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Datasheet for the decision
of 20 January 2023

Case Number:	T 3257/19 - 3.5.03
Application Number:	09709100.3
Publication Number:	2250787
IPC:	H04L29/06
Language of the proceedings:	EN

Title of invention:
Policy control for encapsulated data flows

Applicant:
QUALCOMM Incorporated

Headword:
Mobility protocol type/QUALCOMM

Relevant legal provisions:
EPC Art. 54(2), 56, 84
EPC R. 103(4)(c)
RPBA 2020 Art. 12(8)

Keyword:

Decision in written proceedings - (yes): cancellation of
hearing following appellant's announcement of non-attendance
Standard-related document D11 prior art under Art. 54(2) EPC -
(yes)
Inventive step - main, 1st and 2nd auxiliary requests (no)
Clarity - third auxiliary request (no)

Decisions cited:
T 0884/18

Case Number: T 3257/19 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 20 January 2023

Appellant: (Applicant)	QUALCOMM Incorporated Attn: International IP Administration 5775 Morehouse Drive San Diego, CA 92121 (US)
Representative:	Bardehle Pagenberg Partnerschaft mbB Patentanwälte Rechtsanwälte Prinzregentenplatz 7 81675 München (DE)

Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 18 July 2019
refusing European patent application
No. 09709100.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair	K. Bengi-Akyürek
Members:	J. Eraso Helguera
	C. Almberg

Summary of Facts and Submissions

I.   The appeal was lodged against the decision of the
        examining division to refuse the present European
        patent application for lack of novelty (Article 54 EPC)
        with respect to claims 11, 14 and 15 of a main request,
        for lack of inventive step (Article 56 EPC) with
        respect to at least claim 1 of each of the main request
        and auxiliary requests 1, 2 and 3, and for lack of
        clarity (Article 84 EPC) with respect to the
        independent claims of auxiliary request 3.

II.   During the examination proceedings, the examining
        division referred *inter alia* to the following prior-art
        document:

        D11: Qualcomm Europe: "Processing PCC in Release 8 -
                IP-CAN Type & RAT Type", S2-081161, 3GPP SA2 #63,
                Athens, Greece, February 2008.

III.   The appellant requested that the decision under appeal
        be set aside and that a patent be granted on the basis
        of the claims of one of four requests (**main request,
        auxiliary requests 1, 2 and 3**) subject to the decision
        and re-submitted with the statement of grounds of
        appeal.

IV.   In a communication pursuant to Article 15(1) RPBA 2020,
        the board stated its (negative) preliminary opinion on
        the allowability of all the claim requests.

V.   In response to that communication, the appellant
        informed the board that it would not be attending the
        arranged oral proceedings, and requested a decision
        "according to the current status of the file".

VI.   The board then cancelled those oral proceedings.

VII.   Claim 1 of the **main request** reads as follows:

         "A method (700) for handling policy rules in
         wireless networks, comprising:
         receiving (702) encapsulation information related to
         data flow communication from a core network
         gateway (206), wherein the encapsulation information
         includes a mobility protocol type;
         generating (704) one or more policy rules related to
         the data flow communication;
         transmitting (710) the policy rules to an access
         network gateway (204);
         and
         transmitting (708) the received encapsulation
         information to the access network gateway (204)."

         Claim 1 of **auxiliary request 1** is identical to claim 1
         of the main request.

         Claim 1 of **auxiliary request 2** reads as follows:

         "A method (700) for handling policy rules in
         wireless networks, comprising:
         receiving (702) encapsulation information related to
         data flow communication from a core network
         gateway (206), wherein the encapsulation information
         includes a mobility protocol type;
         generating (704) one or more policy rules related to
         the data flow communication;
         transmitting (710) the policy rules to an access
         network gateway (204);
         and
         transmitting (708) the received encapsulation
         information to the access network gateway (204),

wherein a trusted non-3GPP IP access device acts as the access network gateway."

Claim 1 of **auxiliary request 3** reads as follows:

"A method (700) for handling policy rules in wireless networks, comprising:
receiving (702) encapsulation information related to data flow communication from a core network gateway (206), wherein the encapsulation information includes a mobility protocol type;
generating (704) one or more policy rules related to the data flow communication;
transmitting (710) the policy rules to an access network gateway (204);
and
transmitting (708) the received encapsulation information to the access network gateway (204) for utilizing the encapsulation information to unencapsulate tunneled IP flows, wherein a trusted non-3GPP IP access device acts as the access network gateway."

Reasons for the Decision

1.   *Decision in written proceedings*

1.1   In accordance with established case law, where oral proceedings are appointed upon a party's request and where the party subsequently expresses their intention not to attend, the appellant's statement is equivalent to a withdrawal of the request for oral proceedings.

1.2   As the board does not consider holding oral proceedings to be expedient in this case (see Article 116(1) EPC),

these were cancelled and the requested decision is to
be handed down in written proceedings (Article 12(8)
RPBA 2020).

1.3   Given that the appellant's indication of non-attendance
        was not submitted within one month of notification of
        the board's communication under Article 15(1) RPBA
        2020, no reimbursement of the appeal fee can be ordered
        under Rule 103(4)(c) EPC.

2.   *Effective filing date of the application*

        The examining division concluded in Reasons 7.4 of the
        appealed decision that the effective filing date
        pursuant to Article 89 EPC of the claims of all four
        claim requests was, at the earliest, **14 March 2008**. The
        appellant has not questioned this finding and the board
        sees no reason to contest it either.

3.   *Publication date of document D11*

3.1   The appellant submitted that the publication date of
        document **D11** had not been reliably established by the
        examining division. In particular, the appellant
        objected that the examining division failed to explain
        the meaning of the "server date" referred to in the
        reasons of the appealed decision and, even if that date
        was considered as the "upload date" of the presently
        downloadable version of the zip-file, the reasons were
        completely silent with regard to *when* the discussed
        zip-file was indeed made available for download by
        anyone. Even if it was the case, it could not be
        determined that the document "could be found with the
        help of a public web search engine by using one or more
        keywords all related to the essence of the content of
        that document", with reference to case T 1553/06,

Headnote 4. Furthermore, the content of the written contributions in the list provided by the examining division could not be reliably determined based on the list of contributions alone. It was not apparent whether the referenced list, which bears a date in 2019, was created and made available to the public *prior* to the effective date of the application. There were various inconsistencies between the dates borne by document D11 and the date attributed to the respective zip-file at the server referred to by the examining division. In addition, the meeting referenced in the appealed decision had taken place on "18-22 February 2008".

3.2   The appellant seems to argue that the examining division failed to establish *beyond reasonable doubt* the <u>exact</u> earliest date of public availability of those documents. However, according to the established case law (see e.g. T 884/18, Reasons 6), this is no longer the applicable standard of proof required for assessing whether or not documents downloaded from the Internet or standard preparatory documents belong to the state of the art. In view of the available evidence and arguments, the board is sufficiently convinced that D11 was indeed made available by file upload to a public 3GPP server before the 3GPP TSG-SA2 Meeting #63 took place, i.e., at any rate, well before 14 March 2008.

3.3   It follows that document D11 is to be considered prior art under Article 54(2) EPC.

4.   MAIN REQUEST

        Claim 1 comprises the following limiting features (board's outline):

A method for handling policy rules in wireless
networks, comprising:
(a) receiving encapsulation information related to data
    flow communication from a core network gateway,
(b) wherein the encapsulation information includes a
    mobility protocol type (MPT);
(c) generating one or more policy rules related to the
    data flow communication;
(d) transmitting the policy rules to an access network
    gateway;
(e) transmitting the received encapsulation information
    to the access network gateway.

4.1   *Claim 1 – inventive step (Article 56 EPC)*

4.1.1   The appellant considered document **D11** to be the closest
        prior art, since it was directed to a multi-mobility
        protocol architecture involving signalling exchange
        with various access networks. In the appellant's
        favour, the board takes D11 as a suitable starting
        point for the assessment of inventive step.

4.1.2   Using the wording of claim 1, document D11 discloses:

        A method for handling policy rules in wireless
        networks, comprising:
        (a) receiving (p. 12, step after C.1; p. 13, step 5;
            p. 14, step 6a) encapsulation information related
            to data flow communication from a core network
            gateway (p. 12 to 14: "PDN GW"),
        (b) wherein the encapsulation information includes a
            MPT (p. 12 to 14: "MPT");
        (c) generating one or more policy rules related to the
            data flow communication (p. 9: "Based on this
            information, the PCRF can derive tunneled QoS rules

for the BBERF"; p. 12 to 14: "(un-)tunneled QoS
rules");

(d) transmitting (p. 12, step C.8; p. 13, step 13;
p. 14, step after 7) the policy rules to an access
network gateway (p. 12: "Serving GW", p. 13 and 14:
"Trusted Non-3GPP IP Access").

4.1.3   The subject-matter of claim 1 thus differs from D11 in
feature (e).

4.1.4   This subject-matter was considered, at least
implicitly, in Reasons 13.1.2 of the appealed decision,
where the examining division concluded that no
technical effect was induced by feature (e), because
the transmitted QoS rules already contained all the
information needed by the "trusted non-3GPP IP access"
device.

4.1.5   The board does not share this view. In D11, when GTP or
PMIPv6 is used as MPT, the access network gateway is an
endpoint of an "S2a" or "S5" tunnel and has access to
un-tunnelled information from/to the UE (see e.g.
page 11, steps 13 to 15; page 12, steps C.1 to C.8;
page 13, steps 4 to 9). Explicitly receiving the MPT
information from the PCRF helps the access network
gateway verify that PCRF has considered the same MPT
when generating the (un-tunnelled) QoS rules. When
DSMIPv6 is used, the access network gateway is however
not an endpoint of the tunnel extending between UE and
PDN GW (see e.g. page 14, steps 4, 5 and 7). In this
case, receiving the MPT from the PCRF enables the
access network gateway to realise that the QoS rules
are tunnelled and that further information, such as the
encapsulation header, might be needed.

Thus, on the basis of distinguishing feature (e), the board considers the objective technical problem to be *how to enable the access network gateway to verify that the QoS rules received from the PCRF correctly take into account the mobility protocol used by the UE in the system of D11.*

4.1.6   The subject-matter of claim 1 does not involve an inventive step (Article 56 EPC) starting from **D11** for the following reasons:

Document D11 explicitly discloses on page 9 that the PCRF needs to know what MPT is used in the core network. Based on the protocol, a different logic is used and different procedures are "expected". This means that the QoS rules subsequently provided by the PCRF to the access network gateway (e.g. "Serving GW", "Trusted Non-3GPP IP Access") should take into consideration the specific MPT to be used by the UE (e.g. GTP, PMIPv6, DSMIPv6). Otherwise, the access network gateway would not be able to correctly perform QoS filtering on encapsulated flows. Hence, forwarding the MPT information received from the PDN GW (together with the updated QoS rules) would have been the most straightforward manner to let the access network gateway verify that the PCRF has applied the correct procedures in accordance with the mobility protocol actually used by the UE.

4.1.7   The appellant submitted that, according to the teaching of D11, the "Trusted Non-3GPP IP Access" had to be aware of the MPT without being explicitly signalled by the MPT, and that D11 was not explicit with regard to the source of such knowledge at the Trusted Non-3GPP IP Access. The Trusted Non-3GPP IP Access could have been statically configured for a specific MPT, or,

alternatively, the "Gateway Control" transmitted by
hPCRF to the Trusted Non-3GPP IP Access in the step
following step 7 on page 14 of D11 could provide the
Trusted Non-3GPP IP Access with sufficient information
regarding how to interpret data encapsulated in
accordance with the selected MPT. However, both
approaches would have limitations, such as (i) the need
for a static configuration of the Trusted Non-3GPP IP
Access for a specific MPT or (ii) the need for a
specific implementation of hPCRF for disparate mobility
protocols.

4.1.8   This is not convincing. There is no indication that D11
        should suffer from the limitations (i) and (ii)
        indicated by the appellant and that the Trusted
        Non-3GPP IP Access of D11 had to be able to interpret
        the QoS rules irrespective of the MPT used. If PMIPv6
        is used, the Trusted Non-3GPP IP Access is already
        aware by reason of its participation as a PMIP Tunnel
        endpoint (see page 13, step 9). If DSMIPv6 is used, the
        Trusted Non-3GPP IP Access can at least infer this
        situation from the fact that the QoS rules are
        "tunnelled" (see page 14).

4.2   It follows that the main request is not allowable under
        Article 56 EPC.

5.   AUXILIARY REQUEST 1

5.1   Claim 1 - inventive step (Article 56 EPC)

5.1.1   Claim 1 of auxiliary request 1 is identical to claim 1
        of the main request. Therefore, the reasoning set out
        in point 4.1 above applies *mutatis mutandis.*

5.1.2   The appellant submitted that D11 did not recognise the
         limitations attributable to not providing the MPT to
         the access network, and that feature (e) involved a
         trade-off, since providing the mobility protocol type
         to the access network involved (i) additional
         signalling to which both the core network and the
         various access networks had to adhere, (ii) additional
         standardisation efforts and (iii) a paradigm shift of
         transferring additional responsibility towards an
         implementation of the access network from the
         implementation of the core network. These efforts
         resulted in enhanced flexibility with regard to
         signalling between the core network and the access
         network. Starting from D11 alone, the skilled person
         would thus not have arrived at the result of the above
         trade-off.

5.1.3   This argument is not persuasive. The skilled person,
         starting from D11, would generally have known that
         disadvantages (i) and (ii) are actually compensated by
         the advantage obtained through the addition of
         feature (e). As regards (iii), the addition of
         feature (e) constitutes no change of paradigm vis-à-vis
         D11, since in this document the QoS rules generated by
         the PCRF take into account the MPT used, as opposed to
         the previous situation in which the PCRF did not know
         which MPT was being used or whether rules were
         tunnelled (see "Notes" on pages 6 to 8).

5.2   Auxiliary request 1 is therefore not allowable under
         Article 56 EPC either.

6.   AUXILIARY REQUEST 2

         Claim 1 of auxiliary request 2 comprises all the
         limiting features of claim 1 of the main request and

the following additional feature (board's outline and underlining):

(f) wherein a <u>trusted non-3GPP IP access device</u> acts as the access network gateway.

6.1   Claim 1 - inventive step (Article 56 EPC)

6.1.1   Feature (f) is already disclosed by document **D11** (see pages 13 and 14: "Trusted Non-3GPP IP Access"). The subject-matter of claim 1 of auxiliary request 2 thus differs from D11 only in feature (e) and the reasoning set out in point 4.1 above applies *mutatis mutandis*.

6.2   Hence, auxiliary request 2 is likewise not allowable under Article 56 EPC.

7.   AUXILIARY REQUEST 3

         Claim 1 of auxiliary request 3 comprises all the limiting features of claim 1 of auxiliary request 2 and the following additional feature (board's outline and underlining):

(g) transmitting the received encapsulation information to the access network gateway is done <u>for utilising the encapsulation information to unencapsulate tunnelled IP flows</u>.

7.1   Claim 1 - clarity (Article 84 EPC)

7.1.1   The board concurs with the examining division that feature (g) is not clear, and that it is not apparent which limitation the further method step is supposed to specify.

7.1.2   The appellant submitted that this feature functionally
        limited the "encapsulation information" by defining its
        content such that it had to be suitable for the claimed
        use. In other words, the discussed feature defined the
        content of the encapsulation information such that the
        latter was able to serve the function of
        unencapsulating tunnelled IP flows. The present
        application (see paragraphs [0049] and [0062] as filed)
        defined that the encapsulation information could assume
        among others a NULL value, but the NULL value would not
        be suitable for *unencapsulating* the tunnelled IP flows.
        Thus, by defining the suitability of the "encapsulation
        information" for *unencapsulating*, a further limitation
        was imposed upon the (generic) term "encapsulation
        information".

7.1.3   This is not convincing. It is not apparent that the
        addition of feature (g) should necessarily further
        limit feature (e) so as to exclude the inclusion of a
        "NULL value" as part of the encapsulation information.
        Even in those cases where the encapsulation information
        is set to NULL, the serving gateway still must perform
        decapsulation of IP flows as part of the GTP or PMIP
        tunnelling between itself and the PDN gateway (see
        paragraph [0050] of the description as filed). Hence,
        claim 1 fails to clearly establish for which
        subject-matter protection is actually sought.

7.2   Auxiliary request 3 is thus not allowable under
        Article 84 EPC.

8.   Since there is no allowable claim request on file, the
        appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

B. Brückner   K. Bengi-Akyürek

Decision electronically authenticated