CR-Form-v7

CHANGE REQUEST

⌘ **22.234 CR 004** ⌘**rev 1** ⌘ Current version: **6.0.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ **X**   ME **X** Radio Access Network ☐   Core Network **X**

Title: ⌘	Selection of a PLMN accessed via an I-WLAN
Source: ⌘	SA1 chairman
Work item code:⌘ WLAN	***Date:*** ⌘ 01/05/2004

Category: ⌘ **B**	***Release:*** ⌘ REL-6

Use one of the following categories:
 F (correction)
 A (corresponds to a correction in an earlier release)
 B (addition of feature),
 C (functional modification of feature)
 D (editorial modification)
Detailed explanations of the above categories can
be found in 3GPP TR 21.900.

Use one of the following releases:
 2 (GSM Phase 2)
 R96 (Release 1996)
 R97 (Release 1997)
 R98 (Release 1998)
 R99 (Release 1999)
 Rel-4 (Release 4)
 Rel-5 (Release 5)
 Rel-6 (Release 6)

Reason for change: ⌘	Description of procedure for the selection of PLMN when connected via I-WLAN
Summary of change:⌘	Reformatting of paragraph 6.1.1 in line with the PLMN selection procedure described in 22.011
Consequences if not approved: ⌘	No detailed requirement exist to perform a PLMN selection when connected via a I-WLAN

Clauses affected: ⌘	6.1.1

	Y	**N**		
Other specs affected: ⌘	**X**		Other core specifications ⌘	TS23.234, TS 24.234
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

6.1.1   Network selection

The UE shall support both manual and automatic network selection mechanisms (modes) as standardized.

The UE shall use the last network selection mode used, as the default mode, at every switch-on.

The user shall be given the opportunity to change the network selection mode at any time.

When selecting a PLMN that is accessed via an interworked WLAN the UE shall be able to determine if the home or preferred PLMNs are available. The I-WLAN and PLMN selection shall adhere to operator and end user preferences using similar procedures as for Network Selection without WLAN interworking. This set of preferences may be different from the preferences used for direct 3GPP access. In manual network selection the user shall be able to request a list of available PLMNs via interworked WLANs. The detailed procedures are described below.

> NOTE 1:   The 3GPP operator may have agreements with multiple I-WLANs in the area and has preference over which WLAN to connect to based on the services supported.

> NOTE 2:   The adaptation of the Network Selection procedures to the WLAN interworking environment should take into account performance criteria (e.g. power consumption, network load).

> NOTE 3:   The preference of a I-WLAN and connected PLMN may change from one country to another, even when the I-WLAN identity is unchanged.

6.1.1.1 PLMN selection procedures

General

For the purpose of selecting a PLMN two lists may be present in the UICC: the "User Controlled PLMN Selector list for I-WLAN" and the "Operator Controlled PLMN Selector list for I-WLAN". It is not mandatory for the UICC to support these lists, however if the "Operator Controlled PLMN Selector list for I-WLAN" is supported then the "User Controlled PLMN Selector list for I-WLAN" shall also be present. Both the lists contain the preferred PLMNs for I-WLAN in priority order, and the User Controlled PLMN Selector list for I-WLAN has higher priority than the Operator Controlled PLMN Selector list for I-WLAN.

The purpose of the procedure is to enable the UE to find a I-WLAN, however, in case no PLMN is found to be supported by any of the available WLANs, the behaviour of the UE is not specified.

For the purpose of selecting the preferred I-WLAN in case multiple I-WLANs can support the connection to the desired PLMN and for optimising the PLMN selection, the UICC may contain a WLAN identities' preference lists provisioned by the operator.

A) Automatic selection mode

In the automatic mode the UE shall perform the following procedure:

1.   For each of the WLANs available the UE shall attempt to discover the PLMNs available via the particular WLAN. If the UE receives a list of available PLMNs, then

   1a) If the HPLMN is found then the procedure is stopped and the HPLMN is selected.

   1b) If the HPLMN is not found, the UE creates a list of PLMNs accessible over the particular WLAN

2. Among all the PLMNs obtained in step 1b), select a PLMN following this order:

   i)   PLMNs contained in the "[0] User Controlled PLMN Selector list for I-WLAN" data file in the USIM in priority order, if the list is available;

   ii)   PLMNs contained in the "Operator Controlled PLMN Selector list for I-WLAN " data file in the USIM in priority order, if the list is available;

   iii) PLMNs contained in the "User Controlled PLMN Selector list with access technology", if available;

iv) PLMNs contained in the "Operator Controlled PLMN Selector list with access technology", if available;

v) PLMNs contained in the optional "[0]User Controlled PLMN Selector list for I-WLAN " in the ME in priority order, if the list is available;

vi) PLMNs contained in the optional "Operator Controlled PLMN Selector list for I-WLAN " in the ME in priority order, if the list is available;

vii) any other PLMN not included in the lists (randomly)

3. Attempt association with the WLAN AP providing connection to the PLMN selected in step 2 and attempt authentication with the selected PLMN.

B) Manual selection mode

In manual selection mode the UE shall perform the following procedure:

1. For each of the available WLANs the UE shall attempt to discover the PLMNs available via the particular WLAN.

2. If the UE receives a list of available PLMNs, then the UE presents the available PLMNs in the following order:

i) HPLMN;

ii) PLMNs contained in the "[0] User Controlled PLMN Selector list for I-WLAN " data file in the USIM in priority order, if the list is available;

iii) PLMNs contained in the "Operator Controlled PLMN Selector list for I-WLAN " data file in the USIM in priority order, if the list is available;

iv) PLMNs contained in the "User Controlled PLMN Selector list with access technology", if available;

v) PLMNs contained in the "Operator Controlled PLMN Selector list with access technology", if available;

vi) PLMNs contained in the optional "[0]User Controlled PLMN Selector list for I-WLAN " in the ME in priority order, if the list is available;

vii)PLMNs contained in the optional "Operator Controlled PLMN Selector list for I-WLAN " in the ME in priority order, if the list is available;

viii) any other PLMN not included in the lists (in random order)

In case more than one WLAN AP gives access to the same PLMN, an indication of the WLAN identity should also be presented to the user.

NOTE: it is possible to have repetitions of the same PLMN in the list presented to the user

3. Upon user selection of the desired PLMN the UE shall attempt to register on this PLMN. If more than one WLAN access point offer connection to the selected PLMN[0], then the UE shall attempt registration via the selected WLAN access point. To do so, the UE associates with the AP supporting the PLMN selected by the user and attempt authentication.