

CHANGE REQUEST

⌘ **25.331 CR 1482** ⌘ rev ⌘ Current version: **4.4.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title: ⌘ Remaining clarification of Measurement Validity and Valid Measurement Objects

Source: ⌘ Ericsson, Siemens, Qualcomm, TTPcom, Nokia

Work item code: ⌘ TEI

Date: ⌘ 20.05.02

Category: ⌘ **A**

Release: ⌘ REL-4

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)

Reason for change: ⌘ The following deficiencies related to ongoing measurements in a changing environment w.r.t. existing transport channels and RB's have been identified for the traffic volume measurements (TVM) and the quality measurement (QM):

1. The UE behaviour related to TVM and referenced (temporarily) non-existing transport channels is specified ambiguously.
2. The UE behaviour related to QM and referenced (temporarily) non-existing transport channels is not specified.
3. The UE behaviour related to adding a transport channel during an ongoing TVM or QM is specified somewhat ambiguously.
4. The UE behaviour related to adding new RB's mapped to a transport channel on which TVM event triggering or reporting is configured is not specified unambiguously.

Summary of change: ⌘

1. It is clarified that the UE in relation to an ongoing TVM or QM, does not need to take any action when transport channels that are indicated in reporting/triggering IE's are deleted other than not reporting/triggering on these transport channels as long as they do not exist.
2. See 1)
3. The UE behaviour w.r.t. adding a transport channel when a QM or TVM is ongoing is clarified.
4. It is clarified that newly created RB's have to be considered for the TVM by the UE, when these RB's are mapped to a transport channel used for TVM event triggering or reporting.

Impact Analysis:

Impact is isolated only to measurement functions:

Correction to a function where the specification was:

- ambiguous and incomplete with respect to some specific reconfigurations, i.e. UE measurement behaviour after the removal/addition of transport channels, and the addition of radio bearers.

Would not affect implementations behaving as indicated in the CR, may affect implementations supporting the corrected functionality otherwise.

If the UE does not implement this CR it may report misleading values in the MEASUREMENT REPORT messages in these specific conditions.

If UTRAN does not implement this CR it may erroneously interpret some reported measurement values. This may affect the implemented RRM strategies that use these reports.

Consequences if not approved:

- ⌘ The UE may not know what to measure after a transport channel is added or removed. Similarly, the UE behavior is not explicit enough for the case in which a new radio bearer is added and mapped to a transport channel that is the subject of an existing measurement. As a result, the UE non complying to this changes may report misleading measured values to UTRAN, negatively affecting the efficacy of the RRM strategies implemented by UTRAN. This may result in the inefficient use of the radio resources in the specific cases described above.

Clauses affected: ⌘ 8.4.1.10.1, 8.4.1.10.2, 8.4.1.10.3

Other specs Affected:

- ⌘ 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/3G_Specs/CRs.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.

8.4.1.10 Changes in ~~Measurements when~~ measurement objects ~~is no longer valid~~

8.4.1.10.1 Traffic volume measurement

When performing traffic volume event evaluation or reporting related to a certain transport channel, the UE shall consider all RB's which are mapped to the concerning transport channel e.g. if an additional RB is established on a transport channel used for event triggering or reporting, the new RB shall be taken into account.

If the IE "Traffic volume measurement object" is included for this measurement:

1> while a transport channel that is referenced in the IE "Traffic volume measurement object" does not exist, the UE shall not perform any reporting related to this transport channel.

else:

1> the UE shall report on all existing uplink transport channels; e.g. if an additional transport channel is established while the measurement is ongoing, this new transport channel shall be taken into account in the traffic volume measurement reporting.

For every traffic volume event,

1> if the IE "Uplink transport channel type" is not included in the IE "Traffic volume measurement reporting criteria", or the "Uplink transport channel type" has the value "DCH" or "USCH" and the IE "UL transport channel id" is not included in the IE "Traffic volume measurement reporting criteria":

2> if the IE "Traffic volume measurement object" is not included:

3> the UE shall take all UL transport channels into account for event triggering; e.g. if an additional transport channel is established while the measurement is ongoing, this new transport channel shall be taken into account in the traffic volume event triggering.

2> else:

3> while a transport channel that is referenced in the IE "Traffic Volume Measurement object" does not exist, the UE shall not take this transport channel identity into account in the traffic volume measurement triggering.

1> else:

2> while a transport channel that is referenced in the IE "Traffic Volume Measurement Reporting Criteria" does not exist, the UE shall not take this transport channel identity into account in the traffic volume event triggering.

~~If UE is no longer using the transport channel that is specified in the IE "Traffic volume measurement object", UE shall ignore any measurements that are assigned to that transport channel. If none of the transport channels that are specified in "traffic volume measurement object" is being used, UE shall delete that particular measurement and its measurement identity from the variable MEASUREMENT_IDENTITY.~~

8.4.1.10.2 Quality measurement

While a transport channel that is explicitly referenced with a transport channel identity in the IE "Quality Reporting Quantity" does not exist, the UE shall:

1> not perform any reporting related to this transport channel identity.

If the IE "Quality Reporting Quantity" does not contain any explicit transport channel identities, the UE shall:

1> report the quality of all existing downlink dedicated transport channels;

1> if an additional transport channel is established while the measurement is ongoing, the UE shall:

2> take into account this new transport channel in the quality measurement reporting.

While a transport channel that is explicitly referenced with a transport channel id in the IE "Quality Measurement Reporting Criteria" does not exist, the UE shall:

1> not take this transport channel identity into account in the quality measurement event triggering.

8.4.1.10.3 Intra-frequency, Inter-frequency and Inter-RAT measurements

For measurements which include the IE "Cells for measurement" the UE shall:

1> while an IE "Intra-frequency cell id" or IE "Inter-frequency cell id" or IE "Inter-RAT cell id" in the IE "Cells for measurement" points to a position in the variable CELL_INFO_LIST which is marked as "vacant":

2> the UE shall not take this position into account for event triggering and reporting.

CHANGE REQUEST

⌘ **25.331 CR 1483** ⌘ rev ⌘ Current version: **5.0.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

| | | | |
|------------------------|---|-----------------|---|
| Title: | ⌘ Remaining clarification of Measurement Validity and Valid Measurement Objects | | |
| Source: | ⌘ Ericsson, Siemens, Qualcomm, TTPcom, Nokia | | |
| Work item code: | ⌘ TEI | Date: | ⌘ 20.05.02 |
| Category: | ⌘ A | Release: | ⌘ REL-5 |
| | Use <u>one</u> of the following categories: | | Use <u>one</u> 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) |

| | |
|---------------------------|---|
| Reason for change: | ⌘ The following deficiencies related to ongoing measurements in a changing environment w.r.t. existing transport channels and RB's have been identified for the traffic volume measurements (TVM) and the quality measurement (QM): |
| | <ol style="list-style-type: none"> 1. The UE behaviour related to TVM and referenced (temporarily) non-existing transport channels is specified ambiguously. 2. The UE behaviour related to QM and referenced (temporarily) non-existing transport channels is not specified. 3. The UE behaviour related to adding a transport channel during an ongoing TVM or QM is specified somewhat ambiguously. 4. The UE behaviour related to adding new RB's mapped to a transport channel on which TVM event triggering or reporting is configured is not specified unambiguously. |
| Summary of change: | ⌘ <ol style="list-style-type: none"> 1. It is clarified that the UE in relation to an ongoing TVM or QM, does not need to take any action when transport channels that are indicated in reporting/triggering IE's are deleted other than not reporting/triggering on these transport channels as long as they do not exist. 2. See 1) 3. The UE behaviour w.r.t. adding a transport channel when a QM or TVM is ongoing is clarified. 4. It is clarified that newly created RB's have to be considered for the TVM by the UE, when these RB's are mapped to a transport channel used for TVM event triggering or reporting. |

Impact Analysis:

Impact is isolated only to measurement functions:

Correction to a function where the specification was:

- ambiguous and incomplete with respect to some specific reconfigurations, i.e. UE measurement behaviour after the removal/addition of transport channels, and the addition of radio bearers.

Would not affect implementations behaving as indicated in the CR, may affect implementations supporting the corrected functionality otherwise.

If the UE does not implement this CR it may report misleading values in the MEASUREMENT REPORT messages in these specific conditions.

If UTRAN does not implement this CR it may erroneously interpret some reported measurement values. This may affect the implemented RRM strategies that use these reports.

Consequences if not approved:

- ⌘ The UE may not know what to measure after a transport channel is added or removed. Similarly, the UE behavior is not explicit enough for the case in which a new radio bearer is added and mapped to a transport channel that is the subject of an existing measurement. As a result, the UE non complying to this changes may report misleading measured values to UTRAN, negatively affecting the efficacy of the RRM strategies implemented by UTRAN. This may result in the inefficient use of the radio resources in the specific cases described above.

Clauses affected:

- ⌘ 8.4.1.10.1, 8.4.1.10.2, 8.4.1.10.3

Other specs Affected:

- ⌘ Other core specifications ⌘
- Test specifications
- O&M Specifications

Other comments:

⌘

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8.4.1.10 Changes in ~~Measurements when~~ measurement objects ~~is no longer valid~~

8.4.1.10.1 Traffic volume measurement

When performing traffic volume event evaluation or reporting related to a certain transport channel, the UE shall consider all RB's which are mapped to the concerning transport channel e.g. if an additional RB is established on a transport channel used for event triggering or reporting, the new RB shall be taken into account.

If the IE "Traffic volume measurement object" is included for this measurement:

1> while a transport channel that is referenced in the IE "Traffic volume measurement object" does not exist, the UE shall not perform any reporting related to this transport channel.

else:

1> the UE shall report on all existing uplink transport channels; e.g. if an additional transport channel is established while the measurement is ongoing, this new transport channel shall be taken into account in the traffic volume measurement reporting.

For every traffic volume event,

1> if the IE "Uplink transport channel type" is not included in the IE "Traffic volume measurement reporting criteria", or the "Uplink transport channel type" has the value "DCH" or "USCH" and the IE "UL transport channel id" is not included in the IE "Traffic volume measurement reporting criteria":

2> if the IE "Traffic volume measurement object" is not included:

3> the UE shall take all UL transport channels into account for event triggering; e.g. if an additional transport channel is established while the measurement is ongoing, this new transport channel shall be taken into account in the traffic volume event triggering.

2> else:

3> while a transport channel that is referenced in the IE "Traffic Volume Measurement object" does not exist, the UE shall not take this transport channel identity into account in the traffic volume measurement triggering.

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2> while a transport channel that is referenced in the IE "Traffic Volume Measurement Reporting Criteria" does not exist, the UE shall not take this transport channel identity into account in the traffic volume event triggering.

~~If UE is no longer using the transport channel that is specified in the IE "Traffic volume measurement object", UE shall ignore any measurements that are assigned to that transport channel. If none of the transport channels that are specified in "traffic volume measurement object" is being used, UE shall delete that particular measurement and its measurement identity from the variable MEASUREMENT_IDENTITY.~~

8.4.1.10.2 Quality measurement

While a transport channel that is explicitly referenced with a transport channel identity in the IE "Quality Reporting Quantity" does not exist, the UE shall:

1> not perform any reporting related to this transport channel identity.

If the IE "Quality Reporting Quantity" does not contain any explicit transport channel identities, the UE shall:

1> report the quality of all existing downlink dedicated transport channels;

1> if an additional transport channel is established while the measurement is ongoing, the UE shall:

2> take into account this new transport channel in the quality measurement reporting.

While a transport channel that is explicitly referenced with a transport channel id in the IE "Quality Measurement Reporting Criteria" does not exist, the UE shall:

1> not take this transport channel identity into account in the quality measurement event triggering.

8.4.1.10.3 Intra-frequency, Inter-frequency and Inter-RAT measurements

For measurements which include the IE "Cells for measurement" the UE shall:

1> while an IE "Intra-frequency cell id" or IE "Inter-frequency cell id" or IE "Inter-RAT cell id" in the IE "Cells for measurement" points to a position in the variable CELL_INFO_LIST which is marked as "vacant":

2> the UE shall not take this position into account for event triggering and reporting.

CHANGE REQUEST

⌘ **25.331 CR 1481** ⌘ rev ⌘ Current version: **3.10.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title: ⌘ Remaining clarification of Measurement Validity and Valid Measurement Objects

Source: ⌘ Ericsson, Siemens, Qualcomm, TTPcom, Nokia

Work item code: ⌘ TEI

Date: ⌘ 20.05.02

Category: ⌘ **F**

Use one of the following categories:

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A (corresponds to a correction in an earlier release)

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D (editorial modification)

Detailed explanations of the above categories can be found in 3GPP [TR 21.900](#).

Release: ⌘ **R99**

Use one of the following releases:

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REL-4 (Release 4)

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Summary of change: ⌘

1. It is clarified that the UE in relation to an ongoing TVM or QM, does not need to take any action when transport channels that are indicated in reporting/triggering IE's are deleted other than not reporting/triggering on these transport channels as long as they do not exist.
2. See 1)
3. The UE behaviour w.r.t. adding a transport channel when a QM or TVM is ongoing is clarified.
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Other comments: ⌘

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2> else:

3> while a transport channel that is referenced in the IE "Traffic Volume Measurement object" does not exist, the UE shall not take this transport channel identity into account in the traffic volume measurement triggering.

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While a transport channel that is explicitly referenced with a transport channel id in the IE "Quality Measurement Reporting Criteria" does not exist, the UE shall:

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