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GLOBAL SYSTEM FOR
MOBILE COMMUNICATIONS

Digital cellular telecommunications system (Phase 2+);
Network Identity and Timezone (NITZ)
Service description, Stage 1
(GSM 02.42)

ETSI

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Foreword

This Global System for Mobile communications Technical Specification (GTS) has been produced by the Special Mobile Group (SMG) Technical Committee (TC) of the European Telecommunications Standards Institute (ETSI).

This GSM Technical Specification (GTS) describes the feature Network Identity and Timezone (NITZ).

GTS are produced by TC-SMG to enable the GSM Phase 2+ specifications to become publicly available, prior to submission for the formal ETSI standards approval procedure to become European Telecommunications Standards (ETS). This ensures the earliest possible access to GSM Phase 2+ specifications for all Manufacturers, Network operators and implementors of the Global System for Mobile communications.

The contents of this GTS are subject to continuing work within TC-SMG and may change following formal TC-SMG approval. Should TC-SMG modify the contents of this GTS it will then be republished by ETSI with an identifying change of release date and an increase in version number as follows:

Version 5.x.y

where:

y   the third digit is incremented when editorial only changes have been incorporated in the specification;

x   the second digit is incremented for all other types of changes, i.e. technical enhancements, corrections, updates, etc.

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1   Scope

This Global System for Mobile communications Technical Specification (GTS) describes the feature Network Identity and Timezone (NITZ).

This feature provides the means for serving PLMNs to transfer current identity and the local timezone to Mobile Stations (MS)s, and for the MSs to store and use this information. This enhances roaming by permitting accurate indication of PLMN identities that are either newer than the Mobile Equipment (ME) or have changed their name since the ME was sold. Additionally timezone information can be utilized by MEs as desired.

2   Normative references

This GTS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this GTS only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

[1]   GSM 01.04 (ETR 350): "Digital cellular telecommunications system (Phase 2+); Abbreviations and acronyms".

[2]   GSM 02.07   (ETS 300 906):   "Digital   cellular   telecommunications   system (Phase 2+); Mobile Stations (MS) features".

3   Definitions and abbreviations

In addition to the following definitions, abbreviations used in this specification are listed in GSM 01.04.

NITZ   The feature Network Identity and Timezone as described in this specification.
UCS2   Universal Character Set 2
UT   Universal Time
LTZ   Local Time Zone, the offset from UT applying in that locality, including any adjustments for summer time, etc.

4   Description

The feature Network Identities and Timezone shall make it possible for a serving PLMN to transfer its current identity and LTZ to MSs, and for the MS to store and use this information. The feature significantly enhances roaming as itenables the accurate indication of network identities that are either newer than the ME or have changed their name since the ME was manufactured or sold. Additionally timezone information can be utilized by MEs as desired.

When using the default GSM character set, the serving PLMN shall make both a "short" and a "long" name available to the MS. As an alternative or, in addition, to the default GSM character set, the serving PLMN can make a name available in UCS2. The MS shall be free to choose one of these names depending upon its own characteristics and/or limitations, such as those of its display.

> NOTE: Guidance is sought, particularly from non-European operators, as to whether long and short name is required in UCS2 format.

The Network Operator may change the network identity at any time. However the change of network identity need not force immediate transfer of information to the MS.

The serving PLMN shall make Local Time Zone (LTZ) available to the MS as an offset from Universal Time in units of no greater than 15 minutes.

For PLMNs which cover more than one timezone, it is assumed that the Network Operator will arrange for boundaries between subsets of the PLMN service area to be approximately aligned with timezone boundaries. When an MS changes Local Time Zone the PLMN is not required to immediately transfer new time zone information. Similarly the PLMN will transfer the LTZ changes arising from summer/winter adjustments when convenient to the network operator.

The MS will implement the new time zone information at an appropriate time following receipt.

The information passed to MSs supporting the NITZ feature is controlled by the serving PLMN Operator through administrative interaction. The interface necessary to support this administrative interaction is outside the scope of this specification.

5 Applicability

Network Identity and Timezone is both an optional network feature and an optional MS feature.

The NITZ feature is not intended to replace the existing method of PLMN Indication, nor is it intended to discharge the administration and maintenance of the associated MoU Permanent Document, SE13.

6 Normal procedure

6.1 Transfer of NITZ information

Network name and timezone information can be transferred from the serving PLMN to the MS:

1) Upon registering on the network.

2) When the MS geographically relocates to a different Local Time Zone.

3) When the network changes its Local Time Zone, e.g. between summer and winter time.

4) When the network changes its identity.

Transfer of relevant information shall not unduly consume scarce network resources.

6.2 Use of NITZ information

Relevant information shall be presented to the MS user at the earliest opportunity.

It is expected that the MS will display the most up to date information transferred to it.

Switching off the MS should not cause the updated name of the network(s) to be deleted.

Removal of the SIM should not cause the updated name of the network(s) to be deleted.

However, the number of different network identities retained in the ME is a manufacturer issue.

History

Document history	
June 1996	Creation of Version 5.0.0
July 1996	Publication of Version 5.0.0
November 1996	Publication of Version 5.0.1