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| CR-Formv7 | |
| CHANGE REQUEST | |
| <i>⌘</i> 29.208 CR 053 <i>⌘</i> rev 1 <i>⌘</i> Current version: 5.5.1 <i>⌘</i> | |

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

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|------------------------|--|---|
| Title: | <i>⌘</i> Gq interface impacts on QoS parameter mapping definitions in TS 29.208 | |
| Source: | <i>⌘</i> Nokia, Nortel | |
| Work item code: | <i>⌘</i> QoS1 | Date: <i>⌘</i> 30/10/2003 |
| Category: | <i>⌘</i> B | Release: <i>⌘</i> Rel-6 |
| | 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 be found in 3GPP TR 21.900 . | Rel-4 (Release 4) |
| | | Rel-5 (Release 5) |
| | | Rel-6 (Release 6) |

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| Reason for change: | <i>⌘</i> The QoS parameter mapping aspects need to be updated due to the introduction of the new Gq interface (between the Application Function (AF) and the PDF) |
| Summary of change: | <i>⌘</i> The QoS parameter mapping subclause has been updated to contain the AF and related functionality. |
| Consequences if not approved: | <i>⌘</i> Mismatch between the TSs defining the Gq interface and TS 29.208 regarding the Gq interface. |

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|------------------------------|--|---|---|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|---|
| Clauses affected: | <i>⌘</i> 7.1 | | | | | | | | | |
| Other specs affected: | <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> | Y | N | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Other core specifications <i>⌘</i> Test specifications <i>⌘</i> O&M Specifications <i>⌘</i> |
| Y | N | | | | | | | | | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | |
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| Other comments: | <i>⌘</i> | | | | | | | | | |

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.

7 QoS parameter mapping

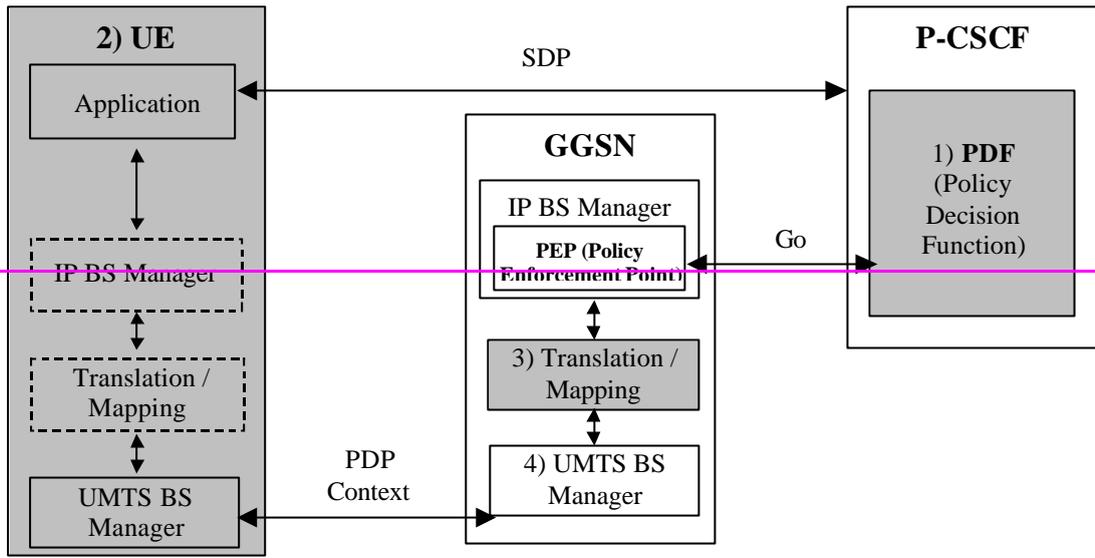
7.1 QoS parameter mapping between IMS UE, -AF and GPRS

In session based AF services in which the media attributes are negotiated, the negotiated media description is forwarded from the AF to the PDF for the media authorisation. For example, within the IMS, session establishment and modification involves an end-to-end message-exchange using SIP/SDP with negotiation of media attributes (e.g. Codecs) as defined in 3GPP TS 24.229 [3] and 3GPP TS 24.228 [2]. If the IMS applies Service Based Local Policy (SBLP), as specified in 3GPP TS 29.207 [7], then the P-CSCF shall forward the relevant SDP information to the PDF together with an indication of the originator. The PDF notes and authorises the IP flows of the chosen media components by mapping from SDP parameters to Authorized IP QoS parameters for transfer to the GGSN via the Go interface. The GGSN will map from the Authorized IP QoS parameters to the Authorized UMTS QoS parameters. The SIP/SDP-AF session signalling message will also have been passed on to the UE, where the UE will perform its own mapping from the SDP parameters and application demands to some UMTS QoS Parameters in order to populate the requested QoS field within the PDP context activation or modification. If SBLP is applied, i.e. the UE has received an authorization token, then the UE should also derive the Authorized UMTS QoS parameters from the SDP parameters. If the UE contains an IP BS manager IP QoS parameters are also generated. Upon receiving the PDP context activation or modification, the GGSN shall compare the UMTS QoS parameters against the Authorized UMTS QoS parameters. If the request lies within the limits authorised by the PDF, the PDP context activation or modification shall be accepted.

Figure 7.1 indicates the network entities where QoS mapping functionality is required. This mapping is performed by:

1. If SBLP is applied then the PDF maps from the SDP parameters determined from the SIP-AF session signalling to the Authorized IP QoS parameters that shall be passed to the GGSN via the Go interface. The mapping is performed for each flow identifier. Upon a request from the GGSN, the PDF combines per direction the individual Authorised IP QoS parameters per flow identifier that are identified by the binding information (see clause 7.1.1).
2. The UE maps from the SDP parameters to IP QoS parameters (if an IP BS manager is present) and to UMTS QoS parameters. This mapping is performed for each flow identifier. The IP and UMTS QoS parameters should be generated according to application demands and recommendations for conversational (3GPP TS 26.236 [6]) or streaming applications (3GPP TS 26.234 [5]) (see clause 7.2.1). If SBLP is applied, i.e. the UE has received an authorization token, then the mapping rules for the authorised QoS parameters should be taken into consideration because they define the maximum values for the different requested bit rates and traffic classes (see clause 7.2.2). In case the UE multiplexes several IP flows onto the same PDP context, it has to combine their IP and UMTS QoS parameters. If an IP BS manager is present, the Translation/Mapping function maps the IP QoS parameters to the corresponding UMTS QoS parameters.
3. The GGSN maps from the Authorized IP QoS parameters received from PDF to the Authorized UMTS QoS parameters (see clause 7.1.2).
4. The GGSN compares then the UMTS QoS parameters of the PDP context against the Authorized UMTS QoS parameters (see clause 7.1.3).

The mapping that takes place in the UE and the network shall be compatible in order to ensure that the GGSN will be able to correctly authorise the session.



NOTE 1: If SBLP is applied then SDP parameters to Authorized IP QoS parameters mapping.

NOTE 2: SDP parameters to (IP QoS parameters and) requested UMTS QoS parameters mapping and, if SBLP is applied, also SDP parameters to Authorized UMTS QoS parameters mapping.

NOTE 3: Authorized IP QoS parameters to Authorized UMTS QoS parameters mapping.

NOTE 4: UMTS QoS parameters with Authorized UMTS QoS parameters comparison.

Figure 7.1: Framework for QoS mapping between IMS-UE, AF and GPRS