3GPP TSG RAN Meeting #23 RP-040047
Phoenix, US, 10 - 12 March 2004

TSG-SA WG1 #23 **S1-040201**
Innsbruck, Austria, 12 - 16 Jan 2004 **Agenda Item: 8**

Title: LS on Network Selection

Release: Rel-6

Source: **SA1**
To: CN1
Cc: GERAN, RAN2, RAN

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Attachments: S1-040200

1. Overall Description:

SA1 would like to inform CN1 that a CR has been approved against 22.011 regarding Periodic network selection. This new requirement ensures that periodic network selection does not lead to changing of access technology when selected PLMN is the registered PLMN, the intention being to have a more stable system (avoiding ping-pong effect).

SA1 is aware that Network Selection is currently a subject of discussion within CN1. As such, SA1 kindly request CN1 to provide an appropriate solution to fulfil this new requirement and hope that it will solve CN1 current issues on network selection procedures.

SA1 will be pleased to receive any comment from CN1 on that matter and will provide any clarification if necessary.

2. Actions:

To 3GPP CN1:

ACTION: SA1 respectfully requests 3GPP CN1 to consider the new requirement and produce appropriate mechanism accordingly.

3. Date of Next TSG-SA1 Meetings:

SA1#24	10 – 14 May 2004	Shenzhen, China	ZTE

TSG-SA WG1 #23 **S1-040200**
Innsbruck, Austria, 12th – 16th January 2004 **Agenda Item: 8.0**

CR-Form-v7

CHANGE REQUEST

⌘ **22.011** **CR** **054** ⌘ **rev** **-** ⌘ Current version: **6.2.0** ⌘

*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⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Periodic network selection attempts enhancement
Source:	⌘	Orange
Work item code:	⌘	TEI
Date:	⌘	09/01/2004
Category:	⌘	**C**
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:	⌘	Currently, the requirement for periodic network selection is not accurate enough and could lead to unsatisfactory or unstable UE behaviour when selecting PLMN
Summary of change:	⌘	Periodic network selection shall not lead to change of access technology within the registered PLMN
Consequences if not approved:	⌘	Potential unstable system due to ping-pong effect between PLMN reselection and cell reselection
Clauses affected:	⌘	5.2.2.5

	Y	N		
Other specs affected: ⌘	Y		Other core specifications	⌘
	?		Test specifications	
	?		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.

3.2.2.5 Periodic network selection attempts

A UE in Automatic Mode shall make periodic attempts to look for a higher priority PLMN of the same country as the currently received PLMN. For the ranking of PLMNs the UE shall use the order used in subclause 3.2.2.2. Moreover, periodic network selection shall not lead to change of access technology within the registered PLMN.

In the case that the UE has stored a list of equivalent PLMNs, the UE shall only select a PLMN if it has a higher priority than all the PLMNs, in the list of equivalent PLMNs, which are of the same country as the currently registered PLMN.

NOTE: In the context of this 3GPP TS, the term country is to be interpreted not as a political entity but as a single Mobile Country Code (MCC). For instance the USA has multiple MCC. The USA case is in fact treated as an exception in the 3GPP specifications. For all other countries, multiple MCCs may be used, however the specifications have not taken this into account and there could be adverse effects such as the UE being unable to detect that multiple MCCs are within the same country.

The UE shall only make reselection attempts while in idle mode for circuit services.

The interval between attempts shall be stored in the SIM/USIM. Only the service provider shall be able to select for which of the previous situations, periodic network selection shall be attempted and to set the interval, which shall be between 6 minutes and 8 hours, with a step size of 6 minutes. One value shall be designated to indicate that no periodic attempts shall be made.

In the absence of a permitted value in the SIM/USIM, or the SIM/USIM is phase 1 and therefore does not contain the datafield, then a default value of 60 minutes, shall be used by the UE.

NOTE: Use of values less than 60 minutes may result in excessive ME battery drain.