

Agenda Item: 6.3.3
Source: T3
Title: CRs to TS 31.900
Document for: Approval

This document contains the following change requests that are approved by 3GPP TSG T3 and forwarded to 3GPP TSG T#27 for approval:

Doc-2nd- Level	Spec	CR	Rev	Rel	Subject	Cat	Ver- old	Ver- new	WI
T3-050168	31.900	016		Rel-6	Additional USIM Support for 2G Terminals of R99 and Rel-4	F	6.0.0	6.1.0	TE16

3GPP TSG-T3 Meeting #34
Barcelona, Spain, 08 – 11 February 2005

Tdoc # T3-050168

CR-Form-v7.1
<h2 style="margin: 0;">CHANGE REQUEST</h2>
⌘ 31.900 CR 016 ⌘ rev - ⌘ 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 ME Radio Access Network Core Network

Title:	⌘ Additional USIM Support for 2G Terminals of R99 and Rel-4		
Source:	⌘ T3		
Work item code:	⌘ TEI-6	Date:	⌘ 10/02/2005
Category:	⌘ F	Release:	⌘ Rel-6
	Use <u>one</u> 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 <u>one</u> of the following releases: Ph2 (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) Rel-7 (Release 7)

Reason for change:	⌘ SA rejected a change to 21.101 to explicitly include USIM support for 2G terminals of R99 and Rel-4. However, the fact that this is an allowed option was not questioned.
Summary of change:	⌘ Quotes of 21.101 in TR 31.900 are re-aligned to reflect the current state of the core specs.
Consequences if not approved:	⌘ TR 31.900 would be inconsistent with the core specs.

Clauses affected:	⌘ Section 5										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="width: 20px;"> </td> <td style="width: 20px;">X</td> </tr> <tr> <td style="width: 20px;"> </td> <td style="width: 20px;">X</td> </tr> <tr> <td style="width: 20px;"> </td> <td style="width: 20px;">X</td> </tr> </table> Other core specifications	Y	N		X		X		X	⌘	
Y	N										
	X										
	X										
	X										
	Test specifications	⌘									
	O&M Specifications	⌘									
Other comments:	⌘										

5 Interworking between the ME and the ICC

The 3G system is designed to be compatible with GSM and several interworking requirements apply. Regarding the ICC/ME interface, some basic requirements can be identified in the 3G standards. They are differing between the subsequent releases:

For R99, the following applies:

- In 3G TS 22.100 [4]: "The UMTS mobile terminal shall support phase 2 and phase 2+ GSM SIMs as access modules to UMTS networks." In other words: A R99 3G ME shall support a 2G ICC.
- In 3G TS 22.101 [5]: "It shall be possible to use the UICC in 2G terminals to provide access to GSM networks. In order to achieve that option, it shall be possible to store a module containing 2G access functionalities on the UICC which shall be accessed via the standard GSM SIM-terminal interface. ~~In addition the 2G terminal may support the USIM.~~" In other words: The R99 UICC may contain a SIM application ~~and the R99 2G terminal may additionally have a USIM interface.~~
- Additionally, a 2G terminal of R99 may provide a USIM interface.

For Rel-4, 3G TS 22.100 [4] does not exist. There are however similar statements in 3G TS 22.101 [5]:

- "The basic mandatory UE requirements are: Support for GSM phase 2 and 2+ SIM cards [...]", meaning that also a Rel-4 ME does work with a 2G ICC.
- "It shall be possible to use the UICC in 2G terminals to provide access to networks supporting GERAN (including networks based on earlier GSM specifications). In order to achieve that option, it shall be possible to store a module containing 2G access functionalities on the UICC, which shall be accessed via the standard SIM-terminal interface. ~~In addition the 2G terminal may support the USIM.~~" In other words: The Rel-4 UICC may contain a SIM application ~~and the Rel-4 2G terminal may additionally have a USIM interface.~~
- Additionally, a 2G terminal of Rel-4 may provide a USIM interface.

Therefore, in R99 and Rel-4 we have the same situation. Note that it is not a mandatory requirement in R99 and Rel-4 that a USIM has to be supported by a 2G ME. However, it is optional and in addition to the 2G SIM interface. In order to allow a 3G UICC to work in a 2G ME where the USIM is not supported, it is feasible to put a SIM application (according to TS 11.11 [7] / TS 51.011 [8]) onto the UICC in addition to the USIM.

For Rel-5, the requirement for 2G MEs to support 2G ICCs was deleted from 3G TS 22.101[5], instead the following statements were inserted:

- "In Release 5 and later, terminals supporting only GERAN shall support USIM." with a note "It is strongly recommended that manufacturers implement SIM support on GERAN only terminals until the population of SIMs in the market is reduced to a low level."
- "The basic mandatory UE requirements are: Support for USIM. Optional support of GSM phase 2, 2+, 3GPP Release 99 and Release 4 SIM cards. [...] Support for the SIM is optional for the UE, however, if it is supported, all the mandatory requirements for SIM shall be supported in the UE [...]."

This means basically that for 2G and 3G MEs of Rel-5 the support of 2G SIMs is now optional and it is mandatory (in particular for the 2G ME) to support the USIM. Note that although a SIM application on the UICC is no longer mentioned, it is still essential (and certainly allowed) to support Rel-4 and earlier terminals that do not optionally accept a USIM with a SIM application on Rel-5 UICCs. In this case, the Rel-4 SIM specifications apply.

For the ICC/ME interface, with two main types of ME (3G and 2G) and two main types of ICC (UICC and SIM), four different scenarios can be identified. They are described in the following sections with appropriate splits into sub-sections if release specific differences have to be taken into account.