
- The FCC adopts the following revised standards for Phase II location accuracy and reliability:
  - For network-based solutions: 100 meters for 67 percent of calls, 300 meters for 95 percent of calls;
  - For handset-based solutions: 50 meters for 67 percent of calls, 150 meters for 95 percent of calls.
- The FCC directs wireless carriers to report their plans for implementing E911 Phase II, including the technology they plan to use to provide caller location, by October 1, 2000. This report shall provide information to permit planning for Phase II implementation by public safety organizations, equipment manufacturers, local exchange carriers, and the FCC, in order to support Phase II deployment by October 1, 2001.

*TSG-SA Working Group 1meeting #6*

***TSG S1 (99) 955***

**San Diego, California, USA 19 Nov - 3 Dec 1999**

Agenda: 6.5

# 3G CHANGE REQUEST

*Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.*

| **22.071** | **CR** | **005** | Current Version: | 3.1.0 |
|---|---|---|---|---|

*3G specification number ↑* *↑ CR number as allocated by 3G support team*

For submision to TSG SA1 *list TSG meeting no. here ↑*

for approval [X] for information [ ] *(only one box should be marked with an X)*

*Form: 3G CR cover sheet, version 1.0* *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/3GCRF-xx.rtf*

**Proposed change affects:** *(at least one should be marked with an X)*

USIM [ ] ME [ ] UTRAN [ ] Core Network [X]

**Source:** TSG SA1 **Date:** 29.11.1999

**Subject:** U.S. specific Emergency Services requirements included as an informative annex.

**3G Work item:** Location Services

**Category:** *(only one category shall be marked with an X)*

| | | |
|---|---|---|
| F | Correction | [ ] |
| A | Corresponds to a correction in a 2G specification | [ ] |
| B | Addition of feature | [ ] |
| C | Functional modification of feature | [ ] |
| D | Editorial modification | [X] |

**Reason for change:** "Mirror" corresponding Release 98 CR.

**Clauses affected:** New annex added.

| | | | | |
|---|---|---|---|---|
| **Other specs affected:** | Other 3G core specifications | | → List of CRs: | |
| | Other 2G core specifications | | → List of CRs: | |
| | MS test specifications | | → List of CRs: | |
| | BSS test specifications | | → List of CRs: | |
| | O&M specifications | | → List of CRs: | |

| | |
|---|---|
| **Other comments:** | |

****** FIRST MODIFIED SECTION ******

# 4.2 Quality of Service

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****** NEXT MODIFIED SECTION (new annex) ******

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