3GPP TSG_CN
Plenary Meeting #9, Oahu, Hawaii
20th – 22nd September 2000.

Tdoc NP-000559
(Revised NP-000495)

Source: TSG_N WG 4

Title: CRs to R99 Work Item Multicall

Agenda item:

Document for: APPROVAL

Introduction:

This document contains 2 CRs on R99 Work Item Multicall, that have been agreed by TSG_N WG4, and is forwarded to TSG_N Plenary meeting #9 for approval.

SMG#	TDoc	SPEC	CR	REV	PHASE	VERS	SUBJECT	CAT
CN9	N4-000737	23.135	002	4	R99	3.0.0	Requirement on Network to Tear Down Calls to Accept Emergency Calls in Multicall	F
CN9	N4-000756	23.135	004	1	R99	3.0.0	Correction to MT_Multicall SDL	F

e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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

23.135	**CR**	**002r4**	Current Version:	**3.1.0**	

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

For submission to: **TSG-CN#09**   for approval **X**   strategic   *(for SMG*
list expected approval meeting # here   for information   non-strategic **X**   *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 **X**
(at least one should be marked with an X)

Source:	N4	**Date:**	2000-08-31

Subject: Requirement on Network to Tear Down Calls to Accept EC in Multicall

Work item: Multicall

Category: F   Correction   **X**   **Release:**   Phase 2
          A   Corresponds to a correction in an earlier release   Release 96
(only one category   B   Addition of feature   Release 97
shall be marked   C   Functional modification of feature   Release 98
with an X)   D   Editorial modification   Release 99 **X**
                                                                                                          Release 00

Reason for change:

S1 has agreed to remove the following requirement from the stage 1 for Multicall:

- The UMTS network, which supports Multicall, shall accept the emergency call after tearing down existing call(s) if necessary.

The stage 2 for Multicall needs to be updated accordingly to align it with the approved CR in TSG SA WG1.

Clauses affected: 5.2.1, 6.1

Other specs affected: Other 3G core specifications **X** → List of CRs: CR 22.135-xxx
          Other GSM core specifications   → List of CRs:
          MS test specifications   → List of CRs:
          BSS test specifications   → List of CRs:
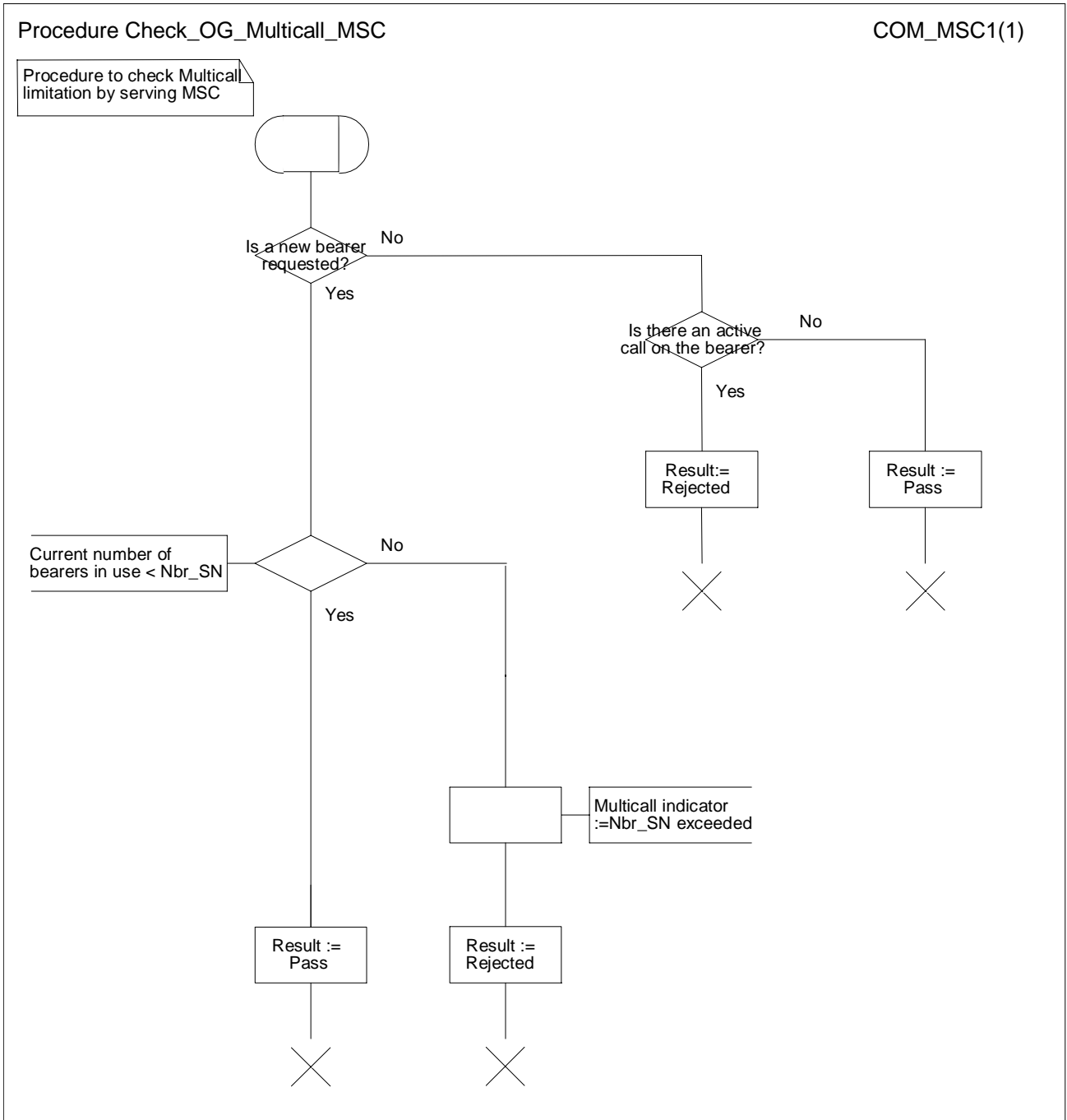   O&M specifications   → List of CRs:

CR was presented and approved in TSG SA WG1.

5.2 MO call

5.2.1 Functional requirements of serving MSC

Figure 8: Procedure Check_OG_Multicall_MSC.

This procedure is called when the MSC receives a Setup message from the MS. After handover procedure completion to another MSC, N_{br}_SN as defined for the target MSC shall overwrite the previous N_{br}_SN.

Procedure Check_OG_Multicall_MSC   COM_MSC1(1)

Procedure to check Multicall
limitation by serving MSC

Is a new bearer
requested?   No

Yes

Is there an active
call on the bearer?   No

Yes

Result:=
Rejected

Result :=
Pass

Current number of
bearers in use < Nbr_SN   No

Yes

Multicall indicator
:=Nbr_SN exceeded

Result :=
Pass

Result :=
Rejected

Procedure Check_MT_Multicall_MSC   CMM_MSC1(1)

Procedure to determine
the way to offer the call
and whether the MS is NDUB

Nbr_User indicated? ──── No ──┐
          │   │
         Yes   Result :=
                                                                   Not provisioned

Current number of terminating ──── No ─────────────────────┐
calls < Ncs_MT   │
          │   │
         Yes   │
                                                            │
New call ──── No ──────────────────┐   │
is speech?   │   Result :=
          │   │   NDUB
         Yes   │
                                   │
Yes ──── Speech call ──── No ──────┤
          exists?   │

───

                              No ──── Current number of bearers in use
                                      < Nbr
                                 │
                                Yes   NOTE: Each call in set-up is
                                      counted as one bearer.

Speech call ──── No ────┐   No ──── All calls are
is in Setup?   │   in Setup?
     │   │   │
    Yes   │   Yes

            Yes ──── Waiting call
                      exists?
                         │
                        No

Result :=   Result :=   Result :=   Result :=
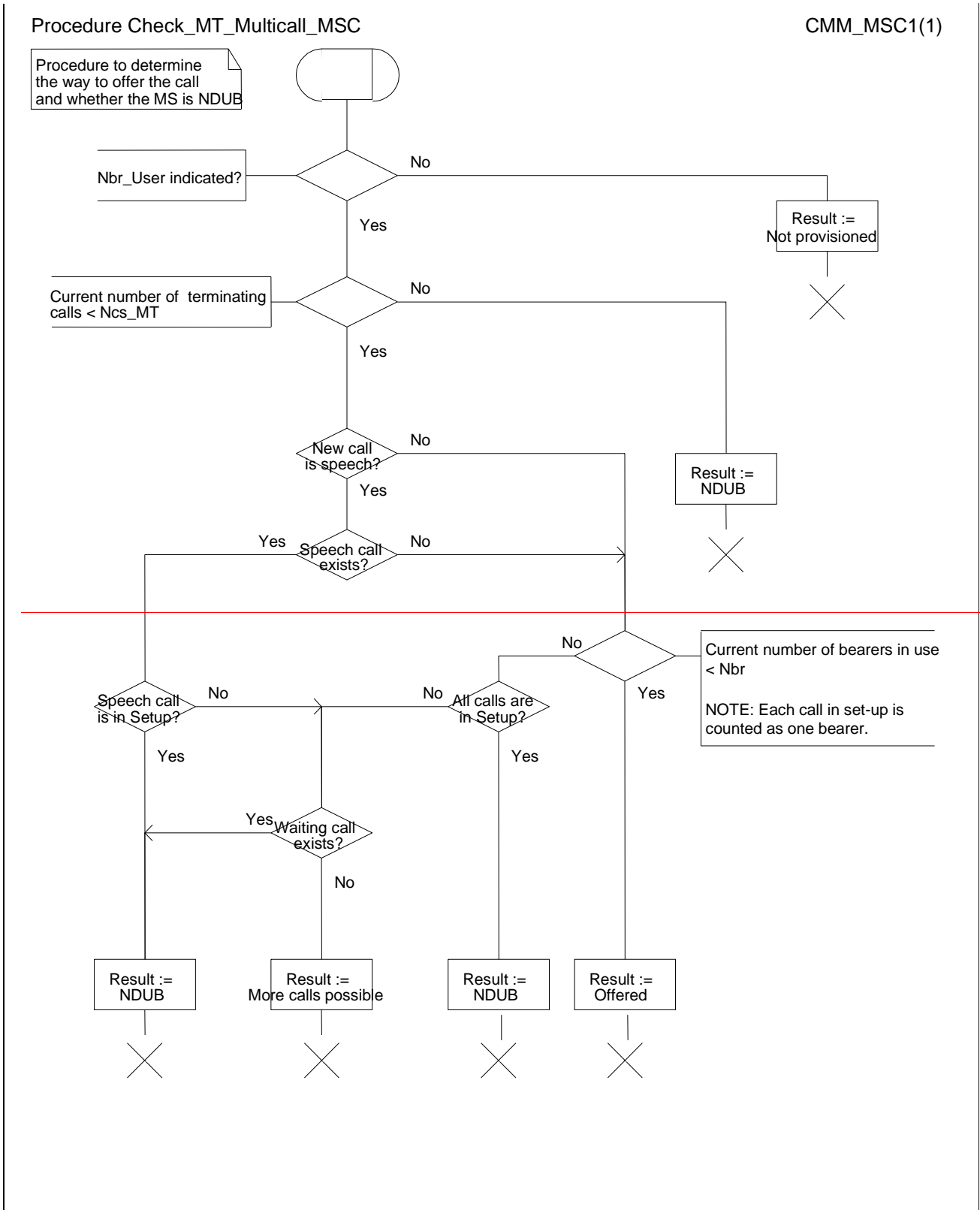 NDUB   More calls possible   NDUB   Offered

Figure 8: Procedure Check_OG_Multicall_MSC

6 Interaction with telecommunication services

6.1 Speech

The Multicall supplementary service does not provide multiple traffic channels for speech calls. Refer to Procedure Check_OG_Multicall_MSC and Procedure Check_MT_Multicall_MSC.

If N_{br}_UE is greater than N_{br}_SN, the mobile station may initiate an Emergency call even if N_{br}_SN has been reached. When the network receives an Emergency call setup message from the mobile station:

- if N_{br}_SN has not been reached, the network shall accept it regardless of N_{br}_SB or N_{br}_User;

- if N_{br}_SN has been reached, the network shall reject the emergency call setup attempt ~~accept the emergency call after tearing down all other active calls~~. The MS shall release one or more existing calls and it shall re-initiate an Emergency call.

The MS shall ensure that an emergency call setup request is acceptable to a serving network which does not support multicall, if necessary by releasing one or more existing calls.

e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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

| **23.135** | CR | **004r1** | Current Version: | **3.1.0** |

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

For submission to: **TSG-CN#09**   for approval **X**   strategic ☐   *(for SMG*
list expected approval meeting # here ↑   for information ☐   non-strategic **X**   *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 **X**
(at least one should be marked with an X)

Source: CN   **Date:**   2000-08-31

Subject: Correction to MT_Multicall SDL

Work item: Multicall

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

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

Reason for change: Figure 10 needs to be replaced in order to reflect CR 001 correctly.

Clauses affected: 5.3.1

Other specs affected:
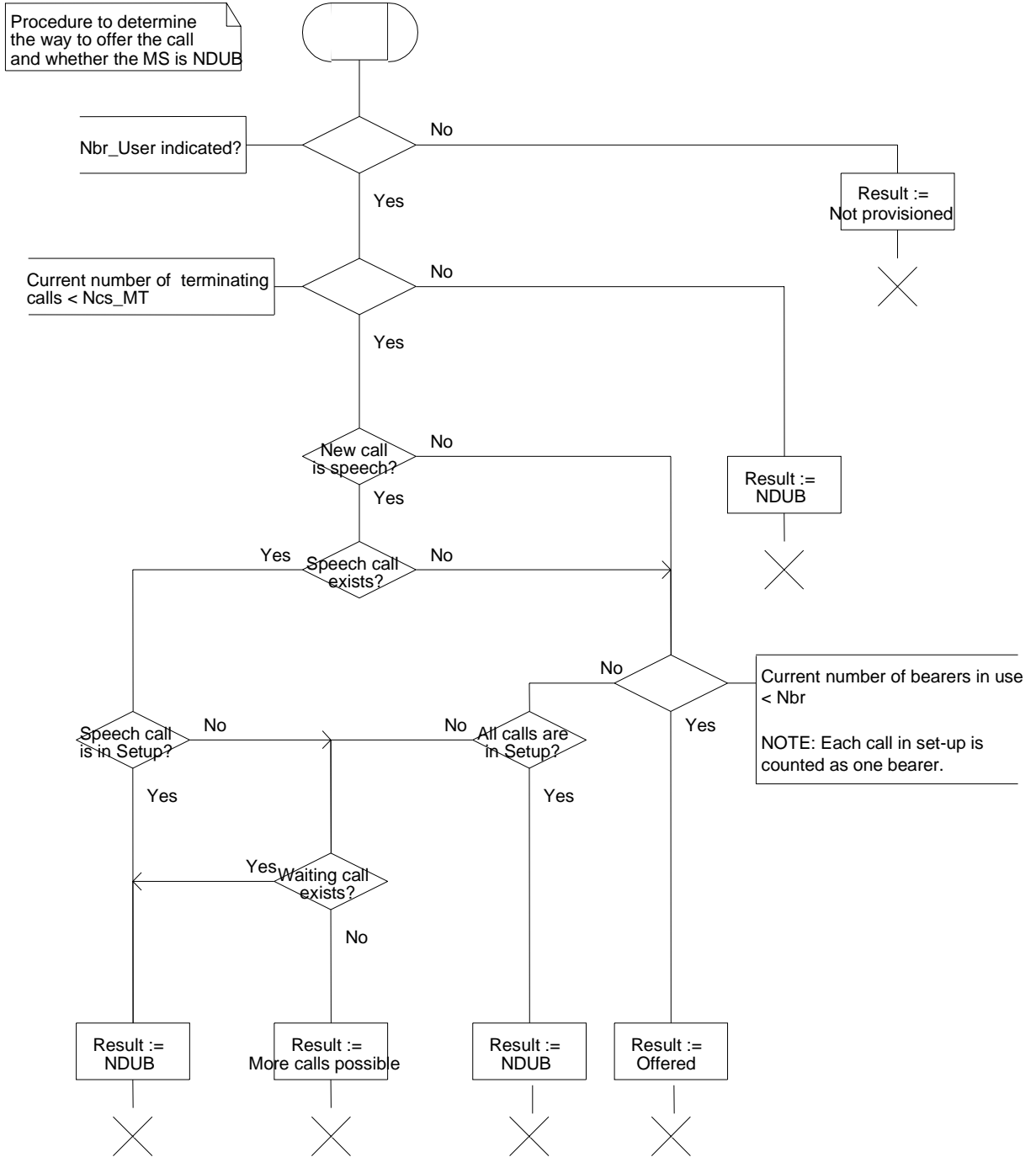
Other 3G core specifications	☐	→ List of CRs:	
Other GSM core specifications	☐	→ List of CRs:	
MS test specifications	☐	→ List of CRs:	
BSS test specifications	☐	→ List of CRs:	
O&M specifications	☐	→ List of CRs:	

5.3 MT call

5.3.1 Functional requirements of serving MSC

Procedure Check_MT_Multicall_MSC CMM_MSC1(1)

Procedure to determine
the way to offer the call
and whether the MS is NDUB

Nbr_User indicated? — No → Result := Not provisioned

Yes

Current number of terminating calls < Ncs_MT — No → Result := NDUB

Yes

New call is speech? — No

Yes

Speech call exists? — No

Yes

Current number of bearers in use < Nbr

NOTE: Each call in set-up is counted as one bearer.

Speech call is in Setup? — No

Yes

All calls are in Setup? — No

Yes

Waiting call exists? — Yes
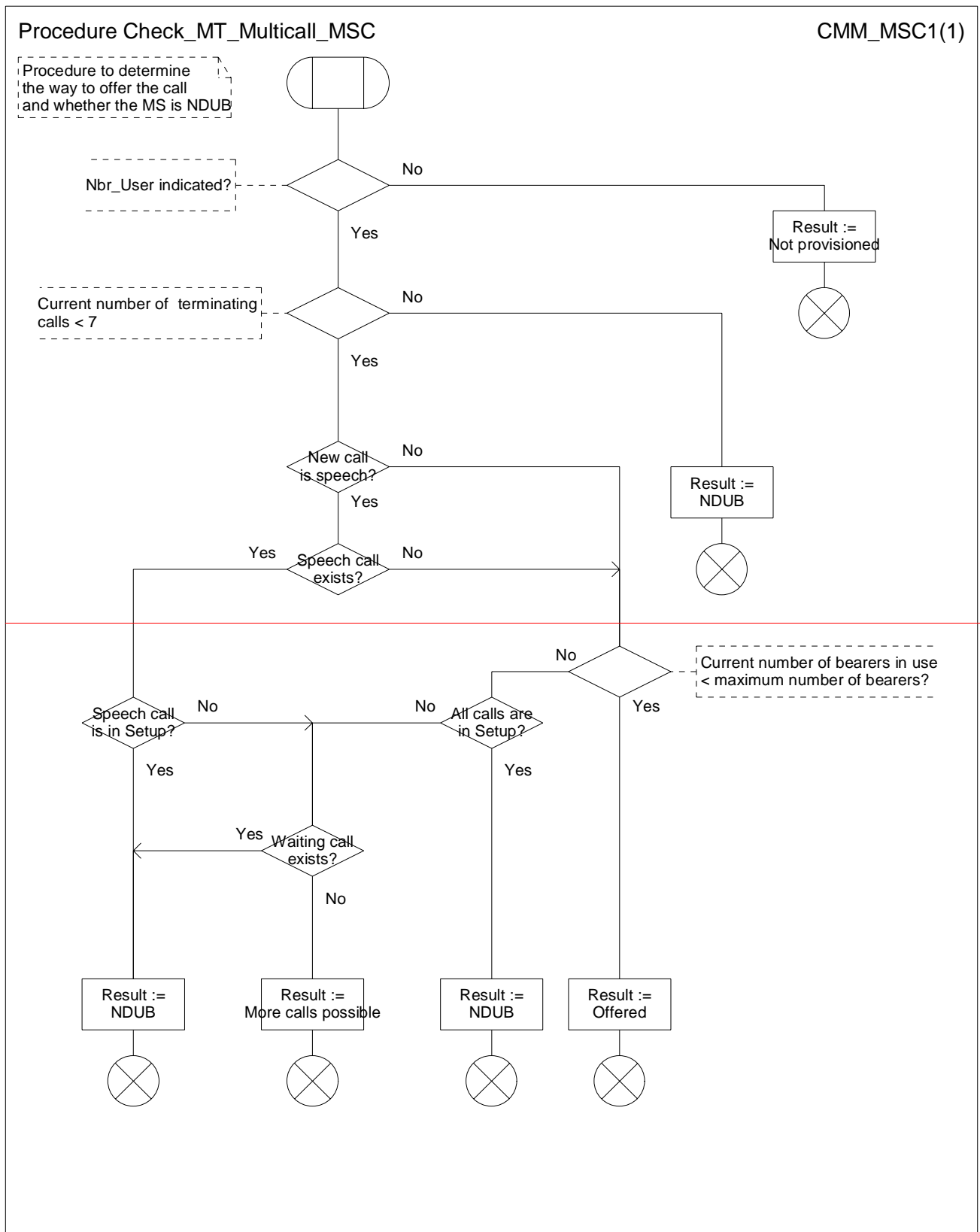
No

Result := NDUB

Result := More calls possible

Result := NDUB

Result := Offered

Figure 10: Procedure Check_MT_Multicall_MSC