3GPP TSG_CN#6 **NP-99464**
ETSI SMG3 Plenary Meeting #6,
Nice, France
13th – 15th December 1999

Agenda item: **5.4.3**

Source: **TSG_N SS ad hoc**

Title: **CRs Work Item USSD enhancement**

Introduction:

This document contains **1** CRs agreed by **TSG_N SS ad hoc** and forwarded to **TSG_N Plenary** meeting #6 for approval.

Tdoc	Spec	CR	Rev	CAT	Rel.	Old Ver	New Ver	Subject
NSS-99144	23.090	001		B		3.0.0	3.1.0	USSD enhancement

3GPP CN SS Ad-hoc meeting
Henley on Thames, 30 Nov – 2 Dec 99

Tdoc N-SS-99-148

CHANGE REQUEST

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

23.090	CR	001r1	Current Version:	3.0.0.

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	CN#6	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

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)* (U)SIM [ ] ME [ ] UTRAN / Radio [ ] Core Network [X]

Source: NSS ad hoc **Date:** 30/11/1999

Subject: USSD Enhancement

Work item: USSD Enhancement

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

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature	X		Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: WI USSD Enhancement introduces principle of application mode in stage 1 of USSD, that is different from the MMI mode and which need adaptations in stage 2 of USSD.

Clauses affected: 5.2.5, 6.2.1

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM 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:

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

5.2.5 Handling of unstructured SS operation at the MS

The MS may at any time receive a USSD operation (request or notification) from the MSC.
If the MS receives a USSD transaction while another USSD transaction (network or mobile initiated) or a non-call related supplementary service transaction is in progress, the MS shall reject the new transaction.
If the MS receives a USSD operation when it is in a state where the MMI required is not possible (e.g. during dialling) it shall reject the operation.
If the MS does not support the alphabet indicated in the USSD operation, it shall inform the network.

If the MS is in a state where it can handle the operation, it shall process the operation as follows:
The MS shall analyse the data coding scheme and decides whether the USSD operation is MMI mode or application mode, . See GSM 02.30 for details of codes

If the data coding scheme corresponds to the MMI mode :

- For a USSD request, the MS shall display the text provided and await user input. If the user enters a response, the MS shall return the response to the MSC, maintaining the transaction. If the user requests release of the transaction, the MS shall release the transaction~~. See GSM 02.30 for details of the MMI.~~

- For a USSD notification, the MS shall display the text provided and send back a response.

If the data coding schemes corresponds to the application mode :

- For a USSD request, the MS shall pass the message to the application addressed in the ME, SIM or TE, and await application response . If the application responds, the MS shall pass the response to the MSC, maintaining the transaction. If the application releases the transaction, the MS shall release the transaction.

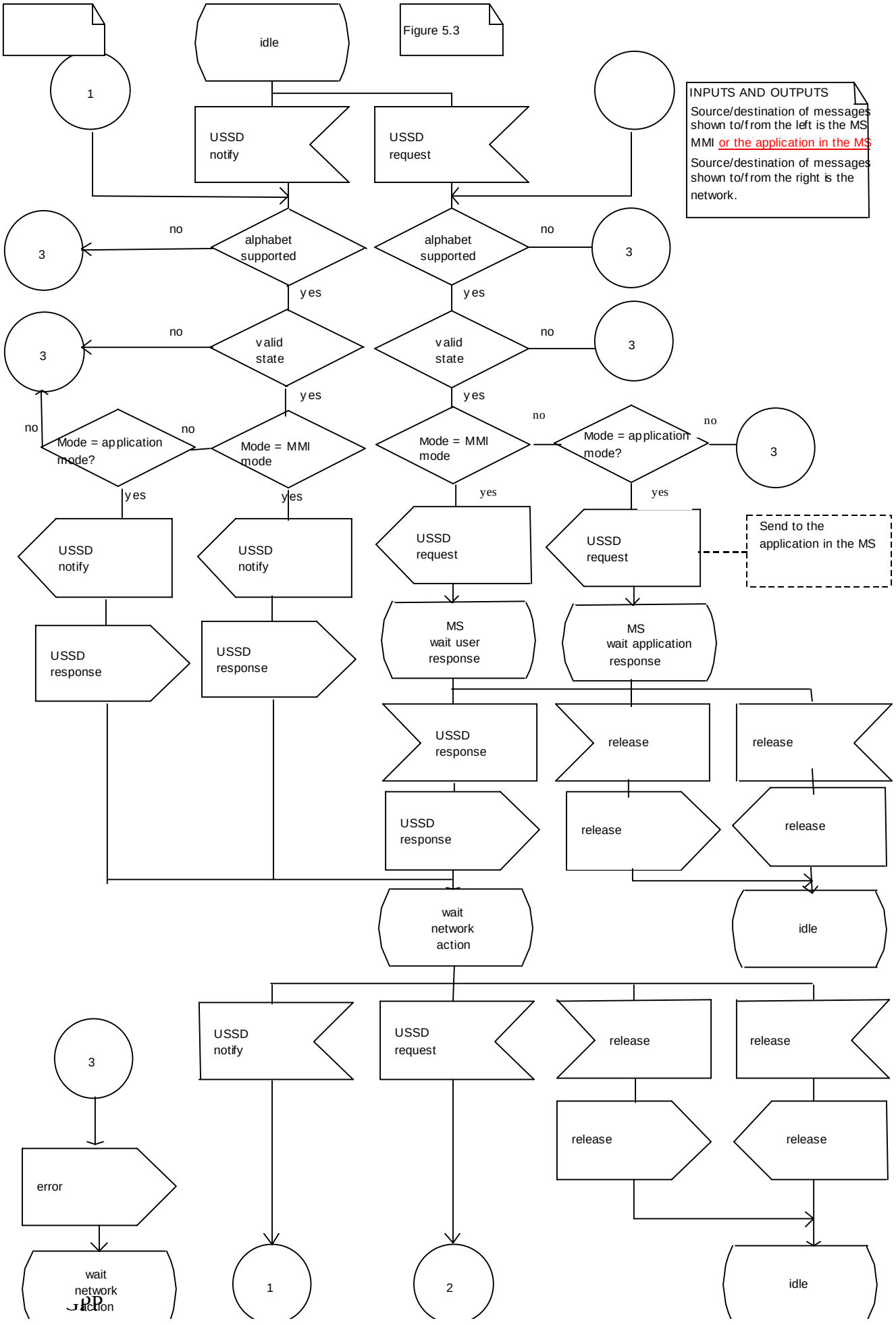
- For a USSD notification, the MS shall pass the message to the application addressed in the ME, SIM or TE, -and send back a response.

After sending the response to a USSD operation, the MS shall wait for the network to release the transaction. If, while awaiting this release, the MS receives any further USSD operations, it shall process them in the normal way.

Process USSD_NI3

390_53(1)

Figure 5.3



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

6.2.1 Handling of USSD request at MS

When the user or the application in the MS make a request which the MS determines is to make use of USSD, the MS shall set up a transaction to the network, send the request to the MSC and await a response. When the MS receives the response, it shall display the information contained to the user- or relay the message to the application in the MS.

While awaiting the response, the MS may receive a network initiated USSD request or notification on the same transaction. If this occurs, the MS shall process that operation (see section 1) and continue to await the response to the mobile initiated request.

If, when the MS determines that a user request is to make use of USSD, the MS is already involved in a USSD or a non-call related supplementary service transaction, the MS shall reject the request.

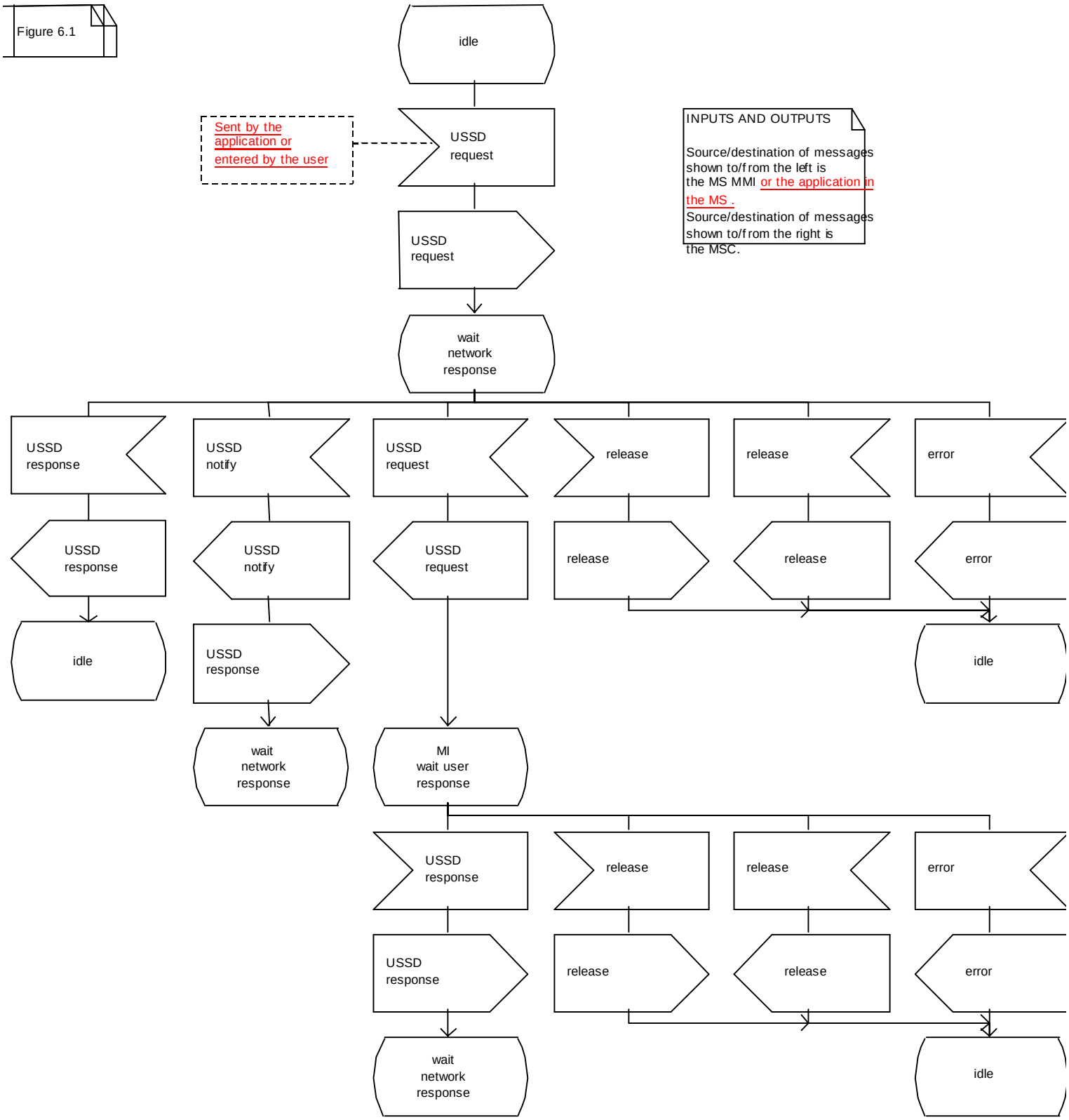


Figure 6.1: Mobile initiated USSD at MS