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**Datasheet for the decision
of 3 March 2022**

Case Number: T 1636/18 - 3.5.01

Application Number: 10776856.6

Publication Number: 2491341

IPC: G06Q10/10, G01C21/00

Language of the proceedings: EN

Title of invention:
METHODS AND APPARATUS FOR ESTIMATING DEPARTURE TIME BASED ON
KNOWN CALENDAR EVENTS

Applicant:
Qualcomm Incorporated

Headword:
Estimating departure time/QUALCOMM

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - obtaining current time from a network (no -
obvious) - estimating travel time only when a current location
and an event location differ by more than a threshold (no -
not technical)

Decisions cited:
T 0258/03, T 1227/05, T 0641/00, G 0003/08, T 1755/10,
T 0520/13

Case Number: **T 1636/18 - 3.5.01**

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 3 March 2022

Appellant:	Qualcomm Incorporated
(Applicant)	Attn: International IP Administration
	5775 Morehouse Drive
	San Diego, CA 92121 (US)

Representative:	Bardehle Pagenberg Partnerschaft mbB
	Patentanwälte Rechtsanwälte
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Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 26 January 2018 refusing European patent application No. 10776856.6 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	W. Chandler
Members:	I. Kürten
	C. Schmidt

Summary of Facts and Submissions

I.   The appeal is against the decision of the examining
        division to refuse application No. 10776856.6.

II.   The examining division considered that the claims of
        the main and the first to fifth (1 to 5) auxiliary
        requests lacked an inventive step (Article 56 EPC) over
        document D4 (US 2007/0250257 A1).

III.   In the statement setting out the grounds of appeal, the
        appellant requested that the decision to refuse the
        application be set aside. The appellant requested that
        a patent be granted on the basis of the refused main
        request, filed on 17 February 2016, or one of auxiliary
        requests 0a, 1, 1a, 2, 2a, 3, 3a, 4, 4a, 5, and 5a,
        filed on 4 September 2017 (refused auxiliary requests
        1, 2, 3, 4 and 5) and 30 May 2018 (auxiliary requests
        0a, 1a, 2a, 3a, 4a and 5a filed with the statement of
        grounds of appeal). Oral proceedings were requested on
        an auxiliary basis.

IV.   In a communication under Rule 100(2) EPC, the Board
        provisionally agreed with the examining division's
        inventive step assessment. The Board reached the same
        conclusion for requests 0a to 5a. In a reply, the
        appellant filed additional arguments in favour of
        inventive step.

V.   The Board arranged for oral proceedings. In the
        communication accompanying the summons, the Board
        addressed the appellant's inventive step arguments.

VI.   At the oral proceedings, held by videoconference on
        3 March 2022, the appellant confirmed the requests
        submitted in writing.

VII.   Claim 1 of the main request reads as follows (with the
        appellant's numbering):

        1.   *A method of operating a wireless device for
               generating at least one departure alert for
               at least one event, the method comprising:*

        1.1   *obtaining scheduling data associated with a
               first event, wherein the first event
               scheduling data includes a first event time
               value and a first event location value;*

        1.2   *obtaining a device location value of the
               wireless device from a location detecting
               sensor associated with the wireless device
               or from a network;*

        1.3   *obtaining a current time value from a
               network;*

        1.4   *determining if the first event location
               value and the device location value differ
               by more than a event location threshold:*

        1.5   *upon a determination that the first event
               location value and the device location value
               differ by more than the event location
               threshold, estimating a first travel time
               value from the device location and the first
               event location;*

    1.6   generating, by the wireless device, a
    departure time value by comparing the first
    event time value and the estimated first
    travel time value; and

    1.7   generating, by the wireless device, a
    departure alert by comparing the departure
    time value and the current time value.

VIII.   Claim 1 of auxiliary request 1 adds at the end of feature 1.4 "*which includes a predetermined distance*".

IX.   Claim 1 of auxiliary request 2 replaces in feature 1.5 of claim 1 of auxiliary request 1 "*upon a determination*" with "*if the determining reveals*".

X.   Claim 1 of auxiliary request 3 adds at the end of feature 1.5 of claim 1 of auxiliary request 2 "*wherein said estimating includes determining whether movement of the wireless device is associated with at least one of walking, moving in a personal transportation vehicle or moving in a public transportation vehicle*".

XI.   Claim 1 of auxiliary request 4 adds that the determining in feature 1.5 of claim 1 of auxiliary request 3 is "*by the wireless device*".

XII.   Claim 1 of auxiliary request 5 deletes in feature 1.2 of claim 1 of auxiliary request 3 the option of obtaining the device location "from a location detecting sensor associated with the wireless device" and adds in feature 1.5 that the determining is "*by an associated server*".

XIII.   Claim 1 of auxiliary requests 0a to 5a adds at the end of feature 1.4 of claim 1 of the main request and

auxiliary requests 1 to 5 "*performing the following steps and refraining from performing said steps otherwise*" and the following feature at the end of the claim:

> "*wherein estimating the first travel time includes determining at least one route between the device location and the first event location and determining the influence [sic] at least one of: traffic conditions, a mode of transportation selection, or a user selection of one route, on travel between said locations.*"

Reasons for the Decision

1.   The invention

The invention concerns estimating the departure time when users have to leave their current location in order to arrive at the destination for a scheduled event on time (paragraph [0003] of the published application).

Looking at Figure 1, a user populates a calendar module 112 with an event 114 at a specified location 116 ([0029]). A wireless device 110 then calculates a departure time for this event by comparing its current location to the scheduled event location 116 ([0034]). If the two locations differ by more than a given threshold, the wireless device estimates the travel time from the current location to the event location ([0035]). Finally, the device determines a departure time from the estimated travel time and the scheduled

event time and generates an alert by comparing the
departure time and the current time ([0036]).

2.   Main request - inventive step

2.1   It is common ground that D4 is a valid starting point
        for assessing inventive step and that claim 1 differs
        by features 1.3 to 1.5.

2.2   Concerning feature 1.3, the appellant argued that
        network-provided time properly reflected the local time
        and resulted in more accurate departure alerts.
        Accurate alerts were also energy-efficient as they
        rendered the generation of further alerts unnecessary.
        Moreover, as network-provided time was shared with
        other devices served by the network, it led to a better
        synchronisation between these devices and between the
        event participants.

2.3   The Board, however, agrees with the examining division
        that obtaining the current time from a network is one
        of several obvious choices. Cell phones normally have
        the option to obtain the time from their network
        provider. The description mentions this possibility
        only in passing ([0033]) without indicating any effects
        or advantages associated with it. The appellant's
        efficiency and synchronisation arguments are merely
        speculative, as claim 1 neither discloses how the alert
        generation depends on the current time nor mentions
        other event participants or devices that might be
        affected by this alert.

2.4   Concerning features 1.4 and 1.5, the appellant argued
        that not estimating the travel and departure times when
        the mobile device was near the destination achieved the
        technical effect of saving computational resources. The

problem solved was thus to provide a more energy-efficient way of creating departure alerts. In line with established case law, non-technical features which contributed to the solution of a technical problem also had to be taken into account in the assessment of inventive step.

2.5   The Board is not convinced. Estimating travel times and generating departure alerts is known from D4. Features 1.4 and 1.5 merely specify a condition on when to perform (or not) these operations. In the Board's view, this condition does not necessarily come from technical considerations, but may merely reflect subjective user preferences. Some users may prefer not to be disturbed by annoying notifications when they are close to their intended destination. Other users, however, may be unfamiliar with the neighborhood and may prefer to have such reminders.

       Any energy efficiency, if indeed achieved, would be an inevitable bonus effect resulting from the straightforward implementation of these non-technical considerations. An effect that is a mere consequence of a modified business scheme cannot contribute to the technical character of the subject-matter claimed (see e.g. T 258/03 - *Auction method/HITACHI*, Headnote II).

2.6   Moreover, according to the jurisprudence of the boards of appeal, the technical character of a feature is independent of the prior art. Therefore, relative effects, such as reduced processing time, cannot be used to distinguish between technical and non-technical method steps. This is because it is always possible to conceive of a method that requires more computational resources (e.g. *T 1227/05 - Circuit simulation/ Infineon*, point 3.2.5). Considering the relative amount

of processing time as an indicator of technicality might render the same method both technical and non-technical depending on the chosen starting point in the prior art. Although features reducing the required computing resources might involve an inventive step, the assessment of inventive step presupposes that these features contribute to the technical character of the invention.

2.7   The appellant also argued during the written proceedings that since the method was carried out on a wireless device, and since it caused a change in this device, i.e. a necessary change in the computational resources by carrying out the method, a technical contribution had to be acknowledged.

2.8   However, these effects are inherent to any computer-implemented method. Inherent effects are not enough to establish technical character. A "further" technical effect going beyond the normal effect of implementing something in a computer has to be achieved. (G 3/08 - *Programs for computers*, point 13.5; T 1755/10 - *Software structure/TRILOGY*, point 6).

Features 1.4 and 1.5, however, do not achieve a "further" technical effect in the context of the claimed method.

2.9   The Board thus agrees with the examining division that features 1.4 and 1.5 may arise from non-technical considerations, which according to the COMVIK approach (T 641/00 - *Two identities/COMVIK*) can be incorporated into the formulation of the technical problem. They need not be part of the solution which has to be examined for inventive step. The implementation of these features within the system of D4 is obvious not

least because it is claimed in functional terms without any technical details.

2.10   Finally, the Board notes that feature 1.3 on the one hand, and features 1.4 and 1.5, on the other hand, do not produce a synergetic effect. Accordingly, the claimed method does not involve an inventive step (Article 56 EPC) as it is a mere juxtaposition of individually obvious features.

3.   Auxiliary requests 1 and 2

3.1   The amendments in these requests are of a clarifying nature and have already been taken into account in the assessment of inventive step of the main request. Therefore, claim 1 of auxiliary requests 1 and 2 does not involve an inventive step (Article 56 EPC).

4.   Auxiliary request 3

4.1   The appellant argued that the amendment in claim 1 further reinforced the technical character of the invention, as it involved determining a physical property of the wireless device, i.e. "*whether movement of the wireless device is associated with at least one of walking, moving in a personal transportation vehicle or moving in a public transportation vehicle*". In the appellant's view, the skilled person would understand from the claim wording that the type of movement of the wireless device was determined automatically by evaluating the device's movement.

4.2   The Board considers that this interpretation is based on speculation since the application does not disclose anywhere how the device's type of movement is determined. The broad wording of claim 1 includes the

possibility of manually selecting the device's type of
movement from a list of pre-defined options (i.e.
walking, personal vehicle or public transport). It is,
however, generally known that the mode of
transportation may affect the travel time. Enabling the
user to choose a preferred mode and taking this into
account when estimating the travel time are, in the
Board's view, obvious measures. The application does
not disclose any specific implementation of this
general idea that could contribute to inventive step.

4.3   Accordingly, claim 1 of auxiliary request 3 does not
         involve an inventive step (Article 56 EPC).

5.   Auxiliary requests 4 and 5

5.1   The Board agrees with the examining division that in a
         client-server system it is a matter of routine design
         whether to implement a particular functionality on the
         client device or on the server. It involves, amongst
         other things, well-known trade-offs between network
         bandwidth and available computational resources.

         The appellant's arguments that in auxiliary request 4
         the time lag is reduced, whereas in auxiliary request 5
         the computation is resource-efficient for the wireless
         device are examples of such trade-offs (see e.g.
         T 520/13 - *Advertisement selection/MICROSOFT*, point
         3.4).

         The restriction in claim 1 of auxiliary request 5 that
         the device location is obtained from a network is known
         from D4, see e.g. Figure 2 and [0048].

5.2   Accordingly, claim 1 of auxiliary requests 4 and 5 does
         not involve an inventive step (Article 56 EPC).

6.   Auxiliary requests 0a to 5a

6.1   The appellant argued that these requests reinforced the
         technical effect of increased efficiency. The added
         features made it more apparent how much processing was
         saved if the travel time estimation and the subsequent
         steps were not performed.

6.2   The Board notes that D4 also determines possible routes
         and takes into account the traffic conditions when
         estimating the travel time ([0024] to [0026], claim 8).
         Hence, the observations under points 2. to 5. above
         also apply to auxiliary requests 0a to 5a. Any
         efficiency, if indeed achieved, is a direct consequence
         of implementing non-technical requirements; it is not
         the result of technical considerations.

6.3   Accordingly, claim 1 of auxiliary requests 0a to 5a
         lacks an inventive step (Article 56 EPC).

7.   As none of the appellant's requests is allowable, it
         follows that the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

T. Buschek   W. Chandler

Decision electronically authenticated