

**3GPP TSG\_CN**  
**Plenary Meeting #8, Dusseldorf, Germany**  
**21<sup>st</sup> – 23<sup>rd</sup> June 2000.**

**Tdoc NP-000244**

**Source:** TSG\_N WG 2  
**Title:** CRs to 3G Work Item CAMEL phase 3 - Stage 2, Category F (1)  
**Agenda item:** 6.2.2  
**Document for:** APPROVAL

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**Introduction:**

This document contains 1 CRs on **Work Item CAMEL phase 2**, that have been agreed by **TSG\_N WG 2**, and are forwarded to **TSG\_N Plenary meeting #8** for approval.

Tdoc	Spec	CR	Rev	CAT	Rel.	Old Ver	New Ver	Subject
N2A000409	23.078	146	2	F	R99	3.4.0	3.5.0	Clarification on TDP Analyzedinfo Criteria checks

# CHANGE REQUEST

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

**23.078 CR 146r2**

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#8**  
 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:** **27 March 2000**

**Subject:** Clarification on TDP Analyzed Info Criteria checks

**Work item:** CAMEL Phase 3

**Category:** F Correction  **Release:** 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   
 Release 00   
 (only one category shall be marked with an X)

**Reason for change:** The current model for number comparison for trigger criteria checks at TDP Analyzed Info is not flexible enough. A new mechanism needs to be introduced.

**Clauses affected:**

**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:**

#### 4.2.1.2.2 Criteria at DP Analysed\_Information

##### 4.2.1.2.2.1 General

The criteria for a mobile originating call are checked in the originating MSC. The criteria for a mobile forwarded call are checked in the forwarding MSC.

For early forwarded calls in the GMSC, the HLR shall always include the trigger criteria in the subscriber data sent to the GMSC. Reason is that the HLR can not check the criteria applicable at DP Analysed Info, since the number that the criteria check shall be based on, may be modified by a Mobile Terminating or Mobile Forwarding Service Logic for this call.

For optimally routed late forwarded calls, the MSC shall always include the trigger criteria in the RCH message sent to the GMSC. Reason is that the MSC can not check the criteria applicable at DP Analysed Info, since the number that the criteria check shall be based on, may be modified by a Mobile Terminating or Mobile Forwarding Service Logic for this call.

The following criteria are applicable for DP Analysed\_Information:

- Destination number triggering criterion: The HLR may store a list of up to 10 destination numbers. There is no restriction on the nature of address indicator. There is no restriction on the ~~number-plan~~numbering plan indicator.

For MO calls, triggering at DP Analysed\_Info shall be based on the called party number received over the access network.

~~Any service selection information, including \* and # digits, or carrier selection information, dialled by the subscriber, shall be removed from the number before conditional triggering check takes place. No translation shall be performed on the number for triggering purposes.~~

~~Refer to 3G TS 22.030 [22] for the codes and values for service feature codes.~~

For MF calls at the VMSC, triggering at DP Analysed\_Info shall be based on the number received over the access network (the Deflected-to-Number in the case of Call Deflection), the Forwarded-to-Number retained in the VLR, or the Destination Routing Address in the Connect operation from the SCF during a Mobile Terminated or Mobile Forwarded CAMEL Service.

~~Any service selection information or carrier selection information shall be removed from the number before conditional triggering check takes place. No translation shall be performed on the number for triggering purposes.~~

For MF calls at the GMSC, triggering at DP Analysed\_Info shall be based on the Forwarded-to-Number received from HLR, on the Destination Routing Address received in the Connect operation from SCF during a Mobile Terminated or Mobile Forwarded CAMEL Service, or on the Forwarded-to-Number received in the RCH message.

~~Any service selection information or carrier selection information shall be removed from the number before conditional triggering check takes place. No translation shall be performed on the number for triggering purposes.~~

##### 4.2.1.2.2.2 Removal of information significant to the serving entity

In order to decide whether triggering shall take place, the trigger criteria need to be compared with the address information. Before the comparison takes place the following information shall be removed from the destination address information:

- Operator specific service selection information that is recognised and treated locally in the serving entity. This shall not lead to a change of the type of number indicator of the address information.
- Carrier selection information. If the removal of carrier selection information also removes international or national (trunk) prefixes (depending on regulatory requirements), then the type of number indicator of the address information shall be changed to "international number" or "national (significant) number" respectively. Otherwise the type of number indicator shall remain unchanged.

The address information in a subsequent Initial DP message at DP Analysed\_Info shall not contain the removed information, however in the further call handling the serving entity shall invoke the requested services (e.g. carrier selection).

#### 4.2.1.2.2.3 Number comparison

The following procedure shall be performed for the comparison of the destination number triggering criterion and the address information in the given order.

1. The numbering plan indicators of both numbers are compared. The numbering plan indicators match if they are set to the same value or if one of the numbering plan indicators is set to "unknown". If there is no match of the numbering plan indicators then the destination number does not match the destination number triggering criterion. If there is a match of the numbering plan indicators the comparison procedure shall continue as follows.
2. The type of number indicators of both numbers are compared. If there is a match of the type of number indicator, then the check shall be performed by comparing the digits. If there is no match of the type of number the comparison procedure shall continue as follows.
3. If there are other type of number indicators present than "unknown", "national (significant) number" or "international number" then the destination number does not match the destination number triggering criterion. Otherwise the comparison procedure shall continue as follows.
4. If there is a number with type of number "unknown" this number shall be translated based on the numbering plan of the serving entity in either of the following ways:
  - if the leading digits refer to an international prefix, those digits shall be removed and the type of number shall be set to "international number".
  - if the leading digits refer to a national (trunk) prefix, those digits shall be removed and the type of number shall be set to "national (significant) number".

If the leading digits refer neither to an international prefix nor to a national (trunk) prefix, then the destination number does not match the destination number triggering criterion.

If there is a match of the type of number indicator after this number modification, then the check shall be performed by comparing the digits, otherwise the comparison procedure shall continue as follows.

5. If there is a number with type of number "national (significant) number" this number shall be translated based on the numbering plan of the serving entity to international format by adding the country code of the serving entity to the number string. After this modification both numbers shall be in international format and shall be checked by comparing the digits.

~~In this~~ If the number digits of the address information are compared with the number digits of the destination number triggering criterion, then there is a match ~~test the destination number matches one of the destination number strings in the list~~ if:

- ~~— the nature of address of the destination number is the same as the nature of address of the destination number string~~
- the destination number is at least as long as the destination number string ~~of~~ in the destination number triggering criterion ~~list~~, and
- all the digits in the destination number string ~~in~~ of the destination number triggering criterion ~~list~~ match the leading digits of the destination number.

The check described in this section shall be repeated for every number contained in the destination number triggering criterion of the D-CSI until a match is recognised and DP Analysed\_Info is triggered.

The procedures for the destination number triggering criterion check for the N-CSI are network specific.

The modifications of the address information described in this section shall be only be done for comparison purposes, i.e. they shall not affect the format of the destination address information sent in the Initial DP message.