ETSI TS 144 012 V14.0.0 (2017-04)

**Digital cellular telecommunications system (Phase 2+) (GSM);
Short Message Service Cell Broadcast (SMSCB)
support on the mobile radio interface
(3GPP TS 44.012 version 14.0.0 Release 14)**

3GPP A GLOBAL INITIATIVE
GSM® GLOBAL SYSTEM FOR MOBILE COMMUNICATIONS

Reference
RTS/TSGR-0644012ve00

Keywords
GSM

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (https://ipr.etsi.org/).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This Technical Specification (TS) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under http://webapp.etsi.org/key/queryform.asp.

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

Contents

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

1.1 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] Void.

[3] 3GPP TS 23.041: "Technical realization of Cell Broadcast Service (CBS)".

[4] 3GPP TS 44.004: "Layer 1; General requirements".

[5] 3GPP TS 44.006: "Mobile Station - Base Station System (MS - BSS) interface Data Link (DL) layer specification".

[6] 3GPP TS 45.002: "Multiplexing and multiple access on the radio path".

1.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 apply.

2 General description

SMSCB is a service in which short messages may be broadcast from a PLMN to Mobile Stations (MS)s. SMSCB messages come from different sources (e.g. traffic reports, weather reports). The source and subject of the SMSCB message is identified by a message identifier in the SMSCB message header. A sequence number in the SMSCB message header enables the MS to determine when a new message from a given source is available.

SMSCB messages are not acknowledged by the MS. Reception of SMSCB messages by the MS is only possible in idle mode. The geographical area over which each SMSCB message is transmitted is selected by the PLMN operator, by agreement with the provider of the information.

A SMSCB message is an end-to-end message that is formatted by/for the SMSCB application, and which is intended for customer viewing. Its format is described in detail in 3GPP TS 23.041. A CB message is any message sent on the basic or extended CBCH (see 3GPP TS 45.002). It can be an occurrence of a SMSCB message, or a schedule message.

The SMS Cell Broadcast service is designed to minimize the battery usage requirements for a MS. A MS can read the first part of a CB message and then decide whether or not to read the rest of the message. In addition, the network may broadcast Schedule Messages, providing information in advance about the CB messages that will be sent immediately afterwards. The MS may use this scheduling information to restrict reception to those messages the customer is interested in receiving. This SMSCB DRX feature is optional in the network and the MS.

2.1 Scheduling Information

The network supporting the SMSCB DRX feature transmits Schedule Messages. A Schedule Message includes information about a number of immediately following consecutive CB messages, planned for that cell. The length of