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

***TSGS#6(99) 515***

**Source:** **Chairman, Secretary S1**

**Title:** **Status Report of SA_WG1 (Services)**

**Document for:** **Information and Decision**

**Agenda Item:** **5.1.1**

# TSG SA1 STATUS REPORT

## 1 General Overview of Progress

TSG SA WG1/SMG1 (S1 for short) has held one plenary meeting held in San Diego, USA from the 30th November to the 3rd December 1999. It was chaired by Mr Alan Cox (Vodafone AirTouch), the secretary was Mr Michael Clayton from the MCC and it was hosted by Pacific Bell.

The meetings have been extremely busy, focussing on completing Release 99 together with addressing feedback from other working groups. There has also been a brief start on planning for Release 2000.

## 2 Summary of Inputs to SA

The list of documents submitted is attached in Annex 3, and the details are summarised here for clarity.

### 2.1 Specifications

One report is submitted to SA for **Information** and one specification for **Approval**.

The specification submitted to SA for **Information** is:- TR 21.905 v 1.0.0 **3GPP Vocabulary** report which has been prepared from the input from RAN (SA-99530).

The specification submitted to SA for **Approval** is:-

22.140 v 2.0.0, **Multi-Media Messaging** stage 1 description (SA-99529);

### 2.2 Change Requests

S1 in this period has generated a number of change requests that reflect a series of clarifications and corrections, especially to ensure a coherent Release 99.

Change requests to GSM specifications that are also transferred into 3GPP are included, even if they impact earlier releases and in these cases, the CR will be shown subsequently to SMG plenary for information. Clearly, changes affecting Release 99 in the 22.xxx series are the responsibility of SA, but those relating to 22.0xx will informed to

SMG. Any change to an 02.xx specification not transferred to 3GPP is considered out of scope of this SA plenary and will be submitted to SMG for approval.

### 2.2.1 Follow me

One change request has been elaborated for R99 on the introduction of the rôle of a "Follow Me service supervisor". When an initiating subscriber has, by mistake, not erased his previous FM registration, with respect to a remote party, no other initiating subscriber is able to register FM with this remote party.

The FM service supervisor can erase any previous registration to a remote party with an appropriate control procedure (forced erasure).

The change can be found in document 517/99.

| Spec | CR | Rev | Phase | Subject | CAT | Vers | New Vers | TSG Meeting | TSG Doc.No. | Pres |
|---|---|---|---|---|---|---|---|---|---|---|
| 02.94 | A001 | | R99 | CR to 02.94 on Introduction of the role of a "Follow Me service supervisor" | B | 8.0.0 | 8.1.0 | S1 #6 | S1-991015 | |

### 2.2.2 CCBS and ASCI services

The interaction of CCBS and the Voice Group Call Service and Voice Broadcast Service with CCBS is not defined and it was decided that it should be. Therefore, two change requests, one to 02.68 and the other to 02.69, are proposed to make the CCBS supplementary service only applicable for dispatchers and not for VGCS or VBS service subscribers.

A CR to 22.004 on Applicability of CCBS to TS91/TS92 is also presented. Whilst it was agreed at SA#5 that 02.68 and 02.67 should remain in GSM and not be transferred, the reference to the applicability is still valid for R'99.

The three CRs are presented in document 518/99.

| Spec | CR | Rev | Phase | Subject | CAT | Vers | New Vers | TSG Meeting | TSG Doc.No. | Pres |
|---|---|---|---|---|---|---|---|---|---|---|
| 02.68 | A001 | | R99 | Interaction with CCBS service | F | 8.0.0 | 8.1.0 | S1 #6 | S1-991040 | |
| 02.69 | A001 | | R99 | Clarification of interaction with CCBS service | F | 8.0.0 | 8.1.0 | S1 #6 | S1-991041 | |
| 22.004 | 002 | | R99 | Clarification of the applicability of CCBS service to TS91/92 | F | 3.0.1 | 3.1.0 | S1#06 | S1-991042 | |

### 2.2.3 Editorial changes

A series of editorial CR's has been produced together with MCC experts in order to make the 02 series specifications applicable to both GSM and UMTS when needed, (references, terminology, etc).

This effort represents the outstanding work reported at SA #5 with the exception of the work reported in a liaison statement to SA in document 531/99.

The CRs contained in document 519/99 are:

| Spec | CR | Rev | Phase | Subject | CAT | Vers | New Vers | TSG Meeting | TSG Doc.No. | Pres |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.001 | 001 | | R99 | Mainly an editorial update for GSM/3GPP use | D | 3.0.0 | 3.1.0 | S1#06 | S1-991076 | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.003 | 001 | | R99 | Mainly an editorial update for GSM/3GPP use | D | 3.0.0 | 3.1.0 | S1#06 | S1-991025 | |
| 22.030 | 006 | | R99 | Mainly an editorial update for GSM/3GPP use. | C | 3.1.0 | 3.2.0 | S1#06 | S1-991029 | |
| 22.081 | 002 | | R99 | Editorial update to TS 22.081 in order to include 3G systems | D | 3.0.1 | 3.1.0 | S1#06 | S1-99908 | |
| 22.085 | 002 | | R99 | Editorial update for GSM/3GPP use. | D | 3.0.1 | 3.1.0 | S1#06 | S1-99999 | |
| 22.101 | 026 | | R99 | Mainly editorial update for GSM/3GPP use. | D | 3.7.0 | 3.8.0 | S1#06 | S1-991026 | |
| 22.105 | 021 | | R99 | Mainly editorial update for GSM/3GPP use. | D | 3.6.0 | 3.7.0 | S1#06 | S1-991027 | |

### 2.2.4 General Bearer Services

Two CRs are presented on General Bearer services to TS 22.002.

The first is concerns the Addition of 33.6kbit/s to Fixed Network User Rate. General bearer service user data characteristics need to be enhanced to provide the Frame Tunnelling Mode (FTM) and Multimedia Calls to reflect N1 and N3 result of study. The additions are:

- 3G-H.324/M is used as the multimedia system for the CS domain.
- “H.223 & H.245” which is  a new indication is added to indicate 3G-H.324/M calls.
- 3G-H.324/M calls are supported over 64kbit/s(UDI), 56kbit/s(RDI), 33.6kbit/s(3.1kHz audio), 28.8kbit/s(3.1kHz audio) and 32kbit/s(UDI)
- 3G-H.324/M calls are provided by the use of synchronous general bearer service (BS 30).

The second deals with the issue that 22.002 does not describe PS domain requirements properly and the requirements are already included in other 22.-series specifications. Thus scope on 22.002 is only limited to CS domain. Further basic packet mode has been removed.

The CRs presented in document 520/99 are:

| Spec | CR | Rev | Phase | Subject | CAT | Vers | New Vers | TSG Meeting | TSG Doc.No. | Pres |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.002 | 003 | | R99 | Addition of new general bearer service user data characteristics for 33.6kbit/s modem, FTM and multimedia calls | B | 3.1.0 | 3.2.0 | S1#06 | S1-991008 | |
| 22.002 | 004 | | R99 | 22.002 made only applicable to CS Domain. | C | 3.1.0 | 3.2.0 | S1#06 | S1-991075 | |

### 2.2.5 Handover

A change request to 22.129 is provided in document 521/99 on the Performance requirements for real time services and requirements for handover between UMTS and GPRS.

The performance requirements for UMTS to UMTS handover of real time services has been dealt with:

- The temporal discontinuity experienced by real time services should be shorter than the same event in GSM.

And on Addressing requirements for handover between UMTS and GPRS.

- Handover to GPRS R97 core network shall be implemented.
- Handover of real time PS services to GPRS R99 is out of the scope of UMTS R99 phase 1 and shall be considered in subsequent phases. (GPRS can't handle QoS requirements other than best effort)

In addition, and editorial CR to RS 22.129 is provided in document 553/99.

| Spec | CR | Rev | Phase | Subject | CAT | Vers | New Vers | TSG Meeting | TSG Doc.No. | Pres |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.129 | 011 | | R99 | Performance requirements for real time services and requirements for handover between UMTS and GPRS | C | 3.1.0 | 3.2.0 | S1#06 | S1-99868 | |
| 22.129 | 008 | | R99 | Editorial CR to 22.129 | D | 3.1.0 | 3.2.0 | S1#06 | S1-99877 | |

### 2.2.6 Location Services

Two CRs are presented on the LCS specifications 02.71 and 22.071. These CRs introduce an informative annex providing the USA FCC Wireless E911 Rules. They are presented in document 522/99.

| 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 | | | | |
| 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 | |

Also in SA1, a proposed liaison statement to CN1, CN2, CN3, S2 was presented on Clarification of dealing with LCS. There is a proposal that the LCS was R99 item. But it is not clear when the LCS will be provided and CN1, CN2, CN3. **Therefore, SA1 would like to confirmation whether LCS is supported at release 99 or Release 2000.**

Since it would probably be too late to get an answer, this LS is being brought to SA for consideration. It can be found in annex 1.

### 2.2.7 Multiple Calls and PDP Contexts

Document 523/99 contains two sets of two CRs on similar subjects of handover when multiple calls or PDP contexts are active.

The first is an open issue on 3G to 2G Handover (Packet Switched domain) from TSG CN WG2. When a user with two PDP contexts (connections) (e.g. Telephony and Data) hands over to a network which will only support one connection, then which service should remain active?

The first of the two CRs proposes a solution and the second transfers the text which caused query to the appropriate specification.

The next set of two CRs concerns a similar issue of the handover of multiple calls.

The CRs are provided in document 523/99.

| Spec | CR | Rev | Phase | Subject | CAT | Vers | New Vers | TSG Meeting | TSG Doc.No. | Pres |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.129 | 009 | | R99 | 3G/2G handover in the PS Domain | D | 3.1.0 | 3.2.0 | S1#06 | S1-991019 | |
| 22.135 | 001 | | R99 | Transfer of Handover chapter to 22.129 | D | 3.0.0 | 3.1.0 | S1#06 | S1-991020 | |
| 22.129 | 010 | | R99 | Handover of a Multicall | B | 3.1.0 | 3.2.0 | S1#06 | S1-991066 | |
| 22.135 | 002 | | R99 | Clarification on handling of multiple bearers | D | 3.0.0 | 3.1.0 | S1#06 | S1-991065 | |

### 2.2.8 Network Selection

Document 524/99 contains three changes; two to 22.011 and one to 22.101. There was some debate in SA1 regarding the need to keep 22.011 or whether to put the changes into 22.101. It has been decided that 22.011 should be retained, but that some of the proposed changes to the last meeting are more appropriate to 22.101. Therefore, these changes are provided as a package to determine the split between the two specifications.

| Spec | CR | Rev | Phase | Subject | Cat | Vers | New Vers | TSG Meeting | TSG Doc.No. | Pres |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.011 | 002 | | R99 | COMPACT Cell Selection Part 2 | B | 3.0.1 | 3.1.0 | S1#06 | S1-991032 | |
| 22.011 | 003 | | R99 | Network Selection | B | 3.0.1 | 3.1.0 | S1#06 | S1-991056 | |
| 22.101 | 029 | | R99 | Emergency Call | B | 3.7.0 | 3.8.0 | S1#06 | S1-991031 | |

### 2.2.9 GPRS

A number of change requests to GPRS 22.060 are collected in document 525/99.

The first introduces the support of the SMS Cell broadcast when a MS is GPRS attached as this service has become important for many operators.

Since 3GPP SA2 have for GSM/UMTS release 99 included support of Mobile IP in the architecture for the core network, the second CR includes the corresponding requirements for this in 3GPP SA1 specifications.

The third CR takes out the anonymous service from GPRS as there is a lack of support for this feature in both S1 and S2.

| Spec | CR | Rev | Phase | Subject | CAT | Vers | New Vers | TSG Meeting | TSG Doc.No. | Pres |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.060 | 008 | | R99 | GPRS & SMS-CB Interworking | B | 3.1.0 | 3.2.0 | S1#06 | S1-991049 | |
| 22.060 | 006 | | R99 | Support of Mobile IP in release 99 | B | 3.1.0 | 3.2.0 | S1#06 | S1-991010 | |
| 22.060 | 007 | | R99 | Deletion of Anonymous Service | C | 3.1.0 | 3.2.0 | S1#06 | S1-991044 | |

### 2.2.10 CAMEL

Two CRs to 22.078 regarding CAMEL are provided in document 526/99.

Since MSP Phase 2 requires CLI to be provisioned per profile, then different CLIR subscription information will be stored in the CSE. For an MO call, the CSE needs the ability to set the presentation indicator to Withheld. The change to do this is provided in 22.078-030.

In order to have a more flexible handling, TSG CN WG2 have agreed to enhance the capabilities of dialled services by allowing the CSE to bar the call and to perform charging activities, i.e. to add Free Format Data to the Call Data Record. This change is introduced in CR 22.078-031.

| Spec | CR | Rev | Phase | Subject | CAT | Vers | New Vers | TSG Meeting | TSG Doc.No. | Pres |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.078 | 030 | 1 | R99 | CSE ability to change CLI PI for an MO call | B | 3.1.0 | 3.2.0 | S1#06 | S1-991048 | |
| 22.078 | 031 | | R99 | Enhancement of the capabilities of dialled services | B | 3.1.0 | 3.2.0 | S1#06 | S1-991035 | |

### 2.2.11 Fixed Dialling Numbers

Document 527/99 contains a CR to 22.101 on the subject of FDN. The changes are provided to clarify the working of FDN.

| Spec | CR | Rev | Phase | Subject | CAT | Vers | New Vers | TSG Meeting | TSG Doc.No. | Presentation |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.101 | 028 | | R99 | FDN | C | 3.7.0 | 3.8.0 | S1#06 | S1-991038 | |

### 2.2.12 Support of Mobile IP in release 99

A change request to 22.100 is provided in document 528/99 since 3GPP SA2 have for GSM/UMTS release 99 included support of Mobile IP in the architecture for the core network.

The corresponding requirements for this should be included in 3GPP SA1 specifications.

| Spec | CR | Rev | Phase | Subject | CAT | Vers | New Vers | TSG Meeting | TSG Doc.No. | Pres |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.100 | 028 | | R99 | Support of Mobile IP in release 99 | B | 3.4.0 | 3.5.0 | S1#06 | S1-991047 | |

### 2.2.13 Registration, Interrogation and Restriction of Packet Domain

At the last meeting, SA1 received some comments on TS 22.135 regarding the definition of Multicall as a **basic** service. However, the stage 1 also defines subscriber control procedures (registration, interrogation, …) which are more appropriate to a **supplementary** service.

In view of the short time available to develop the stage 2 & 3 specifications for Multicall, the scope of Multicall for Release 99 has been restricted to omit the procedures for subscriber control and interrogation. This would allow the development of the specifications to be concentrated in TSG-N2.

TSG-N2 have taken the working assumption that this restriction of the scope of Multicall for Release 99 is acceptable to TSG-S1 which confirms the working assumption.

The changes are provided in document 554/99.

| Spec | CR | Rev | Phase | Subject | CAT | Vers | New Vers | TSG Meeting | TSG Doc.No. | Pres |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.135 | 003 | | R99 | Registration, Interrogation and Restriction of Packet Domain | C | 3.0.0 | 3.1.0 | S1#06 | S1-99963 | |

## 2.3 Outstanding Issues

### 2.3.1 Network Identity and Timezone

At the last meeting of SA1 a proposal was provided to change the time that is transmitted

using the NITZ feature, due to inconsistent implementations. In the stage 1 specification it is the Universal Time that should be transmitted to the mobile station, however, in GSM 04.08 and 03.40 there is some text suggesting that the local time should be sent.

SA1 were **not** able to agree to this change, or to identify which is correct. Therefore, the CR and the discussion document are presented for information in the annex 2 of this report

The manufacturers attending SA1 have been asked to investigate their implementations of NITZ prior to SA plenary and to be aware of their preference.

SA is, therefore, being asked to allow debate, if required, and to resolved this issue.

## 3 Release 2000

Since SA1 has concentrated on R'99, there was only a brief discussion on this topic in the plenary meeting. It was agreed that S1 must identify the service and architecture requirements for R'2000 'top down'. It was suggested that in general, there would be similar service requirements as R'99, but that new architectures might provide a more efficient solution to these needs, in particular for IP type services. Cost effectiveness and efficiency would become very important in an increasingly competitive market place.

Due to the interest of S1 in defining new requirements for architectures, it was suggested that a cross-group ad-hoc might also be useful.

## 4 Outlook for future meetings

Although it is anticipated that the great majority of work for Release 99 is now stable, there is a likely continuation of further CRs for clarification/correction or to reflect certain aspects that prove too difficult for other groups to complete during the time available. These may therefore be either simplified or delayed until Release 2000. No new requirements are anticipated for Release 99.

## 5 Planned meetings of S1

| | | |
|---|---|---|
| S1#7 | 7 – 11 February 2000 | Sophia Antipolis, hosted by ETSI |
| S1#8 | 3 – 7 April 2000 | Host Invited |
| S1#9 | 17 – 21 July 2000 | Host Invited |
| S1#10 | 13 – 17 November 2000 | Host Invited |

The chairman would like to express particular thanks to Tommi Kokkola (vice-chairman) and the secretary, Michael Clayton, in preparing the information for this report.

Alan Cox

**Annex 1 LCS as a part of R'99**

*3GPP TSG SA S1#6* *S1-99 99 1074*

San Diego, November 29- December 3, 1999

**Source:** **NTT DoCoMo**

**Document for:** Approval

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**To:** 3GPP CN1,CN2, CN3, S2

**Source:** 3GPP S1

**Title:** The clarification of dealing with LCS

S1 proposed that the LCS was R99 item. But it is not clear when the LCS will be provided.

S1 would like to ask CN1, CN2, CN3, and S2 to confirm that the LCS is supported at release 99 or Release 2000.

**Annex 2 NITZ**

**TSG-SA Working Group 1 (Services) meeting #6 TSG S1 (99) 1021**

**San Diego, USA 29th Nov – 3rd Dec 1999 Agenda Item: 6.15**

**Source: Ericsson**

# Ambiguity in NITZ specifications

When looking into the details of NITZ implementation it has become clear that the GSM/ 3GPP specifications are ambiguous in terms of what time information the MS should assume is sent to it from the network.

The following is an extract from NITZ Stage 1 (02.42/ 22.042), section 4:

*The feature Network Identities and Timezone shall make it possible for a serving PLMN to transfer its current identity,* ***universal time*** *and LTZ to MSs, and for the MS to store and use this information*

*:*

*As a network option, it shall be possible to send* ***universal time (UT)*** *by the network. Time information shall include: Year, Month, Day, Hour, Minute, Second and Timezone. The expected accuracy of the time information is in the order of minutes.*

In contradiction to this, the detailed implementation specification (04.08/ 24.008) provides details on how the *Time Zone and Time* IE is coded, by referencing the time formats specified in GSM 03.40, which clearly states that the **local time** is sent (extract from GSM 03.40: Section 9.2.3.11):

*The Service-Centre-Time-Stamp, and any other times coded in this format that are defined in this specification, represent the time local to the sending entity.*

Since the definition of time representation in 03.40 is much older, and much more widely used than NITZ, it is proposed that the NITZ Stage 1 spec is changed to align with this definition in 03.40.

Hence, in order to solve the conflict, the references to "Universal time" in the NITZ stage 1 should be changed to "Local time". It shall be noted that from a functional point of view, the MS will be able to derive the same information, i.e. UT can be calculated when Local time and Time zone is provided.

These changes are provided in the attached CR.

# 3G CHANGE REQUEST

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

| 22.042 | CR | 002 | Current Version: | 7.1.0 |
|---|---|---|---|---|

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

For submision to TSG SA#6 *list TSG meeting no. here ↑*

| | | |
|---|---|---|
| for approval | X | *(only one box should* |
| for information | | *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 [X] UTRAN [ ] Core Network [X]

**Source:** SA WG1 **Date:** 1999-12-01

**Subject:** Removal of NITZ ambiguity in specification

**3G Work item:** NITZ

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

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

**Reason for change:** An ambiguity between specs on NITZ has been discovered, in the context of what time (universal or local) is sent from the network to the MS. This CR aligns the NITZ Stage 1 description with the 24.008 and 03.40 specifications, clarifying that it is the local time which is sent.

**Clauses affected:** 3, 4

**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:**

help.doc

<--------- double-click here for help and instructions on how to create a CR.

## 1 Scope

The present document describes the feature Network Identity and Timezone (NITZ).

This feature provides the means for serving PLMNs to transfer current identity, time, Daylight Saving Time 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 time, Daylight Saving Time and timezone information can be utilised by MEs as desired.

## 2 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.
- For this Release 1999 document, references to GSM documents are for Release 1999 versions (version 8.x.y).


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

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

[3] TS 24.008: "Mobile radio interface layer 3 specification; Core Network Protocols - Stage 3".

[4] TS 23.038: "Alphabets and Languages".


## 3 Definitions and abbreviations

In addition to the following definitions, abbreviations used in the present document are listed in GSM 01.04 [1] and TR 21.905 [2].

| | |
|---|---|
| NITZ | The feature Network Identity and Timezone as described in the present document. |
| UCS2 | Universal Character Set 2 |
| UT | Universal Time |
| LT | Local Time, the time applying in the locality sending the NITZ information |
| LTZ | Local Time Zone, the offset from UT applying in that locality, including any adjustments for summer time, etc. |
| DST | Daylight Saving Time. Adjustment for summer time. |

## 4 Description

The feature Network Identities and Timezone shall make it possible for a serving PLMN to transfer its current identity, local time, DST and LTZ to MSs, and for the MS to store and use this information. Each one of these elements is optional. 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 time and timezone information can be utilised by MEs as desired.

When using the default character set (see TS 23.038 [4]), 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 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.

As a network option, it shall be possible to send local time (LT) by the network. Time information shall include: Year, Month, Day, Hour, Minute, Second, Timezone and DST. The expected accuracy of the time information is in the order of minutes.

NOTE: Local time indicates the time at which this information element (see TS 24.008 [3]) may have been sent by the network. Thus it can be assumed that the accuracy of the time information when it arrives at the MS is usually within a couple minutes.

The serving PLMN shall make Local Time Zone (LTZ) available to the MS as an offset from Universal Time in units of 15 minutes.

When the LTZ is compensated for DST (summertime), the serving PLMN shall provide a DST parameter to indicate this. The adjustment for DST can be +1h or +2h.

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 the present document.

## 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.

## Annex 3 Documents provided to this Plenary

| Tdoc | Title |
|---|---|
| SP-99 515 | Status Report of SA_WG1 (Services) |
| SP-99 516 | Slide presentation of Status Report of SA_WG1 (Services) |
| SP-99 517 | CR to 02.94 on Introduction of the rôle of a " Follow Me service supervisor:" |
| SP-99 518 | Interaction of ASCI services with CCBS service |
| SP-99 519 | Various editorial change requests to SA1 3G Specifications |
| SP-99 520 | Various CRs to 22.002 |
| SP-99 521 | CR to 22.129 on Performance requirements for real time services and requirements for handover between UMTS and GPRS |
| SP-99 522 | CRs on LCS specific Emergency Services requirements included as an informative annex |
| SP-99 523 | CRs to 22.129 and 22.135 on handover of multiple connections |
| SP-99 524 | Changes to 22.011 and 22.101 on network selection and Emergency call |
| SP-99 525 | Various CRs to 22.060 on GPRS |
| SP-99 526 | Various CRs to 22.078 on CAMEL |
| SP-99 527 | CR to 22.101 on FDN |
| SP-99 528 | CR to 22.100 on Support of Mobile IP in release 99 |
| SP-99 529 | 22.140 on Multimedia Messaging stage 1 V2.0.0 |
| SP-99 530 | Vocabulary for 3GPP Specifications (3G TR 21.905 version 1.0.0) |
| SP-99 531 | Liaison statement on Transfer of Specifications to 3GPP |
| SP-99 553 | Editorial CR to TS 22.129 V 3.1.0 |
| SP-99 554 | CR to TS 22.135 V 3.0.0 on Registration, Interrogation and Restriction of Packet Domain |