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**Source:** SA1  
**Title:** CRs to 22.101 on SIM Support in Rel5/6  
**Document for:** Approval  
**Agenda Item:** 7.1.3

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| SA Doc    | Spec   | CR  | Rev | Phase | Cat | Subject                           | Old Vers | New Vers | SA1 Doc   |
|-----------|--------|-----|-----|-------|-----|-----------------------------------|----------|----------|-----------|
| SP-030148 | 22.101 | 116 | -   | Rel-5 | F   | CR to 22.101 Rel 5 on SIM support | 5.8.0    | 5.9.0    | S1-030256 |
| SP-030148 | 22.101 | 117 | -   | Rel-6 | A   | CR to 22.101 Rel 6 on SIM support | 6.2.0    | 6.3.0    | S1-030257 |

**3GPP TSG SA WG1**  
**San Francisco, 20-24 January 2003**

**Tdoc S1-030257**

CR-Form-v7

## CHANGE REQUEST

⌘ **22.101**      **CR 117**      ⌘ 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

|                        |  |                 |   |
|------------------------|--|-----------------|---|
| <b>Title:</b>          | ⌘ CR to 22.101 on SIM support  |                 |   |
| <b>Source:</b>         | ⌘ Nokia  |                 |   |
| <b>Work item code:</b> | ⌘ TEI  | <b>Date:</b>    | ⌘ 13/01/2003                              |
| <b>Category:</b>       | ⌘ <b>A</b>   | <b>Release:</b> | ⌘ Rel-6                                   |
|                        | Use <u>one</u> of the following categories:  |                 | Use <u>one</u> of the following releases: |
|                        | <b>F</b> (correction)  | <b>2</b>        | (GSM Phase 2)                             |
|                        | <b>A</b> (corresponds to a correction in an earlier release)                                   | <b>R96</b>      | (Release 1996)                            |
|                        | <b>B</b> (addition of feature),  | <b>R97</b>      | (Release 1997)                            |
|                        | <b>C</b> (functional modification of feature)  | <b>R98</b>      | (Release 1998)                            |
|                        | <b>D</b> (editorial modification)  | <b>R99</b>      | (Release 1999)                            |
|                        | Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> . |                 | <b>Rel-4</b> (Release 4)                  |
|                        |  |                 | <b>Rel-5</b> (Release 5)                  |
|                        |  |                 | <b>Rel-6</b> (Release 6)                  |

|                                      |   |
|--------------------------------------|---|
| <b>Reason for change:</b>            | ⌘ Clarification on SIM support in Release 5.  |
| <b>Summary of change:</b>            | ⌘ CR corrects SIM releases and clarifies the optional usage SIM releases. Added a note that SIM in general refers to Rel 4. |
| <b>Consequences if not approved:</b> | ⌘ Unclear specifications, and possible mis-interpretation of the specifications   |

|                              |   |                     |   |  |   |  |   |  |   |                           |   |
|------------------------------|---|---------------------|---|--|---|--|---|--|---|---------------------------|---|
| <b>Clauses affected:</b>     | ⌘ 14  |                     |   |  |   |  |   |  |   |                           |   |
| <b>Other specs Affected:</b> | <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table> | Y                   | N |  | X |  | X |  | X | Other core specifications | ⌘ |
| Y                            | N   |                     |   |  |   |  |   |  |   |                           |   |
|                              | X   |                     |   |  |   |  |   |  |   |                           |   |
|                              | X   |                     |   |  |   |  |   |  |   |                           |   |
|                              | X   |                     |   |  |   |  |   |  |   |                           |   |
|                              |   | Test specifications |   |  |   |  |   |  |   |                           |   |
|                              |   | O&M Specifications  |   |  |   |  |   |  |   |                           |   |
| <b>Other comments:</b>       | ⌘ This was requested by SA plenary  |                     |   |  |   |  |   |  |   |                           |   |

**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.

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## 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

### 2.1 Normative references

- [1] 3GPP TS 22.105 “Services and Service Capabilities”
- [2] 3GPP TS 22.121: "Virtual Home Environment (VHE), Stage 1"
- [3] 3GPP TS 22.038: "SIM application toolkit, stage 1"
- [4] 3GPP TS 22.001: " Principles of Circuit telecommunication services supported by a Public Land Mobile Network (PLMN)".
- [5] 3GPP TS 22.004: General on supplementary services"
- [6] 3GPP TS 22.030: "Man-Machine Interface (MMI) of the User Equipment (UE)"
- [7] 3GPP TS 22.066: "Support of Mobile Number Portability (MNP); Service description; Stage 1"
- [8] 3GPP TS 22.079: " Support of Optimal Routing; Stage 1"
- [9] 3GPP TS 22.129: "Handover Requirements between UTRAN and GERAN or other Radio Systems"
- [10] 3GPP TS 33.102: "Security Architecture"
- [11] 3GPP TS 22.011: "Service Accessibility"
- [12] 3GPP TS 22.016: "International mobile Station Equipment Identities (IMEI)"
- [13] 3GPP TS 24.008: " Mobile Radio Interface Layer 3 Specification"
- [14] 3GPP TS 22.003: "Circuit Teleservices supported by a Public Land Mobile Network (PLMN)"
- [15] 3GPP TS 21.133: "Security Threats and Requirements"
- [16] 3GPP TS 33.120: "Security Principles"
- [17] 3GPP TS 22.042: "Network Identity and Time Zone, Service Description, Stage 1"
- [18] 3GPP TS 42.009: " Security Aspects"
- [19] 3GPP TS 31.102: "USIM Application Characteristics"
- [20] 3GPP TS 23.221 “Architectural Requirements”
- [21] 3GPP TS 22.002: “Circuit Bearer Services (BS) supported by a Public Land Mobile Network (PLMN)”
- [22] 3GPP TS 22.060: “General Packet Radio Service (GPRS)”

- [23] 3GPP TS 29.002: "Mobile Application Part (MAP) specification "
  - [24] 3GPP TR 23.972: "Circuit Switched Multimedia Telephony".
  - [25] 3GPP TS 22.140: "Multimedia messaging service; Stage 1".
  - [26] 3GPP TS 22.226: "Global Text Telephony, Stage 1."
  - [27] 3GPP TS 22.228: "IP multimedia (IM) CN subsystem, stage 1"
  - [28] RFC 3261: "SIP: Session Initiation Protocol"
  - [29] 3GPP TR 21.905: " Vocabulary for 3GPP Specifications"
  - [30] 3GPP TS 26.233: "Packet Switched Streaming Service (PSS) ; General Description"
  - [31] 3GPP TS 26.234: "Packet Switched Streaming Service (PSS) ; Protocols and Codecs"
  - [32] 3GPP TR 22.934: "Feasibility study on 3GPP system to Wireless LAN interworking"
  - [33] RFC 2486: "The Network Access Identifier"
- [\[xx34\]](#) [TS 51.011: "Specification of the Subscriber Identity Module - Mobile Equipment \(SIM-ME\) interface", Release 4](#)

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## 14 Types of features of UEs

3GPP specifications should support a wide variety of user equipment, i.e. setting any limitations on terminals should be avoided as much as possible. For example user equipment like hand-portable phones, personal digital assistants and laptop computers can clearly be seen as likely terminals.

In order not to limit the possible types of user equipment they are not standardised. The UE types could be categorised by their service capabilities rather than by their physical characteristics. Typical examples are speech only UE, narrowband data UE, wideband data UE, data and speech UE, etc..

In order to enhance functionality split and modularity inside the user equipment the interfaces of UE should be identified. Interfaces like UICC-interface, PCMCIA-interface and other PC-interfaces, including software interfaces, should be covered by references to the applicable interface standards.

UEs have to be capable of supporting a wide variety of teleservices and applications provided in PLMN environment. Limitations may exist on UEs capability to support all possible teleservices and information types (speech, narrowband data, wideband data, video, etc.) and therefore functionality to indicate capabilities of a UE shall be specified.

The basic mandatory UE requirements are:

- Support for USIM. Optional support of GSM phase 2-~~and~~ 2+, [3GPP Release 99 and Release 4](#) SIM cards [\[xx\]](#). Phase 1, 5V SIM cards shall not be supported. [Support for the SIM is optional for the UE, however, if it is supported, the mandatory requirements for SIM shall be supported in the UE;](#)

[Note: There is no Release 5 specification for the SIM, and therefore references to "SIM" apply to earlier releases.](#)

- Home environment and serving network registration and deregistration;
- Location update;
- Originating or receiving a connection oriented or a connectionless service;
- An unalterable equipment identification; IMEI, see 3GPP TS 22.016 [12];
- Basic identification of the terminal capabilities related to services such as; the support for software downloading, application execution environment/interface, MExE terminal class, supported bearer services.

- Terminals capable for emergency calls shall support emergency call without a SIM/USIM.
- Support for the execution of algorithms required for encryption, for CS and PS services. Support for non encrypted mode is required;
- Support for the method of handling automatic calling repeat attempt restrictions as specified in 3GPP TS 22.001 [4];
- At least one capability type shall be standardised for mobile terminals supporting the GERAN and UTRAN radio interfaces.
- Under emergency situations, it may be desirable for the operator to prevent UE users from making access attempts (including emergency call attempts) or responding to pages in specified areas of a network, see 3GPP TS 22.011 [11];
- Ciphering Indicator for terminals with a suitable display;

The ciphering indicator feature allows the UE to detect that ciphering is not switched on and to indicate this to the user. The ciphering indicator feature may be disabled by the home network operator setting data in the SIM/USIM. If this feature is not disabled by the SIM/USIM, then whenever a connection is in place, which is, or becomes unenciphered, an indication shall be given to the user. Ciphering itself is unaffected by this feature, and the user can choose how to proceed;

- Support for PLMN selection.
- Support for handling of interactions between toolkits concerning the access to UE MMI input/output capabilities;

Whenever an application (e.g. a SAT/MExE/WAP application) requires the access to the UE MMI input/output capabilities (e.g. display, keyboard,...), the UE shall grant this access subject to the capabilities of the UE. This shall not cause the termination of any other applications (e.g. WAP browser or MExE/SAT application) which were previously using these UE resources. The UE shall give the user the ability to accept or reject the new application. In the case that the application request is rejected, the access to the UE MMI input/output capabilities is returned to the applications which were previously using these UE resources. If the user decides to continue with the new application, then when this new application is terminated, the access to the UE MMI input/output capabilities shall be returned to the UE to be re-allocated to applications (e.g. the preceding application which was interrupted). Subject to the capabilities of the UE, the user shall have the ability to switch the MMI input/output capabilities between applications.

Note: Rejecting a request to access the UE MMI input/output capabilities by an application does not necessarily mean that it is terminated, but only that the access to the UE MMI input/output capabilities are not granted to this application. Handling of rejection (termination, put on hold,...) is the responsibility of the application.

Annex A describes a number of features which may optionally be supported by the UE.