

ETSI TS 101 724 V8.9.0 (2004-06)

Technical Specification

**Digital cellular telecommunications system (Phase 2+);
Location Services (LCS);
Functional description;
Stage 2
(3GPP TS 03.71 version 8.9.0 Release 1999)**

GSM®
GLOBAL SYSTEM FOR
MOBILE COMMUNICATIONS

3GPP™

ETSI 

Reference

RTS/TSGS-020371v890

Keywords

GSM

ETSI

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1 Scope

The present document defines the stage-2 service description for the LoCation Services (LCS) feature on GSM, which provides the mechanisms to support mobile location services of operators, which are not covered by standardized GSM services. CCITT I.130 [4] describes a three-stage method for characterization of telecommunication services, and CCITT Q.65 [5] defines stage 2 of the method.

The LCS feature is a network feature and not a supplementary service. This version of the stage 2 service description covers aspects of LCS e.g., the functional model, architecture, positioning methods, message flows etc.

2 References

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- [1] GSM 01.04: "Digital cellular telecommunications system (Phase 2+); Abbreviations and acronyms".
- [2] GSM 02.71: "Digital cellular telecommunications system (Phase 2+); Location Services (LCS); Service description; Stage 1".
- [3] GSM 03.07: "Digital cellular telecommunications system (Phase 2+); Restoration Procedures".
- [4] GSM 03.41: "Digital cellular telecommunication system (Phase 2+); Technical realization of Short Message Service Cell Broadcast (SMSCB)".
- [5] GSM 03.49: "Digital cellular telecommunication system (Phase 2+); Example protocol stacks for interconnecting Cell Broadcast Centre (CBC) and Mobile-services Switching Centre (MSC)".
- [6] GSM 03.78: "Digital cellular telecommunications system (Phase 2+); Customized Application for Mobile network Enhanced Logic (CAMEL) Phase 3; Stage 3".
- [6a] GSM 04.06: "Digital cellular telecommunications system (Phase 2+); Mobile Station - Base Station System (MS - BSS) interface Data Link (DL) layer specification".
- [7] GSM 04.08: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface layer 3 specification".
- [8] GSM 04.31: "Digital cellular telecommunications system (Phase 2+); Location Services (LCS); Mobile Station (MS) – Serving Mobile Location Center (SMLC); Radio Resource LCS Protocol (RRLP)".
- [9] GSM 04.71: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface layer 3 Location Services (LCS) specification".
- [10] GSM 08.08: "Digital cellular telecommunications system (Phase 2+); Mobile-services Switching Centre – Base Station System (MSC-BSS) interface; Layer 3 specification".
- [11] GSM 08.31: "Digital cellular telecommunications system (Phase 2+); Location Services (LCS); Serving Mobile Location Center (SMLC) – Serving Mobile Location Center (SMLC); SMLC Peer Protocol (SMLCPP)".