### TSGS#11(01) 0053

Technical Specification Group Services and System Aspects Meeting #11, Palm Springs, CA, USA, 19-22 March 2001

Source: SA1

Title: CRs to 22.101 on handling of interactions between applications

requiring the access to UE resources

**Document for:** Approval

Agenda Item: 7.1.3

| Spec   | CR  | Re | Phas  | Subject  | Cat | Versio       | Versio |
|--------|-----|----|-------|--|-----|--------------|--------|
|        |     | V  | е     |  |     | n-<br>Curren | n-New  |
|        |     |    |       |  |     | t            |        |
| 22.101 | 062 |    | Rel-4 | Handling of interactions between applications requiring the access to UE resources | Α   | 4.2.0        | 4.3.0  |
| 22.101 | 063 |    | Rel-5 | Handling of interactions between applications requiring the access to UE resources | Α   | 5.1.0        | 5.2.0  |

# TSG-SA WG 1 (Services) meeting #11 Cape Town, South Africa, 6<sup>th</sup> to 9<sup>th</sup> February 2001

### TSG S1 (00) 0071 Agenda Item:

|   |           |            |                 |  |         |            |      |                |          |         | CR-Form-v3 |
|---|-----------|------------|-----------------|--|---------|------------|------|----------------|----------|---------|------------|
| CHANGE REQUEST  |           |            |                 |  |         |            |      |                |          |         |            |
| *   | TS 2      | 2 10′      | CR              | 062  | ₩ re    | V <b>-</b> | ж    | Current vers   | sion:    | 4.2.0   | ¥          |
| For <b>HELP</b> on using this form, see bottom of this page or look at the pop-up text over the <b>%</b> symbols. |           |            |                 |  |         |            |      |                |          |         |            |
| Proposed change affects:    (U)SIM ME/UE X Radio Access Network Core Network ■                                    |           |            |                 |  |         |            |      |                |          |         |            |
| Title:  | 3         | € Har      | ndling of inter | actions betwe                                    | en appl | cations    | requ | uiring the acc | ess to l | JE reso | urces      |
| Source:   | 9         | € SA1      | l               |  |         |            |      |                |          |         |            |
| Work ite  | m code: 9 | € Ser      | vice Clean up   | R99  |         |            |      | Date: ₩        | 06/0     | 2/01    |            |
| Category  | <i>r:</i> | <b>€ A</b> |                 |  |         |            |      | Release: ೫     | Rel-4    | 4       |            |
| Category:   # A    Cone of the following categories:   Use one of the following releases:                         |           |            |                 |  |         |            |      |                |          |         |            |
| _   |           |            |                 |  |         |            |      |                |          |         |            |
| Consequence not appre   |           | #          |                 |  |         |            |      |                |          |         |            |
| Clauses   | affected: | ж          | 13              |  |         |            |      |                |          |         |            |
| Other sp<br>affected:   |           | *          | Test spe        | ore specificati<br>ecifications<br>pecifications | ons     | *          |      |                |          |         |            |
| Other co  | mments:   | **         |                 |  |         |            |      |                |          |         |            |

## 13 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 GSM phase 2 and 2+ SIM cards, phase 1 5V SIM cards shall not be supported;
- 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 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 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 TS 22.011 [11];
- Ciphering Indicator for terminals with a suitable display;

The ciphering indicator feature allows the ME 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, 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 ME.

# TSG-SA WG 1 (Services) meeting #11 Cape Town, South Africa, 6<sup>th</sup> to 9<sup>th</sup> February 2001

### TSG S1 (00) 0072 Agenda Item:

|   |        |       |               |   |        |       |       |      |               |       |            | CR-Form-v3 |
|---|--------|-------|---------------|---|--------|-------|-------|------|---------------|-------|------------|------------|
| CHANGE REQUEST  |        |       |               |   |        |       |       |      |               |       |            |            |
| ₩ <mark>T</mark>  | S 22   | 101   | CR            | 063   | ж      | rev   | -     | ¥    | Current vers  | sion: | 5.1.0      | ¥          |
| For <u><b>HELP</b></u> on using this form, see bottom of this page or look at the pop-up text over the <b>%</b> symbols.  |        |       |               |   |        |       |       |      |               |       |            |            |
| Proposed change affects:    # (U)SIM ME/UE   Radio Access Network Core Network   Core Network   Core Network    Core Network    Core Network    Core Network   Core Network    Core Network   Cor |        |       |               |   |        |       |       |      |               |       |            |            |
| Title:  | ж      | Hand  | ling of inter | actions betw                                    | een ap | plica | tions | requ | iring the acc | ess t | o UE resou | urces      |
| Source:   | ¥      | SA1   |               |   |        |       |       |      |               |       |            |            |
| Work item co  | ode: ೫ | Servi | ce Clean up   | R99   |        |       |       |      | Date: ₩       | 06    | 6/02/01    |            |
| Category:   | ж      | Α     |               |   |        |       |       |      | Release: #    | Re    | el-5       |            |
| Category:   # A  Release:  Rel-5  Use one of the following categories:  F (essential 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.  Reason for change:  This CR has been approved for R99 at SA#9. The same correction must be done for R5.  Summary of change:  Currently WAP sessions and SIM toolkit services are not programmed to run simultaneously in a UE. In other words no rules have been defined to resolve contentions for the access to the handset resources such as display and keypad. The objective of this proposal is to define a user controlled mechanism to grant access to the UE resources to the applications running simultaneously. For R00, further work is expected to enrich the proposed procedure. This will be done in accordance with T2 work on Terminal Local Model.   |        |       |               |   |        |       |       |      |               |       |            |            |
| Consequence not approved  |        | ж     |               |   |        |       |       |      |               |       |            |            |
| Clauses affect  | cted:  | ж     | 14            |   |        |       |       |      |               |       |            |            |
| Other specs affected:   |        | *     | Test spe      | ore specificat<br>ecifications<br>pecifications | tions  | ж     |       |      |               |       |            |            |
| Other commi   | ents:  | ж     |               |   |        |       |       |      |               |       |            |            |

## 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:

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