

ETSI SMG3 Plenary Meeting #7,  
Madrid, Spain  
13<sup>th</sup> – 15<sup>th</sup> March 2000

---

Agenda item: 5.2.3  
Source: TSG\_N WG2  
Title: CRs to 3G Work Item Call Forwarding Enhancements

---

**Introduction:**

This document contains “1” CR on **Work Item Call Forwarding Enhancements**, that has been agreed by **TSG\_N WG2**, and is forwarded to **TSG\_N Plenary meeting #7** for approval.

TDoc	SPEC	CR	REV	CAT	Rel	Old vers	New vers	SUBJECT
N2B000375	29.002	066	5	B	R99	3.3.1		Addition of the FTN-AddressString

# CHANGE REQUEST

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

**29.002 CR 066r5**

Current Version: **3.3.0**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **CN#07**  
list expected approval meeting # here ↑

for approval   
for information

strategic   
non-strategic  (for SMG use only)

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:** (U)SIM  ME  UTRAN / Radio  Core Network   
(at least one should be marked with an X)

**Source:** N2 **Date:** 15/02/2000

**Subject:** Addition of the FTN-AddressString

**Work item:** Call Forwarding Enhancements

<b>Category:</b>	F Correction	<input type="checkbox"/>	<b>Release:</b>	Phase 2	<input type="checkbox"/>
	A Corresponds to a correction in an earlier release	<input type="checkbox"/>		Release 96	<input type="checkbox"/>
(only one category shall be marked with an X)	B Addition of feature	<input checked="" type="checkbox"/>		Release 97	<input type="checkbox"/>
	C Functional modification of feature	<input type="checkbox"/>		Release 98	<input type="checkbox"/>
	D Editorial modification	<input type="checkbox"/>		Release 99	<input checked="" type="checkbox"/>
				Release 00	<input type="checkbox"/>

**Reason for change:** SMG1 agreed a CR to GSM 02.82 (now TS 22.082) to allow the registration of forwarded-to numbers up to 28 digits long. This requires changes to MAP.

**Clauses affected:** 7.6, 7.6.2.22, 7.6.2.x (new), 7.6.2.y (new), 7.6.3.16, 7.6.4.16, 8.1.2.2, 8.1.2.3, 8.8.1.3, 8.11.3.2, 8.11.4.2, 10.1.2, 10.1.3, 10.3.3, 11.1.2, 11.3.3, 11.3.2, 11.3.3, 11.5.2, 11.5.3, 17.7.1, 17.7.3, 17.7.4, 17.7.8

<b>Other specs affected:</b>	Other 3G core specifications	<input checked="" type="checkbox"/>	→ List of CRs:	23.078-093; 23.082-004; 29.078-049.
	Other GSM core specifications	<input type="checkbox"/>	→ List of CRs:	
	MS test specifications	<input type="checkbox"/>	→ List of CRs:	
	BSS test specifications	<input type="checkbox"/>	→ List of CRs:	
	O&M specifications	<input type="checkbox"/>	→ List of CRs:	

**Other comments:**



help.doc

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

**\*\*\*First Modified Section\*\*\***

## 7.6 Definition of parameters

Following is an alphabetic list of parameters used in the common MAP-services in subclause 7.3:

Application context name	7.3.1	Refuse reason	7.3.1
Destination address	7.3.1	Release method	7.3.2
Destination reference	7.3.1	Responding address	7.3.1
Diagnostic information	7.3.4	Result	7.3.1
Originating address	7.3.1	Source	7.3.5
Originating reference	7.3.1	Specific information	7.3.1/7.3.2/7.3.4
Problem diagnostic	7.3.6	User reason	7.3.4
Provider reason	7.3.5		

Following is an alphabetic list of parameters contained in this clause:

Absent Subscriber Diagnostic SM	7.6.8.9	Invoke Id	7.6.1.1
Access connection status	7.6.9.3	ISDN Bearer Capability	7.6.3.41
		IST Alert Timer	7.6.3.66
Access signalling information	7.6.9.5	IST Information Withdrawn	7.6.3.68
Additional Absent Subscriber Diagnostic SM	7.6.8.12	IST Support Indicator	7.6.3.69
Additional number	7.6.2.46	Kc	7.6.7.4
Additional signal info	7.6.9.10	Linked Id	7.6.1.2
Additional SM Delivery Outcome	7.6.8.11		
Age Indicator	7.6.3.72	LMSI	7.6.2.16
Alert Reason	7.6.8.8	Location Information	7.6.2.30
Alert Reason Indicator	7.6.8.10	Location update type	7.6.9.6
Alerting Pattern	7.6.3.44	Lower Layer Compatibility	7.6.3.42
All GPRS Data	7.6.3.53	<del>LSA Information</del>	<del>7.6.3.56</del>
All Information Sent	7.6.1.5	<del>LSA Information Withdraw</del>	<del>7.6.3.58</del>
APN	7.6.2.42	<del>Long Forwarded-to Number</del>	<del>7.6.2.x</del>
Authentication set list	7.6.7.1	<del>LSA Information</del>	<del>7.6.3.56</del>
B-subscriber Address	7.6.2.36	<del>LSA Information Withdraw</del>	<del>7.6.3.58</del>
B subscriber Number	7.6.2.48	Mobile Not Reachable Reason	7.6.3.51
B subscriber subaddress	7.6.2.49	Modification request for CSI	7.6.3.81
Basic Service Group	7.6.4.40	Modification request for SS Information	7.6.3.82
Bearer service	7.6.4.38	More Messages To Send	7.6.8.7
BSS-apdu	7.6.9.1	MS ISDN	7.6.2.17
Call Barring Data	7.6.3.83	MSC number	7.6.2.11
Call barring feature	7.6.4.19	MSIsdn-Alert	7.6.2.29
Call barring information	7.6.4.18	MWD status	7.6.8.3
Call Direction	7.6.5.8	Network Access Mode	7.6.3.50
Call Forwarding Data	7.6.3.84	Network node number	7.6.2.43
Call Info	7.6.9.9	Network resources	7.6.10.1
		Network signal information	7.6.9.8
Call reference	7.6.5.1	New password	7.6.4.20
Call Termination Indicator	7.6.3.67	No reply condition timer	7.6.4.7
Called number	7.6.2.24	North American Equal Access	7.6.2.34
Calling number	7.6.2.25	preferred Carrier Id	
CAMEL Subscription Info	7.6.3.78	Number Portability Status	7.6.5.14
CAMEL Subscription Info Withdraw	7.6.3.38		
Cancellation Type	7.6.3.52	ODB Data	7.6.3.85
Category	7.6.3.1	ODB General Data	7.6.3.9
CCBS Feature	7.6.5.8	ODB HPLMN Specific Data	7.6.3.10
Channel Type	7.6.5.9	OMC Id	7.6.2.18
Chosen Channel	7.6.5.10	Originally dialled number	7.6.2.26
Ciphering mode	7.6.7.7	Originating entity number	7.6.2.10
Cksn	7.6.7.5	Override Category	7.6.4.4
CLI Restriction	7.6.4.5	P-TMSI	7.6.2.47
CM service type	7.6.9.2	PDP-Address	7.6.2.45
Complete Data List Included	7.6.3.54	PDP-Context identifier	7.6.3.55
CUG feature	7.6.3.26	PDP-Type	7.6.2.44
CUG index	7.6.3.25	Pre-paging supported	7.6.5.15
CUG info	7.6.3.22	Previous location area Id	7.6.2.4
CUG interlock	7.6.3.24	Protocol Id	7.6.9.7
CUG Outgoing Access indicator	7.6.3.8	Provider error	7.6.1.3
CUG subscription	7.6.3.23	QoS-Subscribed	7.6.3.47
CUG Subscription Flag	7.6.3.37	Rand	7.6.7.2
Current location area Id	7.6.2.6	Regional Subscription Data	7.6.3.11
Current password	7.6.4.21	Regional Subscription Response	7.6.3.12
		Requested Info	7.6.3.31
eMLPP Information	7.6.4.41	Requested Subscription Info	7.6.3.86
		Roaming number	7.6.2.19
Equipment status	7.6.3.2	Roaming Restricted In SGSN Due To	7.6.3.49
Extensible Basic Service Group	7.6.3.5	Unsupported Feature	
Extensible Bearer service	7.6.3.3	Roaming Restriction Due To	7.6.3.13
Extensible Call barring feature	7.6.3.21	Unsupported Feature	
Extensible Call barring information	7.6.3.20	Service centre address	7.6.2.27
Extensible Call barring information for	7.6.3.79	Serving Cell Id	7.6.2.37
		SGSN address	7.6.2.39
		SGSN CAMEL Subscription Info	7.6.3.75
		SGSN number	7.6.2.38
		SIWF Number	7.6.2.35

CSE		SoLSA Support Indicator	7.6.3.57
Extensible Forwarding feature	7.6.3.16	SM Delivery Outcome	7.6.8.6
Extensible Forwarding info	7.6.3.15	SM-RP-DA	7.6.8.1
Extensible Forwarding information for CSE	7.6.3.80	SM-RP-MTI	7.6.8.16
Extensible Forwarding Options	7.6.3.18	SM-RP-OA	7.6.8.2
Extensible No reply condition timer	7.6.3.19	SM-RP-PRI	7.6.8.5
Extensible QoS-Subscribed	7.6.3.74	SM-RP-SMEA	7.6.8.17
Extensible SS-Data	7.6.3.29	SM-RP-UI	7.6.8.4
Extensible SS-Info	7.6.3.14	Sres	7.6.7.3
Extensible SS-Status	7.6.3.17	SS-Code	7.6.4.1
Extensible Teleservice	7.6.3.4	SS-Data	7.6.4.3
External Signal Information	7.6.9.4	SS-Event	7.6.4.42
Forwarded-to number	7.6.2.22	SS-Event-Data	7.6.4.43
Forwarded-to subaddress	7.6.2.23	SS-Info	7.6.4.24
Forwarding feature	7.6.4.16	SS-Status	7.6.4.2
Forwarding information	7.6.4.15	Stored location area Id	7.6.2.5
Forwarding Options	7.6.4.6	Subscriber State	7.6.3.30
GGSN address	7.6.2.40	Subscriber Status	7.6.3.7
GGSN number	7.6.2.41	Super-Charger Supported in HLR	7.6.3.70
		<u>Long FTN Supported</u>	<u>7.6.2.y</u>
GMSC CAMEL Subscription Info	7.6.3.34	Super-Charger Supported in Serving Network Entity	7.6.3.71
GPRS enhancements support indicator	7.6.3.73	Supported CAMEL Phases in VLR	7.6.3.36
GPRS Node Indicator	7.6.8.14	Supported CAMEL Phases in SGSN	7.6.3.36A
GPRS Subscription Data	7.6.3.46	Suppress T-CSI	7.6.3.33
GPRS Subscription Data Withdraw	7.6.3.45	Suppression of Announcement	7.6.3.32
GPRS Support Indicator	7.6.8.15	Target cell Id	7.6.2.8
Group Id	7.6.2.33	Target location area Id	7.6.2.7
GSM bearer capability	7.6.3.6	Target MSC number	7.6.2.12
Guidance information	7.6.4.22	Teleservice	7.6.4.39
Handover number	7.6.2.21	TMSI	7.6.2.2
High Layer Compatibility	7.6.3.43	Trace reference	7.6.10.2
HLR Id	7.6.2.15	Trace type	7.6.10.3
HLR number	7.6.2.13	User error	7.6.1.4
HO-Number Not Required	7.6.6.7	USSD Data Coding Scheme	7.6.4.36
IMEI	7.6.2.3	USSD String	7.6.4.37
IMSI	7.6.2.1	UU Data	7.6.5.12
Inter CUG options	7.6.3.27	UUS CF Interaction	7.6.5.13
Intra CUG restrictions	7.6.3.28	VBS Data	7.6.3.40
		VGCS Data	7.6.3.39
		VLR CAMEL Subscription Info	7.6.3.35
		VLR number	7.6.2.14
		VPLMN address allowed	7.6.3.48
		Zone Code	7.6.2.28

**\*\*\*Next Modified Section\*\*\***

### 7.6.2.22 Forwarded-to number

This parameter refers to the address to which a call is to be forwarded. ~~This may include a~~ A subaddress may be appended. For subscribers having an originating CAMEL Phase 2 or higher subscription; this address need not be in ~~non-~~ E.164 international format.

**\*\*\*New Section\*\*\***

### 7.6.2.x Long forwarded-to number

This parameter refers to the address to which a call is to be forwarded. A subaddress may be appended. For subscribers having an originating CAMEL Phase 2 or higher subscription this address need not be in international format.

**\*\*\*New Section\*\*\***

### 7.6.2.y Long FTN Supported

This parameter indicates that the sending entity supports Long Forwarded-to Numbers.

**\*\*\*Next Modified Section\*\*\***

### 7.6.3.16 Extensible Forwarding feature

This parameter applies to each combination of call forwarding service and Basic Service Group and contains the following information, as required:

- extensible Basic Service Group (see subclause 7.6.3.5);
- extensible SS-Status (see subclause 7.6.3.17);
- forwarded-to number (see subclause 7.6.2.22);
- forwarded-to subaddress (see subclause 7.6.2.23);
- extensible forwarding options (see subclause 7.6.3.18);
- extensible no reply condition timer (see subclause 7.6.4.19);
- long forwarded-to number (see subclause 7.6.2.x).

If a number is required to define the forwarded-to destination then:

- If the VLR supports Long Forwarded-to Numbers then the long forwarded-to number shall be present and the forwarded-to number shall be absent;
- If the VLR does not support Long Forwarded-to Numbers then the forwarded-to number shall be present and the long forwarded-to number shall be absent.

**\*\*\*Next Modified Section\*\*\***

### 7.6.4.16 Forwarding feature

This parameter applies to each combination of call forwarding service and Basic Service Group and contains the following information, as required:

- Basic Service Group (see subclause 7.6.4.40);
- SS-Status (see subclause 7.6.4.2);
- forwarded-to number (see subclause 7.6.2.22);
- forwarded-to subaddress (see subclause 7.6.2.23);
- forwarding options (see subclause 7.6.4.6);
- no reply condition timer (see subclause 7.6.4.7)
- long forwarded-to number (see subclause 7.6.2.x).

If a number is required to define the forwarded-to destination then:

- If the VLR supports Long Forwarded-to Numbers then the long forwarded-to number shall be present and the forwarded-to number shall be absent.
- If the VLR does not support Long Forwarded-to Numbers then the forwarded-to number shall be present and the long forwarded-to number shall be absent.

**\*\*\*\*Next Modified Section \*\*\*\***

## 8.1.2 MAP\_UPDATE\_LOCATION service

...

### 8.1.2.2 Service primitives

Parameter name	Request	Indication	Response	Confirm
Invoke Id	M	M(=)	M(=)	M(=)
IMSI	M	M(=)		
MSC Address	M	M(=)		
VLR number	M	M(=)		
LMSI	U	C(=)		
Supported CAMEL Phases	C	C(=)		
SoLSA Support Indicator	C	C(=)		
IST Support Indicator	C	C(=)		
Super-Charger Supported in Serving	C	C(=)		
Network Entity				
<u>Long FTN Supported</u>	<u>C</u>	<u>C(=)</u>		
HLR number			C	C(=)
User error			C	C(=)
Provider error				O

**Table 8.1/2: MAP\_UPDATE\_LOCATION**

### 8.1.2.3 Parameter definitions and use

...

#### Long FTN Supported

This parameter indicates that the GMSC-VLR supports Long Forwarded-to Numbers.

...

**\*\*\*\*Next Modified Section \*\*\*\***

## 8.8.1 MAP-INSERT-SUBSCRIBER-DATA service

...

### 8.8.1.3 Parameter use

...

#### Forwarding information List

A list of Extensible Forwarding information parameters (Extensible Forwarding information is defined in subclause 7.6). It includes Call Forwarding services either at location updating or at restoration or when they are changed. Each Extensible Forwarding information parameter shall be treated independently of all other parameters in the primitive.

The Extensible Forwarding information shall include the SS-Code for an individual call forwarding supplementary service. The Extensible Forwarding information shall contain one or more Extensible Forwarding Features (Extensible Forwarding Feature is defined in subclause 7.6).

The Extensible Forwarding Feature may include an Extensible Basic Service Group. This shall be interpreted according to the rules in subclause 8.8.1.4.

The Extensible Forwarding Feature shall contain an Extensible SS-Status parameter.

If the Extensible SS-Status indicates that call forwarding is registered then (except for call forwarding unconditional) the Extensible Forwarding Feature shall contain a ~~forwarded-to number~~ to define the forwarded-to destination and, if available, the forwarded-to subaddress. In other states the forwarded-to number and, if applicable, the forwarded-to subaddress shall not be included. For call forwarding unconditional the forwarded-to number and, if applicable, the forwarded-to subaddress shall not be included. If the VLR does not receive a forwarded-to subaddress then it shall assume that a forwarded-to subaddress has not been registered.

The Extensible Forwarding Feature shall contain the extensible forwarding options (except for call forwarding unconditional where the extensible forwarding options shall not be included). Bits 3 and 4 of the extensible forwarding options shall be ignored by the VLR, and may be set to any value by the HLR.

For call forwarding on no reply: If the extensible SS-Status indicates that call forwarding is registered then -the Extensible Forwarding Feature shall contain an extensible no reply condition timer. In other states the no reply condition timer shall not be included.

For call forwarding services other than call forwarding on no reply: The Extensible Forwarding Feature shall not contain a no reply condition timer.

If the VLR receives an Indication containing any Call Forwarding service codes which it does not support/allocate it returns them to the HLR in the parameter SS-Code List and discards the unsupported Call Forwarding service codes (no error is sent back). This parameter is used only by the VLR and if the SGSN receives this parameter it shall ignore it.

...

**\*\*\*Next Modified Section\*\*\***

### 8.11.3 MAP-ANY-TIME-SUBSCRIPTION-INTERROGATION service

...

#### 8.11.3.2 Service primitives

**Table 8.11/3: Any\_Time\_Subscription\_Interrogation**

Parameter name	Request	Indication	Response	Confirm
Invoke id	M	M(=)	M(=)	M(=)
Requested Subscription Info	M	M(=)		
GsmSCF-Address	M	M(=)		
IMSI	C	C(=)		
MSISDN	C	C(=)		
<u>Long FTN Supported</u>	<u>C</u>	<u>C(=)</u>		
Call Forwarding Data			C	C(=)
Call Barring Data			C	C(=)
ODB Data			C	C(=)
CAMEL Subscription Info			C	C(=)
Supported CAMEL phases in VLR			C	C(=)
Supported CAMEL phases in SGSN			C	C(=)
User error			C	C(=)
Provider error				O

**\*\*\*Next Modified Section\*\*\***



## 8.11.4 MAP-ANY-TIME-MODIFICATION service

...

### 8.11.4.2 Service primitives

**Table 8.11/4: Any\_Time\_Modification**

Parameter name	Request	Indication	Response	Confirm
Invoke id	M	M(=)	M(=)	M(=)
gsmSCF-Address	M	M(=)		
IMSI	C	C(=)		
MSISDN	C	C(=)		
Modification request for SS information	C	C(=)		
Modification request for CSI	C	C(=)		
<u>Long FTN Supported</u>	<u>C</u>	<u>C(=)</u>		
Ext Forwarding information-for-CSE			C	C(=)
Ext Call barring information-for-CSE			C	C(=)
CAMEL subscription info			C	C(=)
User error			C	C(=)
Provider error				O

**\*\*\*Next Modified Section\*\*\***

## 10.1 MAP\_SEND\_ROUTING\_INFORMATION service

...

## 10.1.2 Service primitives

Table 10.1/1: MAP\_SEND\_ROUTING\_INFORMATION parameters

Parameter name	Request	Indication	Response	Confirm
Invoke Id	M	M(=)	M(=)	M(=)
Interrogation Type	M	M(=)		
GMSC Address	M	M(=)		
MSISDN	M	M(=)	C	C(=)
OR Interrogation	C	C(=)		
OR Capability	C	C(=)		
CUG Interlock	C	C(=)	C	C(=)
CUG Outgoing Access	C	C(=)	C	C(=)
Number of Forwarding	C	C(=)		
Network Signal Info	C	C(=)		
Supported CAMEL Phases	C	C(=)		
Suppress T-CSI	C	C(=)		
Suppression of Announcement	C	C(=)		
Call Reference Number	C	C(=)		
Forwarding Reason	C	C(=)		
Basic Service Group	C	C(=)		
Alerting Pattern	C	C(=)		
CCBS Call	C	C(=)		
Supported CCBS Phase	C	C(=)		
Additional Signal Info	C	C(=)		
IST Support Indicator	C	C(=)		
Pre-paging supported	C	C(=)		
Call Diversion Treatment Indicator	C	C(=)		
<u>Long FTN Supported</u>	<u>C</u>	<u>C(=)</u>		
IMSI			C	C(=)
MSRN			C	C(=)
Forwarding Data			C	C(=)
Forwarding Interrogation Required			C	C(=)
VMSC address			C	C(=)
GMSC Camel Subscription Info			C	C(=)
Location Information			C	C(=)
Subscriber State			C	C(=)
Basic Service Code			C	C(=)
CUG Subscription Flag			C	C(=)
North American Equal Access preferred			U	C(=)
Carrier Id				
User error			C	C(=)
SS-List			U	C(=)
CCBS Target			C	C(=)
Keep CCBS Call Indicator			C	C(=)
IST Alert Timer			C	C(=)
Number Portability Status			U	C(=)
Provider error				O

## 10.1.3 Parameter use

...

### Forwarding Data

This parameter includes ~~the forwarded-to number~~ to define the forwarded-to destination, the forwarding reason and the forwarding options Notification to calling party and Redirecting presentation-, and can include the forwarded-to subaddress. See GSM 03.18 [97] and GSM 03.79 [99] for the conditions for the presence of its components.

...

### Long FTN Supported

This parameter indicates that the GMSC supports Long Forwarded-to Numbers.

...

**\*\*\*Next Modified Section\*\*\***

## 10.3 MAP\_RESUME\_CALL\_HANDLING service

...

### 10.3.3 Parameter use

...

#### Forwarding Data

This parameter includes ~~the forwarded-to~~ number to define the forwarded-to destination, the forwarding reason and the forwarding options Notification to calling party and Redirecting presentation, and can include the forwarded-to subaddress. See GSM 03.79 [99] for the conditions for the presence of its components. This parameter shall be present in a first segment of the dialogue

...

**\*\*\*Next Modified Section\*\*\***

## 11.1 MAP\_REGISTER\_SS service

...

### 11.1.2 Service primitives

The service primitives are shown in table 11.1/1.

**Table 11.1/1: MAP\_REGISTER\_SS parameters**

Parameter name	Request	Indication	Response	Confirm
Invoke id	M	M(=)	M(=)	M(=)
SS-Code	M	M(=)		
Basic service	C	C(=)		
Forwarded-to number with subaddress	C	C(=)		
No reply condition time	C	C(=)		
EMLPP default priority	C	C(=)	C	C(=)
<u>Long FTN Supported</u>	<u>C</u>	<u>C(=)</u>		
Forwarding information			C	C(=)
User error			C	C(=)
Provider error				O

### 11.1.3 Parameter use

...

#### Long FTN Supported

This parameter indicates that the mobile station supports Long Forwarded-to Numbers.

...

**\*\*\*\*Next Modified Section \*\*\*\***

## 11.3 MAP\_ACTIVATE\_SS service

...

### 11.3.2 Service primitives

The service primitives are shown in table 11.3/1.

**Table 11.3/1: MAP\_ACTIVATE\_SS parameters**

Parameter name	Request	Indication	Response	Confirm
Invoke id	M	M(=)	M(=)	M(=)
SS-Code	M	M(=)		
Basic service	C	C(=)		
<u>Long FTN Supported</u>	<u>C</u>	<u>C(=)</u>		
Forwarding information			C	C(=)
Call barring information			C	C(=)
SS-Data			C	C(=)
User error			C	C(=)
Provider error				O

### 11.3.3 Parameter use

...

Long FTN Supported

This parameter indicates that the mobile station supports Long Forwarded-to Numbers.

...

**\*\*\*\*Next Modified Section \*\*\*\***

## 11.5 MAP\_INTERROGATE\_SS service

...

## 11.5.2 Service primitives

The service primitives are shown in table 11.5/1.

**Table 11.5/1: MAP\_INTERROGATE\_SS parameters**

Parameter name	Request	Indication	Response	Confirm
Invoke id	M	M(=)	M(=)	M(=)
SS-Code	M	M(=)		
Basic service	C	C(=)		
<u>Long FTN Supported</u>	<u>C</u>	<u>C(=)</u>		
SS-Status			C	C(=)
Basic service Group LIST			C	C(=)
Forwarding feature LIST			C	C(=)
CLI restriction Info			C	C(=)
EMLPP Info			C	C(=)
CCBS Feature LIST			C	C(=)
User error			C	C(=)
Provider error				O

## 11.5.3 Parameter use

### Long FTN Supported

This parameter indicates that the mobile station supports Long Forwarded-to Numbers.

...

**\*\*\*Next Modified Section\*\*\***

## 17.7.1 Mobile Service data types

...

IMPORTS

...

AddressString,  
 ISDN-AddressString,  
 ISDN-SubaddressString,  
FTN-AddressString,  
 ExternalSignalInfo,  
 IMSI,  
 TMSI,  
 HLR-List,  
 LMSI,  
 Identity,  
 GlobalCellId,  
 CellIdOrLAI,  
 Ext-BasicServiceCode,  
 NAEA-PreferredCI,  
 EMLPP-Info,  
 SubscriberIdentity,  
 AgeOfLocationInformation,  
 LCSCClientExternalID,  
 LCSCClientInternalID

FROM MAP-CommonDataTypes {  
   ccitt identified-organization (4) etsi (0) mobileDomain (0)  
   gsm-Network (1) modules (3) map-CommonDataTypes (18) version6 (6)}

...

.

.

<b>VLR-Capability ::= SEQUENCE{</b>		
supportedCamelPhases	[0] SupportedCamelPhases	OPTIONAL,
extensionContainer	ExtensionContainer	OPTIONAL,
...		
solsaSupportIndicator	[2] NULL	OPTIONAL,
istSupportIndicator	[1] IST-SupportIndicator	OPTIONAL,
superChargerSupportedInServingNetworkEntity	[3] SuperChargerInfo	OPTIONAL,
longFTN-Supported	[34] NULL	OPTIONAL}

.

.

.

<b>Ext-ForwFeature ::= SEQUENCE {</b>		
basicService	Ext-BasicServiceCode	OPTIONAL,
ss-Status [4] Ext-SS-Status,		
forwardedToNumber	[5] ISDN-AddressString	OPTIONAL,
-- When this data type is sent from an HLR which supports CAMEL Phase 2		
-- to a VLR that supports CAMEL Phase 2 the VLR shall not check the		
-- format of the number		
forwardedToSubaddress	[8] ISDN-SubaddressString	OPTIONAL,
forwardingOptions	[6] Ext-ForwOptions	OPTIONAL,
noReplyConditionTime	[7] Ext-NoRepCondTime	OPTIONAL,
extensionContainer	[9] ExtensionContainer	OPTIONAL,
...		
longForwardedToNumber	[10] FTN-AddressString	OPTIONAL}

.

.

.

<b>AnyTimeSubscriptionInterrogationArg ::= SEQUENCE {</b>		
subscriberIdentity	[0] SubscriberIdentity,	
requestedSubscriptionInfo	[1] RequestedSubscriptionInfo,	
gsmSCF-Address	[2] ISDN-AddressString,	
extensionContainer	[3] ExtensionContainer	OPTIONAL,
...		
longFTN-Supported	[4] NULL	OPTIONAL}

.

.

.

<b>AnyTimeModificationArg ::= SEQUENCE {</b>		
subscriberIdentity	[0] SubscriberIdentity,	
gsmSCF-Address	[1] ISDN-AddressString,	
modificationRequestFor-SS-Info	[2] ModificationRequestFor-SS-Info	OPTIONAL,
modificationRequestFor-CSI	[3] ModificationRequestFor-CSI	OPTIONAL,
extensionContainer	[4] ExtensionContainer	OPTIONAL,
...		
longFTN-Supported	[5] NULL	OPTIONAL}

.

.

.

**\*\*\*Next Modified Section\*\*\***

### 17.7.3 Call handling data types

.

.

.

IMPORTS

.

.

.

FROM MAP-SS-DataTypes {  
 ccitt identified-organization (4) etsi (0) mobileDomain (0)  
 gsm-Network (1) modules (3) map-SS-DataTypes (14) version6 (6)}

ISDN-AddressString,  
 ISDN-SubaddressString,

FTN-AddressString

ExternalSignalInfo,  
 Ext-ExternalSignalInfo,  
 IMSI,  
 LMSI,  
 Ext-BasicServiceCode,  
 AlertingPattern,  
 NAEA-PreferredCI

```
FROM MAP-CommonDataTypes {
  ccitt identified-organization (4) etsi (0) mobileDomain (0)
  gsm-Network (1) modules (3) map-CommonDataTypes (18) version6 (6)}
.
.
.
```

<b>SendRoutingInfoArg ::= SEQUENCE {</b>		
msisdn	[0] ISDN-AddressString,	
cug-CheckInfo	[1] CUG-CheckInfo	OPTIONAL,
numberOfForwarding	[2] NumberOfForwarding	OPTIONAL,
interrogationType	[3] InterrogationType,	
or-Interrogation	[4] NULL	OPTIONAL,
or-Capability	[5] OR-Phase	OPTIONAL,
gsmc-Address	[6] ISDN-AddressString,	
callReferenceNumber	[7] CallReferenceNumber	OPTIONAL,
forwardingReason	[8] ForwardingReason	OPTIONAL,
basicServiceGroup	[9] Ext-BasicServiceCode	OPTIONAL,
networkSignalInfo	[10] ExternalSignalInfo	OPTIONAL,
camelInfo	[11] CamelInfo	OPTIONAL,
suppressionOfAnnouncement	[12] SuppressionOfAnnouncement	OPTIONAL,
extensionContainer	[13] ExtensionContainer	OPTIONAL,
...		
alertingPattern	[14] AlertingPattern	OPTIONAL,
ccbs-Call	[15] NULL	OPTIONAL,
supportedCCBS-Phase	[16] SupportedCCBS-Phase	OPTIONAL,
additionalSignalInfo	[17] Ext-ExternalSignalInfo	OPTIONAL,
istSupportIndicator	[18] IST-SupportIndicator	OPTIONAL,
pre-pagingSupported	[19] NULL	OPTIONAL,
callDiversionTreatmentIndicator	[20] CallDiversionTreatmentIndicator	OPTIONAL,
longFTN-Supported	[21] NULL	OPTIONAL }

<b>ForwardingData ::= SEQUENCE {</b>		
forwardedToNumber	[5] ISDN-AddressString	OPTIONAL,
-- When this datatype is sent from an HLR which supports CAMEL Phase 2		
-- to a GMSC which supports CAMEL Phase 2 the GMSC shall not check the		
-- format of the number		
forwardedToSubaddress	[4] ISDN-SubaddressString	OPTIONAL,
forwardingOptions	[6] ForwardingOptions	OPTIONAL,
extensionContainer	[7] ExtensionContainer	OPTIONAL,
...		
longForwardedToNumber	[8] FTN-AddressString	OPTIONAL }

**\*\*\*Next Modified Section\*\*\***

## 17.7.4 Supplementary service data types

```
IMPORTS
  AddressString,
  ISDN-AddressString,
  ISDN-SubaddressString,
  FTN-AddressString,
  IMSI,
  BasicServiceCode,
  AlertingPattern,
```

EMLPP-Priority,  
ExternalSignalInfo

```
FROM MAP-CommonDataTypes {
  ccitt identified-organization (4) etsi (0) mobileDomain (0)
  gsm-Network (1) modules (3) map-CommonDataTypes (18) version6 (6)}
```

.  
.  
.

<b>ForwardingFeature ::= SEQUENCE {</b>		
basicService	BasicServiceCode	OPTIONAL,
ss-Status	[4] SS-Status	OPTIONAL,
forwardedToNumber	[5] ISDN-AddressString	OPTIONAL,
forwardedToSubaddress	[8] ISDN-SubaddressString	OPTIONAL,
forwardingOptions	[6] ForwardingOptions	OPTIONAL,
noReplyConditionTime	[7] NoReplyConditionTime	OPTIONAL,
...±		
longForwardedToNumber	[8] FTN-AddressString	OPTIONAL}

.  
.  
.

<b>SS-ForBS-Code ::= SEQUENCE {</b>		
ss-Code	SS-Code,	
basicService	BasicServiceCode	OPTIONAL,
...±		
longFTN-Supported	[3] NULL	OPTIONAL}

.  
.  
.

**\*\*\*Last Modified Section\*\*\***

## 17.7.8 Common data types

.  
.  
.

EXPORTS

```
-- general data types and values
AddressString,
ISDN-AddressString,
maxISDN-AddressLength,
FTN-AddressString,
maxFTN-AddressString,
ISDN-SubaddressString,
ExternalSignalInfo,
Ext-ExternalSignalInfo,
SignalInfo,
maxSignalInfoLength,
AlertingPattern,
```

```
-- data types for numbering and identification
```

.  
.  
.

<b>ISDN-AddressString ::=</b>
AddressString (SIZE (1..maxISDN-AddressLength))
-- This type is used to represent ISDN numbers.

<b>maxISDN-AddressLength</b> INTEGER ::= 9
--

.  
.  
.

<b>FTN-AddressString ::=</b>
AddressString (SIZE (1..maxFTN-AddressLength))
-- This type is used to represent forwarded-to numbers.

<b>maxFTN-AddressLength</b> INTEGER ::= 15
--



.  
.  
.