ETSI SMG3 Plenary Meeting #7, Madrid, Spain 13th – 15th March 2000

Agenda item: 5.1.3

Source: TSG_N WG1

Title: CRs to 3G Work Item NITZ

Introduction:

This document contains "4" CRs on **Work Item NITZ**, that have been agreed by **TSG_N WG1**, and are forwarded to **TSG_N Plenary** meeting #7 for approval.

	Tdoc	Spec	CR	R ev	C A T	Rel.	Old Ver	New Ver	Subject
N	V1-000194	04.08	CRA947	2	F	R96	5.14.0	5.15.0	Clarification of NITZ time stamp coding
N	V1-000196	04.08	CRA949	1	C	R97	6.7.0	6.8.0	Clarification of NITZ time stamp coding
N	N1-000197	04.08	CRA951	1	C	R98	7.4.0	7.6.0	Clarification of NITZ time stamp coding
N	V1-000198	24.008	CR096	1	C	R99	3.2.1	3.3.0	Clarification of NITZ time stamp coding

3GPP/SMG Meeting #10 Abiko, Japan, 11-14 Jan 2000

Document N1-000194 Revision of N1-000132

	CH	ANGE RE	QUEST	Please s page for		ile at the bottom of th to fill in this form corr	
		04.08 C	R A94	7r2	Current Version	on: 5.14.0	
GSM (AA.BB) or 3G	(AA.BBB) specification num	ber↑	↑ (CR number as	s allocated by MCC s	support team	
For submission t	eeting # here ↑	for appro	ion		strate non-strate	gic use or	nly)
Proposed chang (at least one should be m			ME X	s form is availai		rg/Information/CR-Form Core Network	_
Source:	CN1				Date:	13.1.2000	
Subject:	Clarification of NI	TZ time stamp o	coding				
Work item:	NITZ						
Category: A (only one category B shall be marked C with an X)	Correction Corresponds to a Addition of feature Functional modificate	e cation of feature		ase	Release:	Phase 2 Release 96 Release 97 Release 98 Release 99 Release 00	X
Reason for change:	Alignment of the Simplementations.	Stage 3 with Sta	ige 1 to avoid	d misintei	rpretations and	d incompatible	
Clauses affected	1: 10.5.3.8 and	10.5.3.9					
affected:	Other 3G core spec Other GSM core sp MS test specificatio BSS test specifications O&M specifications	ecifications ns	→ List 0 → List 0	f CRs: f CRs: f CRs:			
	TSGS #6 decided tl 99637.	nat stage 1 is ri	ght and stag	e 3 shoul	d be changed,	see tdoc SP-	
help.doc	< double-clic	k here for help	and instructi	one on h	ow to create a	CB	

9.2.15a MM information

This message is sent by the network to the mobile station to provide the mobile station with subscriber specific information. See table 9.51a/GSM 04.08.

Message type: MM INFORMATION

Significance: dual

Direction: network to mobile station

Table 9.51a/GSM 04.08 MM INFORMATION message content

IEI	Information element	Type / Reference	Presence	Format	Length
	Mobility management protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Skip Indicator	Skip Indicator 10.3.1	M	V	1/2
	MM Information message type	Message type 10.4	M	V	1
43	Full name for network	Network Name 10.5.3.5a	О	TLV	3-?
45	Short name for network	Network Name 10.5.3.5a	О	TLV	3-?
46	Network time zone	Time Zone 10.5.3.8	О	TV	2
47	<u>Universal</u> Network time and time	zone Time Zone and Time 10.5.3.9	0	TV	8

9.2.15a.1 Full name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "full length name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the Location Area Identification of the cell to which the mobile station sent its Channel Request message.

9.2.15a.2 Short name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "abbreviated name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the Location Area Identification of the cell to which the mobile station sent its Channel Request message.

9.2.15a.3 Network time zone

This IE may be sent by the network. The mobile station should assume that this time zone applies to the Location Area of the cell to which the Channel Request message was sent.

9.2.15a.4 Universal time and Network time zone and time

This IE may be sent by the network. The mobile station should assume that this time zone applies to the Location Area of the cell to which the Channel Request message was sent. The mobile station shall not assume that the time information is accurate.

10.5.3.8 Time Zone

The purpose of this information element is to encode the <u>offset between universal time and</u> local timezone in steps of 15 minutes.

The *Time Zone* information element is coded as shown in figure 10.67a/GSM 04.08 and table 10.66a/GSM 04.08.

The *Time Zone* is a type 3 information element with a length of 2 octets.

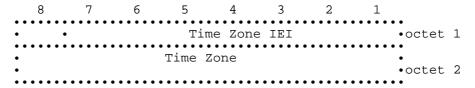


Figure 10.67a/GSM 04.08 Time Zone information element

Table 10.66a/GSM 04.08 Time Zone information element

```
• Time Zone (octet 2, bits 1-8)
• This field uses the same format as the Timezone field used in
• the TP-Service-Centre-Time-Stamp, which is defined in GSM
• 03.40, and its value shall be set as defined in GSM 02.42The

format of the TP-Service-Centre-Time-Stamp is defined in •
• GSM 03.40 and the value shall be set as defined in GSM 02.42.•
• This field is encoded in exactly the same way as the Time
• Zone field of the TP-Service-Centre-Time-Stamp in GSMá03.40
• (ETS 300 536).
```

10.5.3.9 Time Zone and Time

The purpose of the <u>is</u> timezone part of this information element is to encode the <u>offset between universal time and local timelocal timezone</u> in steps of 15 minutes.

The purpose of the <u>-and to indicate the</u> time <u>part of this information element is to encode the universal time</u> at which this information element may have been sent by the network.

The *Time Zone and Time* information element is coded as shown in figure 10.68a/GSM 04.08 and table 10.67a/GSM 04.08.

The *Time Zone and Time* is a type 3 information element with a length of 8 octets.

8 7 6	5	4	3	2	1		
•	Cime Zone	and	Time	IEI		•octet	1
•	Year	• • • •	• • • •	• • • • •	• • • • •	•octet	2
•	Month	• • • •	• • • •	• • • • •	• • • • •	•octet	3
•	Day				••••	• octet	4
:	Hour					• octet	5
•	Minute					•octet	6
•	Second				•••••	•octet	7
•	Time zo	ne		• • • • •	•••••	•octet	8

Figure 10.68a/GSM 04.08

Time Zone and Time information element

Table 10.67a/GSM 04.08 Timezone and Time information element

Year (octet 2, bits 1-8)

This field uses the same format as the Year field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Year field of the TP-Service-Centre-Time-Stamp in GSM 03.40 (ETS 300 536).

Month (octet 3, bits 1-8)

This field uses the same format as the Month field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Month field of the TP-Service-Centre-Time-Stamp in GSM 03.40 ETS 300 536).

Day (octet 4, bits 1-8)

This field uses the same format as the Day field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Day field of the TP-Service-Centre-Time-Stamp in GSM 03.40 (ETS 300 536).

Hour (octet 5, bits 1-8)

This field uses the same format as the Hour field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Hour field of the TP-Service-Centre-Time-Stamp in GSM 03.40 (ETS 300 536).

Minute (octet 6, bits 1-8)

This field uses the same format as the Minute field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Minute field of the TP-Service-Centre-Time-Stamp in GSM 03.40 (ETS 300 536).

Second (octet 7, bits 1-8)

This field uses the same format as the Second field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Second field of the TP-Service-Centre-Time-Stamp in GSM 03.40 (ETS 300 536).

Time Zone (octet 8, bits 1-8)

This field uses the same format as the Time Zone field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42. This field is encoded in exactly the same way as the Time Zone field of the TP-Service-Centre-Time-Stamp in GSM 03.40 (ETS 300 536)

NOTE: Due to ambiguities in earlier versions of the protocol specifications, some mobile stations may interpret the received NITZ time as local time. This may result in incorrect time settings in the mobile.

3GPP/SMG Meeting #10 Abiko, Japan, 11-14 Jan 2000

Document N1-000196 Revision of N1-000061

	CHANGE REQUEST Please see embedded help file at the bottom of this page for instructions on how to fill in this form correct	tly.					
COM (AA BB)	04.08 CR A949r1 Current Version: 6.7.0						
GSM (AA.BB) or 3	3G (AA.BBB) specification number ↑						
For submission to: TSGN #7 for approval X strategic Non-strategic Non-s							
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: (at least one should be marked with an X) The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc WE X UTRAN / Radio Core Network X							
Source:	CN1 <u>Date:</u> 13.1.2000						
Subject:	Clarification of NITZ time stamp coding						
Work item:	NITZ						
(only one category shall be marked	F Correction A Corresponds to a correction in an earlier release B Addition of feature C Functional modification of feature D Editorial modification Release: X Release: Rele	X					
Reason for change:	Alignment of the Stage 3 with Stage 1 to avoid misinterpretations and incompatible implementations.						
Clauses affecte	ed: 10.5.3.8 and 10.5.3.9						
Other specs affected:							
Other comments:	TSGS #6 decided that stage 1 is right and stage 3 should be changed, see tdoc SP-99637.						

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

9.2.15a MM information

This message is sent by the network to the mobile station to provide the mobile station with subscriber specific information. See table 9.2.18/GSM 04.08.

Message type: MM INFORMATION

Significance: dual

Direction: network to mobile station

Table 9.2.18/GSM 04.08: MM INFORMATION message content

IEI	Information element	Type / Reference	Presence	Format	Length
	Mobility management	Protocol discriminator	M	V	1/2
	protocol discriminator	10.2			
	Skip Indicator	Skip Indicator	M	V	1/2
		10.3.1			
	MM Information	Message type	M	V	1
	message type	10.4			
43	Full name for network	Network Name	0	TLV	3-?
		10.5.3.5a			
45	Short name for network	Network Name	0	TLV	3-?
		10.5.3.5a			
46	Network time zone	Time Zone	О	TV	2
		10.5.3.8			
47	<u>Universal</u> Network time and time zone	Time Zone and Time	О	TV	8
		10.5.3.9			

9.2.15a.1 Full name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "full length name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the Location Area Identification of the cell to which the mobile station sent its Channel Request message.

9.2.15a.2 Short name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "abbreviated name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the Location Area Identification of the cell to which the mobile station sent its Channel Request message.

9.2.15a.3 Network time zone

This IE may be sent by the network. The mobile station should assume that this time zone applies to the Location Area of the cell to which the Channel Request message was sent.

9.2.15a.4 Universal time and Network time zone and time

This IE may be sent by the network. The mobile station should assume that this time zone applies to the Location Area of the cell to which the Channel Request message was sent. The mobile station shall not assume that the time information is accurate.

9.4.19 GMM Information

This message is sent by the network at any time to sent certain information to the MS. See table 9.4.19/GSM 04.08.

Message type: GMM INFORMATION

Significance: local

Direction: network to MS

Table 9.4.19/GSM 04.08: GMM INFORMATION message content

IEI	Information Element	Type/Reference	Presence	Format	Length
	Protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Skip indicator	Skip indicator 10.3.1	М	V	1/2
	GMM Information message identity	Message type 10.4	М	V	1
43	Full name for network	Network name 10.5.3.5a	0	TLV	3 - ?
45	Short name for network	Network name 10.5.3.5a	0	TLV	3 - ?
46	Network time zone	Time zone 10.5.3.8	0	TV	2
47	Universal Network time and time zone	Time zone and time 10.5.3.9	0	TV	8

9.4.19.1 Full name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "full length name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the routing area identification of the current cell.

9.4.19.2 Short name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "abbreviated name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the routing area identification of the cell the MS is currently in.

9.4.19.3 Network time zone

This IE may be sent by the network. The mobile station should assume that this time zone applies to the routing area of the cell the MS is currently in.

9.4.19.4 Universal time and Network time zone and time

This IE may be sent by the network. The mobile station should assume that this time zone applies to the routing area the MS is currently in. The mobile station shall not assume that the time information is accurate.

10.5.3.8 Time Zone

The purpose of this information element is to encode <u>offset between universal time and</u> the local timezone in steps of 15 minutes.

The *Time Zone* information element is coded as shown in figure 10.5.83/GSM 04.08 and table 10.5.96/GSM 04.08.

The *Time Zone* is a type 3 information element with a length of 2 octets.

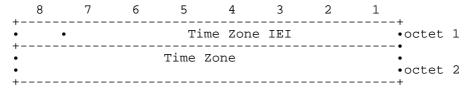


Figure 10.5.83/GSM 04.08: Time Zone information element

Table 10.5.96/GSM 04.08: Time Zone information element

```
• Time Zone (octet 2, bits 1-8)
• This field uses the same format as the Timezone field used in
• the TP-Service-Centre-Time-Stamp, which is defined in
• GSM 03.40, and its value shall be set as defined in GSM 02.42
• The format of the TP-Service-Centre-Time-Stamp is defined in
• UMTS 23.040 and the value shall be set as defined in
• UMTS 22.042.
• This field is encoded in exactly the same way as the Time
• Zone field of the TP-Service-Centre-Time-Stamp in GSM£03.40
• .
```

10.5.3.9 Time Zone and Time

The purpose of theis timezone part of this information element is to encode the offset between universal time and local timelocal timezone in steps of 15 minutes.

<u>The purpose of the and to indicate the universal time part of this information element is to encode the universal time at which this information element may have been sent by the network.</u>

The *Time Zone and Time* information element is coded as shown in figure 10.5.84/GSM 04.08 and table 10.5.97/GSM 04.08.

The *Time Zone and Time* is a type 3 information element with a length of 8 octets.

	8	7	6	5	4	3	2	1	-	
•		•	 T	ime Zon	e and	Time	IEI		•octet	. 1
•				Year					• •octet	. 2
•				Month					• •octet	. 3
•				Day					• •octet	. 4
•				Hour					• •octet	5
•				Minute					• •octet	. 6
•				Second					•octet	. 7
•				Time z	one				• octet	. 8

Figure 10.5.84/GSM 04.08: Time Zone and Time information element

Table 10.5.97/GSM 04.08: Timezone and Time information element

Year (octet 2, bits 1-8)

This field uses the same format as the Year field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Year field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Month (octet 3, bits 1-8)

This field uses the same format as the Month field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Month field of the TP-Service-Centre-Time-Stamp in GSM 03.40 ETS 300 536).

Day (octet 4, bits 1-8)

This field uses the same format as the Day field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Day field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Hour (octet 5, bits 1-8)

This field uses the same format as the Hour field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Hour field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Minute (octet 6, bits 1-8)

This field uses the same format as the Minute field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Minute field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Second (octet 7, bits 1-8)

This field uses the same format as the Second field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Second field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Time Zone (octet 8, bits 1-8)

This field uses the same format as the Time Zone field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42. This field is encoded in exactly the same way as the Time Zone field of the TP-Service-Centre-Time-Stamp in GSM 03.40)

NOTE: Due to ambiguities in earlier versions of the protocol specifications, some mobile stations may interpret the received NITZ time as local time. This may result in incorrect time settings in the mobile.

3GPP/SMG Meeting #10 Abiko, Japan, 11-14 Jan 2000

Document N1-000197 Revision of N1-000062

			CHAN	IGE I	REQI	JES	T Pleas			ile at the bottom of to fill in this form co	
			0	4.08	CR	A9	51r1	Currer	nt Versi	on: 7.4.0	
GSM (AA.BB) or 3	3G (A.	A.BBB) specifica	ation number	↑			↑ CR numbe	r as allocated	d by MCC s	support team	
For submission list expected approval	meet	ing # here ↑		for infor		X			strate n-strate	gic use	only)
Proposed char	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: (at least one should be marked with an X) The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc WE X UTRAN / Radio Core Network X										
Source:	(CN1							Date:	7.1.2000	
Subject:	(Clarification	of NITZ	time star	np codii	ng					
Work item:	1	NITZ									
(only one category shall be marked	A B C D	Correction Correspond Addition of Functional Editorial mo	feature modificati odificatior	ion of fea	ature			X	ease:	Phase 2 Release 96 Release 97 Release 98 Release 99 Release 00	X
change:		mplementa		ge o with	Clage	i to av	old IIIISIII	icipician	ons and	тоотрацые	
Clauses affecte	<u>ed:</u>	10.5.3.	.8 and 10	5.3.9							
Other specs affected:	Ot M: BS	ther 3G cor ther GSM c S test spec SS test spe &M specific	ore speci ifications cifications	fications	-	→ List → List → List	of CRs: of CRs: of CRs: of CRs: of CRs:				
Other comments:		SGS #6 dec 9637.	cided that	stage 1	is right a	and sta	age 3 sho	uld be ch	anged,	see tdoc SP-	
help.doc											

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

9.2.15a MM information

This message is sent by the network to the mobile station to provide the mobile station with subscriber specific information. See table 9.2.18/GSM 04.08.

Message type: MM INFORMATION

Significance: dual

Direction: network to mobile station

Table 9.2.18/GSM 04.08 MM INFORMATION message content

IEI	Information element	Type / Reference	Presence	Format	Length
	Mobility management	Protocol discriminator	M	V	1/2
	protocol discriminator	10.2			
	Skip Indicator	Skip Indicator	M	V	1/2
		10.3.1			
	MM Information	Message type	M	V	1
	message type	10.4			
43	Full name for network	Network Name	О	TLV	3-?
		10.5.3.5a			
45	Short name for network	Network Name	О	TLV	3-?
		10.5.3.5a			
46	Network time zone	Time Zone	О	TV	2
		10.5.3.8			
47	<u>Universal Network</u> time and time zone	Time Zone and Time	О	TV	8
	time zone	10.5.3.9			
48	LSA Identity	LSA Identifier	О	TLV	2-5
		10.5.3.11			

9.2.15a.1 Full name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "full length name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the Location Area Identification of the cell to which the mobile station sent its Channel Request message.

9.2.15a.2 Short name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "abbreviated name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the Location Area Identification of the cell to which the mobile station sent its Channel Request message.

9.2.15a.3 Network time zone

This IE may be sent by the network. The mobile station should assume that this time zone applies to the Location Area of the cell to which the Channel Request message was sent.

9.2.15a.4 <u>Universal time and Network time zone and time</u>

This IE may be sent by the network. The mobile station should assume that this time zone applies to the Location Area of the cell to which the Channel Request message was sent. The mobile station shall not assume that the time information is accurate.

9.2.15a.5 LSA Identity

This IE may be sent by the network. The contents of this IE indicate the LSA identity of the serving cell.

9.4.19 GMM Information

This message is sent by the network at any time to sent certain information to the MS. See table 9.4.19/GSM 04.08.

Message type: GMM INFORMATION

Significance: local

Direction: network to MS

Table 9.4.19/GSM 04.08: GMM INFORMATION message content

IEI	Information Element	Type/Reference	Presence	Format	Length
	Protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Skip indicator	Skip indicator 10.3.1	М	V	1/2
	GMM information message identity	Message type 10.4	M	V	1
43	Full name for network	Network name 10.5.3.5a	0	TLV	3 - ?
45	Short name for network	Network name 10.5.3.5a	0	TLV	3 - ?
46	Network time zone	Time zone 10.5.3.8	0	TV	2
47	Universal Network time and time zone	Time zone and time 10.5.3.9	0	TV	8
48	LSA Identity	LSA Identifier 10.5.3.11	О	TLV	<u>2-5</u>

9.4.19.1 Full name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "full length name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the routing area identification of the current cell.

9.4.19.2 Short name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "abbreviated name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the routing area identification of the cell the MS is currently in.

9.4.19.3 Network time zone

This IE may be sent by the network. The mobile station should assume that this time zone applies to the routing area of the cell the MS is currently in.

9.4.19.4 Universal time and Network time zone and time

This IE may be sent by the network. The mobile station should assume that this time zone applies to the routing area the MS is currently in. The mobile station shall not assume that the time information is accurate.

9.4.19.5 LSA Identity

This IE may be sent by the network. The contents of this IE indicate the LSA identity of the serving cell.

10.5.3.8 Time Zone

The purpose of this information element is to encode the <u>offset between universal time and</u> local timezone in steps of 15 minutes.

The *Time Zone* information element is coded as shown in figure 10.5.83/GSM 04.08 and table 10.5.96/GSM 04.08.

The *Time Zone* is a type 3 information element with a length of 2 octets.

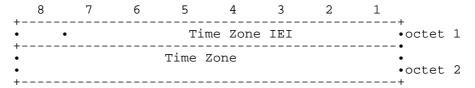


Figure 10.5.83/GSM 04.08: Time Zone information element

Table 10.5.96/GSM 04.08: Time Zone information element

```
• Time Zone (octet 2, bits 1-8)
This field uses the same format as the Timezone field used in • the TP-Service-Centre-Time-Stamp, which is defined in GSM •03.40, and its value shall be set as defined in GSM 02.42
• The format of the TP-Service-Centre-Time-Stamp is defined in • UMTS 23.040 and the value shall be set as defined in • UMTS 22.042.
• This field is encoded in exactly the same way as the Time • Zone field of the TP-Service-Centre-Time-Stamp in GSM£03.40 •
```

10.5.3.9 Time Zone and Time

The purpose of theis timezone part of this information element is to encode the offset between universal time and local timelocal timezone in steps of 15 minutes.

The purpose of the and to indicate the <u>universal</u> time part of this information element is to encode the <u>universal</u> at which this information element may have been sent by the network.

The *Time Zone and Time* information element is coded as shown in figure 10.5.84/GSM 04.08 and table 10.5.97/GSM 04.08.

The *Time Zone and Time* is a type 3 information element with a length of 8 octets.

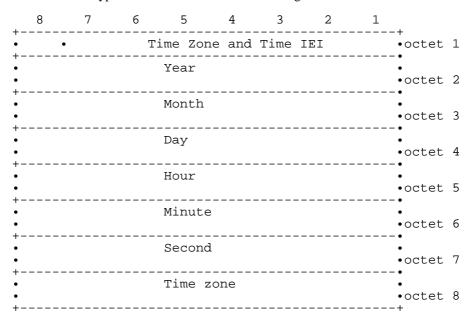


Figure 10.5.84/GSM 04.08: Time Zone and Time information element

Table 10.5.97/GSM 04.08: Timezone and Time information element

Year (octet 2, bits 1-8)

This field uses the same format as the Year field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Year field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Month (octet 3, bits 1-8)

This field uses the same format as the Month field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Month field of the TP-Service-Centre-Time-Stamp in GSM 03.40 ETS 300 536).

Day (octet 4, bits 1-8)

This field uses the same format as the Day field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Day field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Hour (octet 5, bits 1-8)

This field uses the same format as the Hour field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Hour field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Minute (octet 6, bits 1-8)

This field uses the same format as the Minute field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Minute field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Second (octet 7, bits 1-8)

This field uses the same format as the Second field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Second field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Time Zone (octet 8, bits 1-8)

This field uses the same format as the Time Zone field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in GSM 03.40 and the value shall be set as defined in GSM 02.42. This field is encoded in exactly the same way as the Time Zone field of the TP-Service-Centre-Time-Stamp in GSM 03.40)

NOTE: Due to ambiguities in earlier versions of the protocol specifications, some mobile stations may interpret the received NITZ time as local time. This may result in incorrect time settings in the mobile.

3GPP/SMG Meeting #10 Abiko, Japan, 11-14. Jan 2000

Document N1-000198 Revision of N1-000063

	СН	ANGE REC	QUEST P	Please see embedded help page for instructions on how		
		24.008 CF	096r1	Current Versi	on: 3.2.1	
GSM (AA.BB) or 30	G (AA.BBB) specification nu	mber ↑	↑ CR nui	mber as allocated by MCC	support team	
For submission to: TSGN #7 for approval X strategic Non-strategic Non-st						
Proposed change (at least one should be	ge affects:	U)SIM M		RAN / Radio	Core Network X	
Source:	CN1			Date:	14.1.2000	
Subject:	Clarification of N	ITZ time stamp co	ding			
Work item:	NITZ					
Category: (only one category shall be marked with an X) Reason for	A Corresponds to a Addition of featu Functional modification and additional modification Alignment of the	ication of feature ation Stage 3 with Stag		Release: X sinterpretations and	Phase 2 Release 96 Release 97 Release 98 Release 99 X Release 00	
<u>change:</u>	implementations					
Clauses affecte	9.2.15a, 9.4	.19, 10.5.3.8 and	10.5.3.9			
Other specs affected:	Other 3G core spe Other GSM core s MS test specifications BSS test specifications	pecifications ons tions	$\begin{array}{l} \rightarrow \text{ List of CR} \\ \rightarrow \text{ List of CR} \end{array}$	Rs: Rs:		
Other comments:	TSGS #6 decided 99637.	that stage 1 is rigl	nt and stage 3 s	should be changed	, see tdoc SP-	
help.doc						

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

9.2.15a MM information

This message is sent by the network to the mobile station to provide the mobile station with subscriber specific information. See table 9.2.18/TS 24.008.

Message type: MM INFORMATION

Significance: dual

Direction: network to mobile station

Table 9.2.18/TS 24.008 MM INFORMATION message content

IEI	Information element	Type / Reference	Presence	Format	Length
	Mobility management	Protocol discriminator	M	V	1/2
	protocol discriminator	10.2			
	Skip Indicator	Skip Indicator	M	V	1/2
		10.3.1			
	MM Information	Message type	M	V	1
	message type	10.4			
43	Full name for network	Network Name	0	TLV	3-?
		10.5.3.5a			
45	Short name for network	Network Name	0	TLV	3-?
		10.5.3.5a			
46	<u>Local Network</u> time zone	Time Zone	0	TV	2
1		10.5.3.8			
47	<u>Universal Network</u> time and <u>local</u> time zone	Time Zone and Time	0	TV	8
		10.5.3.9			
48	LSA Identity	LSA Identifier	0	TLV	2-5
		10.5.3.11			
49	Network Daylight Saving Time	Daylight Saving Time	0	TLV	3
		10.5.3.12			
49	Network Daylight Saving Time	Daylight Saving Time	О	TLV	3

9.2.15a.1 Full name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "full length name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the Location Area Identification of the cell to which the mobile station sent its Channel Request message.

9.2.15a.2 Short name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "abbreviated name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the Location Area Identification of the cell to which the mobile station sent its Channel Request message.

9.2.15a.3 <u>Local Network</u> time zone

This IE may be sent by the network. The mobile station should assume that this time zone applies to the Location Area of the cell to which the Channel Request message was sent.

If the <u>local network</u> time zone has been adjusted for Daylight Saving Time, the network shall indicate this by including the IE Network Daylight Saving Time.

9.2.15a.4 <u>Universal time and Network local</u> time zone and time

This IE may be sent by the network. The mobile station should assume that this time zone applies to the Location Area of the cell to which the Channel Request message was sent. The mobile station shall not assume that the time information is accurate.

If the <u>network local</u> time zone has been adjusted for Daylight Saving Time, the network shall indicate this by including the IE Network Daylight Saving Time.

9.2.15a.5 LSA Identity

This IE may be sent by the network. The contents of this IE indicate the LSA identity of the serving cell.

9.2.15a.6 Network Daylight Saving Time

This IE may be sent by the network. If this IE is sent, the contents of this IE indicates the value that has been used to adjust the networklocal time zone.

9.4.19 GMM Information

This message is sent by the network at any time to sent certain information to the MS. See table 9.4.19/TS 24.008.

Message type: GMM INFORMATION

Significance: local

Direction: network to MS

Table 9.4.19/TS 24.008: GMM INFORMATION message content

IEI	Information Element	Type/Reference	Presence	Format	Length
	Protocol discriminator	Protocol discriminator 10.2	М	V	1/2
	Skip indicator	Skip indicator 10.3.1	М	V	1/2
	GMM Information message identity	Message type 10.4	М	V	1
43	Full name for network	Network name 10.5.3.5a	0	TLV	3 - ?
45	Short name for network	Network name 10.5.3.5a	0	TLV	3 - ?
46	LocalNetwork time zone	Time zone 10.5.3.8	0	TV	2
47	Universal Network time and local time zone	Time zone and time 10.5.3.9	0	TV	8
48	LSA Identity	LSA Identifier 10.5.3.11	0	TLV	2-5
49	Network Daylight Saving Time	Daylight Saving Time 10.5.3.12	0	TLV	3

9.4.19.1 Full name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "full length name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the routing area identification of the current cell.

9.4.19.2 Short name for network

This IE may be sent by the network. If this IE is sent, the contents of this IE indicate the "abbreviated name of the network" that the network wishes the mobile station to associate with the MCC and MNC contained in the routing area identification of the cell the MS is currently in.

9.4.19.3 LocalNetwork time zone

This IE may be sent by the network. The mobile station should assume that this time zone applies to the routing area of the cell the MS is currently in.

If the <u>localnetwork</u> time zone has been adjusted for Daylight Saving Time, the network shall indicate this by including the IE Network Daylight Saving Time.

9.4.19.4 Universal time and Network local time zone and time

This IE may be sent by the network. The mobile station should assume that this time zone applies to the routing area the MS is currently in. The mobile station shall not assume that the time information is accurate.

If the network local time zone has been adjusted for Daylight Saving Time, the network shall indicate this by including the IE Network Daylight Saving Time.

9.4.19.5 LSA Identity

This IE may be sent by the network. The contents of this IE indicate the LSA identity of the serving cell.

9.4.19.6 Network Daylight Saving Time

This IE may be sent by the network. If this IE is sent, the contents of this IE indicates the value that has been used to adjust the networklocal time zone.

10.5.3.8 Time Zone

The purpose of this information element is to encode the <u>offset between universal time and</u> local timezone in steps of 15 minutes.

The *Time Zone* information element is coded as shown in figure 10.5.83/TS 24.008 and table 10.5.96/TS 24.008.

The *Time Zone* is a type 3 information element with a length of 2 octets.

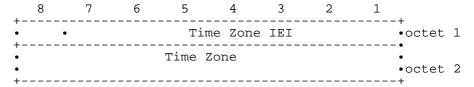


Figure 10.5.83/TS 24.008 Time Zone information element

Table 10.5.96/TS 24.008 Time Zone information element

```
* Time Zone (octet 2, bits 1-8)

• This field uses the same format as the Timezone field used in

• the TP-Service-Centre-Time-Stamp, which is defined in GSM

• 03.40, and its value shall be set as defined in GSM 02.42The format

• the TP-Service-Centre-Time-Stamp is defined in •

• UMTS 23.040 and the value shall be set as defined in

• UMTS 22.042.

• This field is encoded in exactly the same way as the Time

• Zone field of the TP-Service-Centre-Time-Stamp in GSM£03.40

• .
```

10.5.3.9 Time Zone and Time

The purpose of the <u>is</u> timezone part of this information element is to encode the <u>offset between universal time and local timelocal timelocal timezone</u> in steps of 15 minutes.

The purpose of the and to indicate the <u>universal</u> time part of this information element is to encode the <u>universal</u> at which this information element may have been sent by the network.

The *Time Zone and Time* information element is coded as shown in figure 10.5.84/TS 24.008 and table 10.5.97/TS 24.008.

The *Time Zone and Time* is a type 3 information element with a length of 8 octets.



Figure 10.5.84/TS 24.008 Time Zone and Time information element

Table 10.5.97/TS 24.008 Timezone and Time information element

Year (octet 2, bits 1-8)

This field uses the same format as the Year field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42This field is encoded in exactly the same way as the Year field of the TP-Service-Centre-Time-Stamp in GSM 03.40. The format of the TP-Service-Centre-Time-Stamp is defined in UMTS 23.040 and the value shall be set as defined in UMTS 22.042.

Month (octet 3, bits 1-8)

This field uses the same format as the Month field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in UMTS 23.040 and the value shall be set as defined in UMTS 22.042This field is encoded in exactly the same way as the Month field of the TP-Service-Centre-Time-Stamp in GSM 03.40 ETS 300 536).

Day (octet 4, bits 1-8)

This field uses the same format as the Day field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in UMTS 23.040 and the value shall be set as defined in UMTS 22.042This field is encoded in exactly the same way as the Day field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Hour (octet 5, bits 1-8)

This field uses the same format as the Hour field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in UMTS 23.040 and the value shall be set as defined in UMTS 22.042This field is encoded in exactly the same way as the Hour field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Minute (octet 6, bits 1-8)

This field uses the same format as the Minute field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in UMTS 23.040 and the value shall be set as defined in UMTS 22.042This field is encoded in exactly the same way as the Minute field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Second (octet 7, bits 1-8)

This field uses the same format as the Second field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in UMTS 23.040 and the value shall be set as defined in UMTS 22.042This field is encoded in exactly the same way as the Second field of the TP-Service-Centre-Time-Stamp in GSM 03.40.

Time Zone (octet 8, bits 1-8)

This field uses the same format as the Time Zone field used in the TP-Service-Centre-Time-Stamp, which is defined in GSM 03.40, and its value shall be set as defined in GSM 02.42The format of the TP-Service-Centre-Time-Stamp is defined in UMTS 23.040 and the value shall be set as defined in UMTS 22.042. This field is encoded in exactly the same way as the Time Zone field of the TP-Service-Centre-Time-Stamp in GSM 03.40)

NOTE: Due to ambiguities in earlier versions of the protocol specifications, some mobile stations may interpret the received NITZ time as local time. This may result in incorrect time settings in the mobile.

[Editor's Note – this section is included for information only. No changes have been made]

10.5.3.12 Daylight Saving Time

The purpose of this information element is to encode the Daylight Saving Time in steps of 1 hour.

The *Daylight Saving Time* information element is coded as shown in figure 10.5.84b/TS 24.008 and table 10.5.97a/TS 24.008.

The Daylight Saving Time is a type 4 information element with a length of 3 octets.

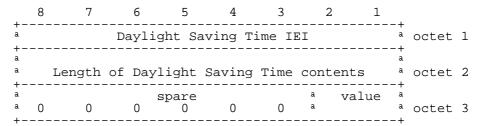


Figure 10.5.84b/TS 24.008 Daylight Saving Time information element

Table 10.5.97a/TS 24.008: Daylight Saving Time information element