RP-030326

TSG RAN Meeting #20 Hämeenlinna, Finland, 3 - 6 June, 2003

Title

Source Agenda Item

CRs (Rel-4 and Rel-5 Category A) to TS 25.413, 25.419, 25.423, 25.433 and 25.453 (Rel-5 and Rel-6 Category A) on Correction of Failure message used for logical errors TSG RAN WG3 7.3.6

| RAN3 Tdoc | Spec | curr. Vers. | new Vers. | REL | CR | Rev | Cat | Title | Work item |
|-----------|--------|----------------|-----------|-------|-----|-----|-----|---|-----------|
| R3-030869 | 25.413 | 4.8.0 | 4.9.0 | REL-4 | 571 | 1 | F | Correction of Failure message used for logical errors | TEI4 |
| R3-030870 | 25.413 | 5.4.0 | 5.5.0 | REL-5 | 572 | 1 | Α | Correction of Failure message used for logical errors | TEI4 |
| R3-030888 | 25.419 | 4.7.0 | 4.8.0 | REL-4 | 116 | - | F | Correction of Failure message used for logical errors | TEI4 |
| R3-030889 | 25.419 | 5.3.0 | 5.4.0 | REL-5 | 117 | - | А | Correction of Failure message used for logical errors | TEI4 |
| R3-030890 | 25.423 | 4.8.0 | 4.9.0 | REL-4 | 841 | - | F | Correction of Failure message used for logical errors | TEI4 |
| R3-030891 | 25.423 | 5.5.0 | 5.6.0 | REL-5 | 842 | - | Α | Correction of Failure message used for logical errors | TEI4 |
| R3-030892 | 25.433 | 4.8.0 | 4.9.0 | REL-4 | 866 | - | F | Correction of Failure message used for logical errors | TEI4 |
| R3-030893 | 25.433 | 5.4.0 | 5.5.0 | REL-5 | 867 | - | Α | Correction of Failure message used for logical errors | TEI4 |
| R3-030894 | 25.453 | 5.5.0 | 5.6.0 | REL-5 | 049 | - | F | Correction of Failure message used for logical errors | TEI4 |
| R3-030895 | 25.453 | 6.0.0 | 6.1.0 | REL-6 | 050 | - | Α | Correction of Failure message used for logical errors | TEI4 |

3GPP TSG-RAN3 Meeting #36 Paris, France, 17th-23th February 2003

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| [#] 2 | <mark>5.413</mark> CR | 571 x rev | 1 ೫ | Current version | 4.8.0 [*] |
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| Proposed change aff | ects: UICC apps | ¥ ME | Radio A | ccess Network | Core Network X |
| Title: # C | Correction of failure | message used for | logical err | rors | |
| Source: % F | RAN WG3 | | | | |
| Work item code: % T | El4 | | | Date: ೫ <mark>1</mark> | 9/05/2003 |
| Category: % F Us De be | cone of the following F (correction) A (corresponds to B (addition of feat C (functional mod D (editorial modifietailed explanations of found in 3GPP TR 2 RANAP uses 'fail nowhere defined, unsuccessful outcome | g categories: b a correction in an e ture), ification of feature) cation) of the above categori 21.900. ure message' for rep Different interpreta ome message of class | es can orting logic ions can le i 1/3 proced | Release: % R Use <u>one</u> of the 2 (G R96) R96 (Re R97 (Re R98 (Re R99) (Re Rel-4 (Re Rel-5 (Re Rel-5 (Re Rel-6 (Re cal errors in sectio ad to use either En lures to report thes | tel-4 following releases: SM Phase 2) blease 1996) blease 1997) blease 1998) blease 1999) blease 4) blease 5) blease 6) n 10.4 whereas it is rror Indication or the se errors. |
| Summary of change: | The Failure me as for how to re class 1 procedu Impact assessing release): This CR has is (same release) This CR has an The impact car security, location | removed. Section re caused by log rsion of the spect evious version of a protocol point of use it only affect ignment functior | on 10.4 is clarified gical errors in both <u>effication (same</u> the specification f view. ts the relocation, | | |
| Consequences if not approved: | # Inter-working p | roblems due to log | ical errors | incorrectly repor | ted by different |

| Clauses affected: | ж | 1 | 0.4, | 10.5 | | |
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| | | Υ | Ν | | | |
| Other specs | ж | Χ | | Other core specifications | ж | TS 25.413 REL-5 CR572rev1 |
| - | | | | | | TS 25.419 REL-4 CR116 |
| | | | | | | TS 25.419 REL-5 CR117 |
| | | | | | | TS 25.423 REL-4 CR841 |
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| | | | | | | TS 25.433 REL-5 CR867 |
| | | | | | | TS 25.453 REL-5 CR049 |
| | | | | | | TS 25.453 REL-6 CR050 |
| affected: | | | Χ | Test specifications | | |
| | | | Χ | O&M Specifications | | |
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| Other comments: | ж | | | | | |

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality information of the IEs/IE groups containing the erroneous values.

12

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a <u>failure</u>-message to <u>report this unsuccessful outcome</u>, th<u>ise failure</u> message shall be sent with an appropriate cause value. Typical cause values are:

- Semantic Error.
- Message not compatible with receiver state.

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a failure message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure Code* IE and the *Triggering Message* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure Code* IE and the *Triggering Message* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Class 3:

Where the logical error occurs in a request message of a class 3 procedure, and the procedure has a <u>failure</u> message to <u>report this unsuccessful outcome</u>, th<u>ise failure</u> message shall be sent with an appropriate cause value. Typical cause values are:

- Semantic Error.
- Message not compatible with receiver state.

Where the logical error is contained in a request message of a class 3 procedure, and the procedure does not have a failure message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure Code* IE and the *Triggering Message* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 3 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclauses of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.

- In case a response message, failure message or Error Indication message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

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- If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality "ignore and notify" have earlier occurred within the same procedure.

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| * 2 | 25.413 CR 572 % rev 1 [%] Current version: 5.4.0 [%] |
| For <u>HELP</u> on usin | ing this form, see bottom of this page or look at the pop-up text over the \Re symbols. |
| Proposed change aff | Fects: UICC apps # ME Radio Access Network X Core Network X |
| Title: ೫ (| Correction of failure message used for logical errors |
| Source: ೫ I | RAN WG3 |
| Work item code: # 📑 | TEI4 Date: ¥ 19/05/2003 |
| Category: # U | A Release: % Rel-5 ise one of the following categories: Use one of the following releases: F (correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) B (addition of feature), R97 (Release 1997) C (functional modification of feature) R98 (Release 1998) D (editorial modification) R99 (Release 1999) etailed explanations of the above categories can Rel-4 (Release 4) e found in 3GPP TR 21.900. Rel-5 (Release 5) Rel-6 (Release 6) Rel-6 |
| Summary of change: | The Failure message used in section 10.4 is removed. Section 10.4 is clarified as for how to report the unsuccessful outcome caused by logical errors in both class 1 procedures and class 3 procedures. |
| | Impact assessment towards the previous version of the specification (same release): |
| | This CR has isolated impact towards the previous version of the specification (same release). |
| | This CR has an impact under functional and protocol point of view. |
| | security, location related data, and RAB Assignment functions. |
| Consequences if not approved: | Inter-working problems due to logical errors incorrectly reported by different vendors. |

| Clauses affected: | ж | 1 | 0.4, | 10.5 | | |
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| Other specs | ж | Х | | Other core specifications | ж | TS 25.413 REL-4 CR571rev1 |
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| affected: | | | Χ | Test specifications | | |
| | | | Х | O&M Specifications | | |
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12

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a <u>failure</u>-message to <u>report this unsuccessful outcome</u>, th<u>ise failure</u> message shall be sent with an appropriate cause value. Typical cause values are:

- Semantic Error.
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Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a failure message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure Code* IE and the *Triggering Message* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure Code* IE and the *Triggering Message* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Class 3:

Where the logical error occurs in a request message of a class 3 procedure, and the procedure has a <u>failure</u> message to <u>report this unsuccessful outcome</u>, th<u>ise failure</u> message shall be sent with an appropriate cause value. Typical cause values are:

- Semantic Error.
- Message not compatible with receiver state.

Where the logical error is contained in a request message of a class 3 procedure, and the procedure does not have a failure message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure Code* IE and the *Triggering Message* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 3 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

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The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclauses of clause 10.

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| Proposed change a | ME Radio Access Network X Core Network X | | | | | | | | |
| Title: ೫ | Correction of failure message used for logical errors | | | | | | | | |
| Source: ೫ | RAN WG3 | | | | | | | | |
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| Category: % | F Release: % Rel-4 Use one of the following categories: Use one of the following releases: F (correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) B (addition of feature), R97 (Release 1997) C (functional modification of feature) R98 (Release 1998) D (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can Rel-4 (Release 4) be found in 3GPP TR 21.900. Rel-5 (Release 5) Rel-6 (Release 6) Rel-6 (Release 6) | | | | | | | | |
| Summary of chang | e: # The Failure message used in section 10.4 is removed. Section 10.4 is clarified as for how to report the unsuccessful outcome caused by logical errors in both class 1 procedures and class 3 procedures. | | | | | | | | |
| Impact assessment towards the previous version of the specification release): This CR has isolated impact towards the previous version of the specification (same release). This CR has an impact under functional and protocol point of view. The impact can be considered isolated because it only affects the resecurity, location related data, and RAB Assignment functions. | | | | | | | | | |
| Consequences if not approved: | Inter-working problems due to logical errors incorrectly reported by different vendors. | | | | | | | | |

| Clauses affected: | ж | 1(|).4, | 10.5 | | |
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| | Г | Υ | Ν | | | |
| Other specs | ж | Χ | | Other core specifications | ж | 25.413 REL-4 CR571r1 |
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| For <mark>HELP</mark> on us | sing this form, see bottom of this page or look at the pop-up text over the $ m lpha$ symbols. |
| Proposed change a | affects: UICC apps ME Radio Access Network X Core Network X |
| Title: # | Correction of failure message used for logical errors |
| Source: ೫ | RAN WG3 |
| Work item code: # | TEI4 Date: # 23/05/2003 |
| Category: % | A Release: % Rel-5 Use one of the following categories: Use one of the following releases: F (correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) B (addition of feature), R97 (Release 1997) C (functional modification of feature) R98 (Release 1998) D (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can be found in 3GPP TR 21.900. Rel-4 (Release 5) Rel-6 (Release 6) Rel-6 (Release 6) |
| Summary of chang | The Failure message used in section 10.4 is removed. Section 10.4 is clarified as for how to report the unsuccessful outcome caused by logical errors in both class 1 procedures and class 3 procedures. |
| | Impact assessment towards the previous version of the specification (same release): This CR has isolated impact towards the previous version of the specification (same release). This CR has an impact under functional and protocol point of view. The impact can be considered isolated because it only affects the relocation, security, location related data, and RAB Assignment functions. |
| Consequences if not approved: | Inter-working problems due to logical errors incorrectly reported by different vendors. |

| Clauses affected: | ж | 1(|).4, | 10.5 | | |
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| Other specs | ж | Χ | | Other core specifications | ж | 25.413 REL-4 CR571r1 |
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| affected: | | | Х | Test specifications | | |
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3GPP TSG-RAN3 Meeting #36 Paris, France, 17th-23th May 2003

| | CR-Form-v7 |
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| ^ж 2 | 5.423 CR 841 # rev - # Current version: 4.8.0 # |
| For <u>HELP</u> on using | g this form, see bottom of this page or look at the pop-up text over the % symbols. |
| Proposed change affe | ects: UICC apps # ME Radio Access Network X Core Network X |
| Title: % C | Correction of failure message used for logical errors |
| Source: % R | AN WG3 |
| Work item code: # T | El4 Date: # 19/05/2003 |
| Category: # F Usi Det be | Release: % Rel-4 e one of the following categories: Use one of the following releases: F (correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) B (addition of feature), R97 (Release 1997) C (functional modification of feature) R98 (Release 1998) D (editorial modification) R99 (Release 1999) etailed explanations of the above categories can Rel-4 (Release 4) found in 3GPP TR 21.900. Rel-5 (Release 5) Rel-6 (Release 6) Rel-6 (Release 6) |
| Summary of change:8 | The Failure message used in section 10.4 is removed. Section 10.4 is clarified as for how to report the unsuccessful outcome caused by logical errors in both class 1 procedures and class 3 procedures. Impact assessment towards the previous version of the specification (same release): This CR has isolated impact towards the previous version of the specification (same release). This CR has an impact under functional and protocol point of view. The impact can be considered isolated because it only affects the class 1 functions. |
| Consequences if and a not approved: | Inter-working problems due to logical errors incorrectly reported by different vendors. |

| Clauses affected: | ж | 1(|).4, | 10.5 | | |
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| Other specs | ж | Χ | | Other core specifications | ж | 25.413 REL-4 CR571r1 |
| | | | | | | 25.413 REL-5 CR572r1 |
| | | | | | | 25.419 REL-4 CR116 |
| | | | | | | 25.419 REL-5 CR117 |
| | | | | | | 25.423 REL-5 CR842 |
| | | | | | | 25.433 REL-4 CR866 |
| | | | | | | 25.433 REL-5 CR867 |
| | | | | | | 25.453 REL-5 CR049 |
| | | | | | | 25.453 REL-6 CR050 |
| affected: | | | Χ | Test specifications | | |
| | | | Χ | O&M Specifications | | |
| | | | | | | |
| Other comments: | ж | | | | | |

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

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality information of the IEs/IE groups containing the erroneous values.

12

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a <u>failure</u>-message<u>to</u> report this unsuccessful outcome, this<u>e failure</u> message shall be sent with an appropriate cause value. Typical cause values are:

Protocol Causes:

- 1. Semantic Error;
- 2. Message not Compatible with Receiver State.

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a failure message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclauses of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.
- In case a response message, failure message or ERROR INDICATION message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.
- If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality "ignore and notify" have earlier occurred within the same procedure.

12

3GPP TSG-RAN3 Meeting #36 Paris, France, 19th-23th May 2003

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| Proposed change | affec | <i>ts:</i> L | JICC ap | ₽ps ₩ | ME | Rac | dio Ad | ccess Netwo | rk X | Core Ne | etwork X | |
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| Source: ೫ | RA | <mark>N WG</mark> | 3 | | | | | | | | | |
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| Reason for change | <i>:</i> т | nowhen | re define essful of | allure mess ed. Differe atcome mes | sage for rep nt interpreta ssage of clas | tions can be still a s | an lea | at errors in sec ad to use eithe ures to report | these | or Indicatio errors. | n or the | |
| Summary of chang | уе: Ж | The Failure message used in section 10.4 is removed. S as for how to report the unsuccessful outcome caused by class 1 procedures and class 3 procedures. | | | | | | | | ection 10.4 is clarified logical errors in both | | |
| | | <u>lmpa</u> relea | <u>ct asse: se):</u> | ssment to | wards the p | reviou | <u>is vei</u> | rsion of the s | pecifi | <u>cation (sa</u> | <u>me</u> | |
| | | This (sam | CR has e relea | isolated i se). | mpact towa | ards the | e pre | vious versio | n of tl | he specific | cation | |
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| | | The i funct | mpact o ions. | can be cor | nsidered is | olated I | beca | use it only af | fects | the class | 1 | |
| Consequences if not approved: | ж | Inter- vend | working ors. | problems | s due to log | ical er | rors i | incorrectly re | porte | d by diffe | rent | |

| Clauses affected: | ж | 1(|).4, | 10.5 | | |
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| | Γ | Υ | Ν | | | |
| Other specs | ж | Χ | | Other core specifications | ж | 25.413 REL-4 CR571r1 |
| | | | | | | 25.413 REL-5 CR572r1 |
| | | | | | | 25.419 REL-4 CR116 |
| | | | | | | 25.419 REL-5 CR117 |
| | | | | | | 25.423 REL-4 CR841 |
| | | | | | | 25.433 REL-4 CR866 |
| | | | | | | 25.433 REL-5 CR867 |
| | | | | | | 25.453 REL-5 CR049 |
| | | | | | | 25.453 REL-6 CR050 |
| affected: | | | Χ | Test specifications | | |
| | | | Χ | O&M Specifications | | |
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| Other comments: | ж | | | | | |

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- 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.

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality information of the IEs/IE groups containing the erroneous values.

12

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a <u>failure</u>-message<u>to</u> report this unsuccessful outcome, this<u>e failure</u> message shall be sent with an appropriate cause value. Typical cause values are:

Protocol Causes:

- 1. Semantic Error;
- 2. Message not Compatible with Receiver State.

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a failure message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclauses of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.
- In case a response message, failure message or ERROR INDICATION message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality "ignore and notify" have earlier occurred within the same procedure.

12

3GPP TSG-RAN3 Meeting #36 Paris, France, 19th-23th May 2003

| | CR-Form-v7 |
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| ¥ 2 | 25.433 CR 866 % rev - % Current version: 4.8.0 % |
| For <u>HELP</u> on usin | Ing this form, see bottom of this page or look at the pop-up text over the \Re symbols. |
| Proposed change af | Fects: UICC apps# ME Radio Access Network X Core Network X |
| Title: # 0 | Correction of failure message used for logical errors |
| Source: ೫ I | RAN WG3 |
| Work item code: # | TEI4 Date: ¥ 19/05/2003 |
| Category: # U | Release: % Rel-4 se one of the following categories: <i>F</i> (correction) <i>Q</i> (GSM Phase 2) <i>A</i> (corresponds to a correction in an earlier release) <i>R</i>96 (Release 1996) <i>B</i> (addition of feature), <i>R</i>97 (Release 1997) <i>C</i> (functional modification of feature) <i>R</i>98 (Release 1998) <i>D</i> (editorial modification) <i>R</i>99 (Release 1999) etailed explanations of the above categories can <i>Rel-4</i> (Release 4) a found in 3GPP <u>TR 21.900</u>. <i>R</i>97 (Release 5) <i>Rel-6</i> (Release 6) NBAP uses 'failure message' for reporting logical errors in section 10.4 whereas it is nowhere defined. Different interpretations can lead to use either Error Indication or the unsuccessful outcome message of class 1/3 procedures to report these errors. |
| Summary of change: | % The Failure message used in section 10.4 is removed. Section 10.4 is clarified as for how to report the unsuccessful outcome caused by logical errors in both class 1 procedures and class 3 procedures. Impact assessment towards the previous version of the specification (same release): This CR has isolated impact towards the provious version of the specification. |
| | (same release). This CR has an impact under functional and protocol point of view. The impact can be considered isolated because it only affects the class 1 functions. |
| Consequences if not approved: | Inter-working problems due to logical errors incorrectly reported by different vendors. |

| Clauses affected: | ж | 1(|).4, | 10.5 | | |
|-------------------|---|----|------|---------------------------|---|----------------------|
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| Other specs | ж | Χ | | Other core specifications | ж | 25.413 REL-4 CR571r1 |
| | | | | | | 25.413 REL-5 CR572r1 |
| | | | | | | 25.419 REL-4 CR116 |
| | | | | | | 25.419 REL-5 CR117 |
| | | | | | | 25.423 REL-4 CR841 |
| | | | | | | 25.423 REL-5 CR842 |
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| affected: | ſ | | Χ | Test specifications | | |
| | | | Χ | O&M Specifications | | |
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| Other comments: | ж | | | | | |

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Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality of the IEs/IE groups containing the erroneous values.

12

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a <u>failure message to</u> report this unsuccessful outcome, thise failure message shall be sent with an appropriate cause value.

Typical cause values are:

- Protocol Causes:
 - 1. Semantic Error
 - 2. Message not compatible with receiver state

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a failure message to report this unsuccessful outcome, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclause of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.
- In case a response message, failure message or ERROR INDICATION message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.
 - If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality "ignore and notify" have earlier occurred within the same procedure.

12

3GPP TSG-RAN3 Meeting #36 Paris, France, 19th-23th May 2003

| [#] 2 | 25.433 CR 867 # rev - # Current version: 5.4.0 # | | | | | | | | | | |
|----------------------------------|--|---|--|--|--|--|--|--|--|--|--|
| For <u>HELP</u> on using | g this form, see bottom of this page or look at the pop-up text over the \Re symbols. | | | | | | | | | | |
| Proposed change affe | ects: UICC apps ME Radio Access Network X Core Network | K | | | | | | | | | |
| Title: # C | Correction of failure message used for logical errors | | | | | | | | | | |
| Source: ೫ F | RAN WG3 | | | | | | | | | | |
| Work item code: ೫ <mark>T</mark> | TEI4 Date: ೫ 19/05/2003 | | | | | | | | | | |
| Category: % A Us De be | Release: % Rel-5 se one of the following categories: Use one of the following releases: F (correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) B (addition of feature), R97 (Release 1997) C (functional modification of feature) R98 (Release 1998) D (editorial modification) R99 (Release 1999) etailed explanations of the above categories can Rel-4 (Release 4) e found in 3GPP TR 21.900. Rel-5 (Release 5) Rel-6 (Release 6) Rel-6 (Release 6) | | | | | | | | | | |
| Summary of change: | Where defined. Enforcement interpretations can read to use other Enfor interaction of the unsuccessful outcome message of class 1/3 procedures to report these errors. The Failure message used in section 10.4 is removed. Section 10.4 is clarified as for how to report the unsuccessful outcome caused by logical errors in both class 1 procedures and class 3 procedures. Impact assessment towards the previous version of the specification (same release): This CR has isolated impact towards the previous version of the specification (same release). This CR has an impact under functional and protocol point of view. The impact can be considered isolated because it only affects the class 1 functions. | | | | | | | | | | |
| Consequences if not approved: | Inter-working problems due to logical errors incorrectly reported by different vendors. | | | | | | | | | | |

| Clauses affected: | ж | 1(|).4, | 10.5 | | |
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| | | | | | | |
| | Γ | Υ | Ν | | | |
| Other specs | ж | Χ | | Other core specifications | ж | 25.413 REL-4 CR571r1 |
| | | | | | | 25.413 REL-5 CR5/2r1 |
| | | | | | | 25.419 REL-4 CR116 |
| | | | | | | 25.419 REL-5 CR117 |
| | | | | | | 25.423 REL-4 CR841 |
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| | | | | | | 25.433 REL-4 CR866 |
| | | | | | | 25.453 REL-5 CR049 |
| | | | | | | 25.453 REL-6 CR050 |
| affected: | | | Χ | Test specifications | | |
| | | | Χ | O&M Specifications | | |
| | | | | - | | |
| Other comments: | ж | | | | | |

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- 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.

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality information of the IEs/IE groups containing the erroneous values.

12

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a <u>failure</u>-message<u>to</u> report this unsuccessful outcome, this<u>e failure</u> message shall be sent with an appropriate cause value. Typical cause values are:

Protocol Causes:

- 1. Semantic Error;
- 2. Message not Compatible with Receiver State.

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a failure message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclauses of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.
- In case a response message, failure message or ERROR INDICATION message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality "ignore and notify" have earlier occurred within the same procedure.

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3GPP TSG-RAN3 Meeting #36 Paris, France, 17th-23th February 2003

| | CR-Form-v7 |
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| [#] 2 | 5.453 CR 049 * rev - * Current version: 5.5.0 * |
| For <u>HELP</u> on using | this form, see bottom of this page or look at the pop-up text over the \Re symbols. |
| Proposed change affe | ects: UICC apps # ME Radio Access Network X Core Network |
| Title: % C | orrection of failure message used for logical errors |
| Source: ^{# R} | AN WG3 |
| Work item code:೫ <mark>─</mark> | EI5 Date: # 23/05/2003 |
| Category: % F Us De be | Release: % Rel-5e one of the following categories:Use one of the following releases:F (correction)2(GSM Phase 2)A (corresponds to a correction in an earlier release)R96(Release 1996)B (addition of feature),R97(Release 1997)C (functional modification of feature)R98(Release 1998)D (editorial modification)R99(Release 1999)tailed explanations of the above categories canRel-4(Release 4)found in 3GPP TR 21.900.Rel-5(Release 5)Rel-6(Release 6)Rel-6(Release 6) |
| Summary of change:8 | The Failure message used in section 10.4 is removed. Section 10.4 is clarified as for how to report the unsuccessful outcome caused by logical errors in both class 1 procedures and class 3 procedures. |
| | Impact assessment towards the previous version of the specification (same release): |
| | This CR has isolated impact towards the previous version of the specification (same release). |
| | This CR has an impact under functional and protocol point of view. |
| | The impact can be considered isolated because it only affects the relocation, security, location related data, and RAB Assignment functions. |
| Consequences if a solution of approved: | Inter-working problems due to logical errors incorrectly reported by different vendors. |

| Clauses affected: | ж | 1(|).4, | 10.5 | | |
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| | Γ | Υ | Ν | | | |
| Other specs | ж | Χ | | Other core specifications | ж | 25.413 REL-4 CR571r1 |
| | | | | | | 25.413 REL-5 CR572r1 |
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| | | | | | | 25.453 REL-6 CR050 |
| affected: | | | Χ | Test specifications | | |
| | | | Χ | O&M Specifications | | |
| | | | | - | | |
| Other comments: | ж | | | | | |

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12

Class 1:

Protocol Causes:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a <u>failure</u>-message to <u>report this unsuccessful outcome</u>, <u>the this failure</u>-message shall be sent with an appropriate cause value. Typical cause values are:

- 1. Semantic Error.
- 2. Message not compatible with receiver state.

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a failure message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value.

10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclauses of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.
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 - If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality "ignore and notify" have earlier occurred within the same procedure.

3GPP TSG-RAN3 Meeting #36 Paris, France, 17th-23th February 2003

| | CR-Form-v7 |
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| ^ж 2 | 5.453 CR 050 # rev - # Current version: 6.0.0 # |
| For <u>HELP</u> on using | g this form, see bottom of this page or look at the pop-up text over the \Re symbols. |
| Proposed change affe | ects: UICC apps # ME Radio Access Network X Core Network |
| Title: % C | Correction of failure message used for logical errors |
| Source: ೫ F | AN WG3 |
| Work item code: ೫ <mark>T</mark> | EI5 Date: % 23/05/2003 |
| Category: # A Us De be | Release: #Rel-6Recease: f (correction)2A (corresponds to a correction in an earlier release)R96B (addition of feature),R97C (functional modification of feature)R98D (editorial modification)R99C (functional modification)R99(Release 1998)D (editorial modification)R99Rel-4found in 3GPP TR 21.900.Rel-6Rel-6Rel-6Rel-7Rel-8Rel-8Rel-6Rel-7Rel-8Rel-8Rel-6Rel-7Rel-8Rel-6Rel-7Rel-8Rel-8Rel-9Rel-9Rel-6Rel-7Rel-8Rel-8Rel-9 |
| Summary of change: | The Failure message used in section 10.4 is removed. Section 10.4 is clarified as for how to report the unsuccessful outcome caused by logical errors in both class 1 procedures and class 3 procedures. |
| | Impact assessment towards the previous version of the specification (same release): |
| | This CR has isolated impact towards the previous version of the specification (same release). |
| | This CR has an impact under functional and protocol point of view. |
| | security, location related data, and RAB Assignment functions. |
| Consequences if not approved: | # Inter-working problems due to logical errors incorrectly reported by different vendors. |

| Clauses affected: | ж | 1(|).4, | 10.5 | | |
|-------------------|---|----|------|---------------------------|---|----------------------|
| | | | | | | |
| | Γ | Y | Ν | | | |
| Other specs | ж | Χ | | Other core specifications | ж | 25.413 REL-4 CR571r1 |
| | | | | | | 25.413 REL-5 CR572r1 |
| | | | | | | 25.419 REL-4 CR116 |
| | | | | | | 25.419 REL-5 CR117 |
| | | | | | | 25.423 REL-4 CR841 |
| | | | | | | 25.423 REL-5 CR842 |
| | | | | | | 25.433 REL-4 CR866 |
| | | | | | | 25.433 REL-5 CR867 |
| | | | | | | 25.453 REL-5 CR049 |
| affected: | | | Χ | Test specifications | | |
| | | | Χ | O&M Specifications | | |
| | | | | - | | |
| Other comments: | Ж | | | | | |

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality of the IEs/IE groups containing the erroneous values.

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Class 1:

Protocol Causes:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a <u>failure</u>-message to <u>report this unsuccessful outcome</u>, <u>the this failure</u>-message shall be sent with an appropriate cause value. Typical cause values are:

- 1. Semantic Error.
- 2. Message not compatible with receiver state.

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a failure message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value.

10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclauses of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.
- In case a response message, failure message or Error Indication message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.
 - If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality "ignore and notify" have earlier occurred within the same procedure.