MORANE Project Team

Title: **Change Request**

CHANGE REQUEST		MCR Number: *MCR 00-02.1*
MORANE Document		*SSRS* *Ref. A 04/22 T 6002 3*
Status	Approved ☑ Rejected [ ] Postponed [ ]	
Source	*MORANE Project Team*	
Date	*30/06/00*	
Subject	*Location Addressing could be time or date dependent*	
Reason for change	*Not included in the FFFS for Location Dependent Addressing latest version*	
Consequence of not accepting this change	*Lack of clarity*	
Details of change and sections affected	*Add a new paragraph (5.2.4) in Location Dependent Addressing chapter (5.2)*	
The following pages with the proposed changes marked are annexed	*Section 5.2.3 and 5.2.4*	
Impact on other specifications	*None*	
Impact on trials	*None*	
Other comments	*None*	

5.2.3 Routing of a MOC based on the provided Functional Number

The GSM radio system infrastructure has to provide a basic telecommunication service which applies a location dependent routing to an address given by static entries in the internal databases of the switching sub-system.

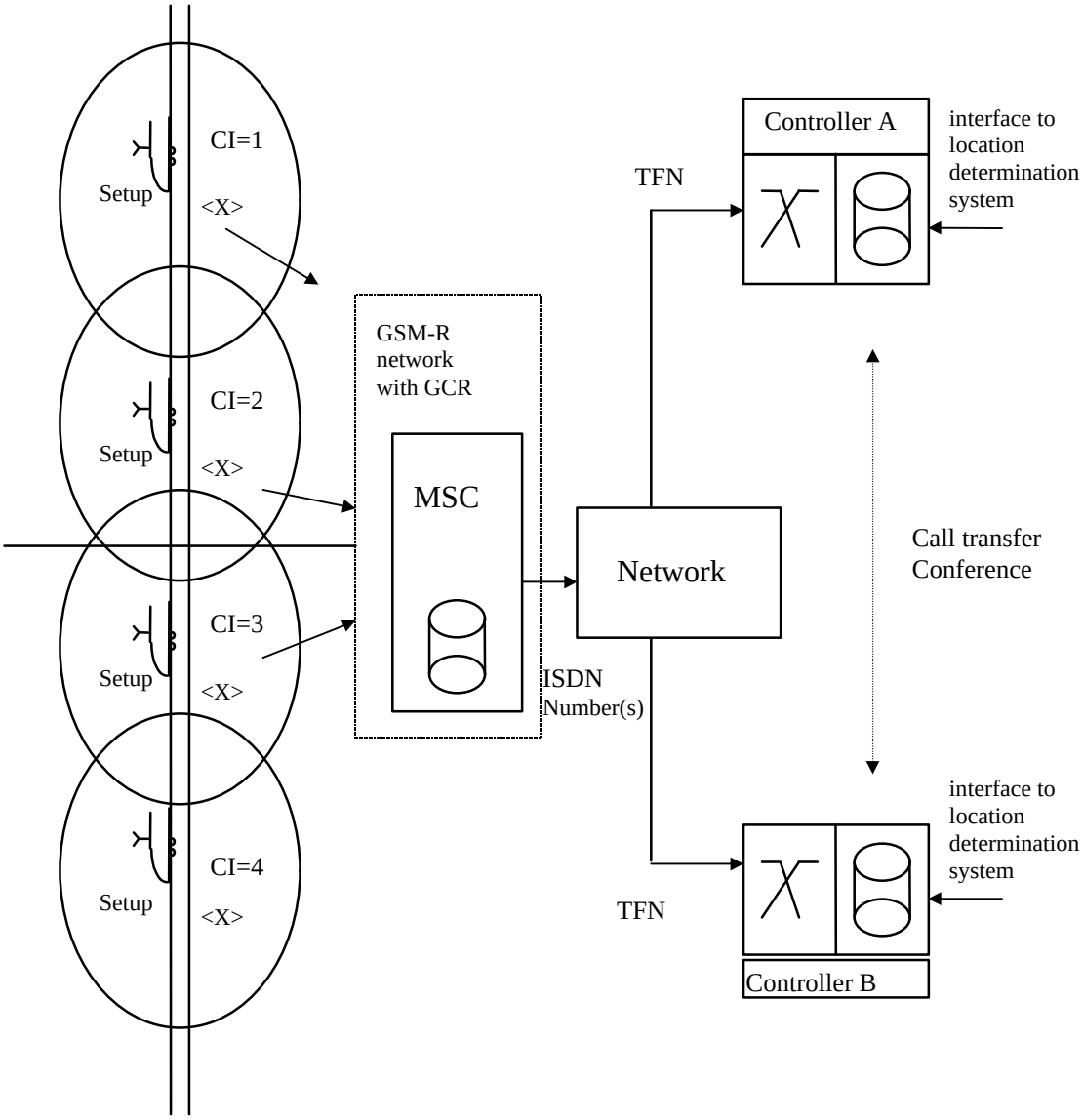
The Location Dependent Addressing mechanism provides a Short Code as the number to be called, the MSC has to apply a Cell Specific Routing taking into account the Short Code provided by the mobile terminal in the setup message. The Global Cell Identifier provided for each call to the MSC consists of two parts: the Location Area Code (LAC) and the Cell Identifier (CI). Therefore the radio cell is identified in a uniquely. Each possible Short Code used within a radio cell is attached to an ISDN number representing the address of the controller to which the call has to be routed. The NSS has to retrieve the ISDN number by accessing its database and setting up the appropriate call afterwards.

These database entries may be managed by OMC operations to realise the mapping of Short Codes to ISDN numbers.

If no unique mapping of the Short Code to a single ISDN number is possible, the MSC can set up a call to an external device (e.g. PABX), which is in charge of handling those calls. The PABX functionality can be co-located with the controller equipment or realised as central device.

In the following example the Short Code X is used for calls to the correct secondary controller. The MSC can route calls from cells with cell identity 1 and 4 (CI=1,4) directly to the correct controller. For calls from cell identity 2 and 3 (CI=2,3) the call has to be routed to an external device (e.g. PABX) in charge of the call handling.

LAC	CI	Short Code	ISDN number	Controller
1	1	X	0179 200 0001	A
1	2	X	0179 200 0001 0179 200 0002	A B
1	3	X	0179 200 0002 0179 200 0001	B A
1	4	X	0179 200 0002	B


CI=1
Setup
<X>
CI=2
Setup
<X>
CI=3
Setup
<X>
CI=4
Setup
<X>
GSM-R
network
with GCR
MSC
Network
ISDN
Number(s)
TFN
TFN
Controller A
Controller B
interface to
location
determination
system
interface to
location
determination
system
Call transfer
Conference

5.2.4 Time and/or date dependent routing

The telephone number or the called party might change with date or during the day, for instance in case of night concentrations. Therefore the fixed-line controllers should have the capability to forward the incoming calls.

For fixed-line controllers, CFU might be used even if the external network is a non-ISDN network, but the external networks should offer at a minimum an access to digital switches. If the fixed-line controllers are directly connected to the MSC (e.g. using a PABX), the CFU supplementary service has to be provided by the PABX.