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**Datasheet for the decision
of 23 March 2021**

Case Number: T 1352/18 - 3.5.03

Application Number: 05819443.2

Publication Number: 1794995

IPC: H04M3/42

Language of the proceedings: EN

Title of invention:

Wireless device to manage cross-network telecommunication services

Applicant:

Avaya Integrated Cabinet Solutions Inc.

Headword:

Call routing matrix/AVAYA

Relevant legal provisions:

EPC Art. 56

RPBA 2020 Art. 13(2)

Keyword:

Inventive step - main and first auxiliary requests (no): mixed invention (administrative rules defined by a user profile)
Admittance of late-filed request - second auxiliary request (no): no exceptional circumstances and fresh case

Decisions cited:

T 0641/00, T 1989/12



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Case Number: T 1352/18 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 23 March 2021

Appellant: Avaya Integrated Cabinet Solutions Inc.
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 11 January 2018
refusing European patent application
No. 05819443.2 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 by the applicant against the decision of the examining division refusing the present European patent application for lack of novelty (Article 54 EPC) and inventive step (Article 56 EPC) with respect to claim 1 of each of a main request, a first auxiliary request and a second auxiliary request.

II. In its decision, the examining division referred *inter alia* to the following prior-art document:

D1: US 5,329,578.

III. Oral proceedings before the board were held on 23 March 2021 by videoconference in accordance with the appellant's request (cf. Article 116(1) EPC).

The appellant requested that the appealed decision be set aside and that a patent be granted on the basis of the claims of a **main request** or a **first auxiliary request**, both subject to the decision under appeal and re-submitted with the statement of grounds of appeal, or a **second auxiliary request** filed after notification of the summons to oral proceedings before the board.

At the end of the oral proceedings, the board's decision was announced.

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

"A computer-implemented method for handling incoming communications to a user, comprising:

for at least one user activity mode (302):

determining at least one communication management directive (303A, 303B, 303C) to be associated with the user activity mode (302) for each of a plurality of communication networks (1202, 103);

storing in a database (105A) separate from the plurality of communication networks (1202, 103), the association between the communication management directive (303A, 303B, 303C) and the user activity mode (302);

responsive to a communication being initiated to one of a plurality of user addresses associated with the user and with one of the plurality of communication networks (1202, 103):

determining a current activity mode for the user;
retrieving the stored association for the current user activity mode; and

determining, responsive to the retrieved association and responsive to a determination as to which user address was used in initiating the communication, which communication management directive applies to the initiated communication;
and

providing the applicable communication management directive to said one of the plurality of communication networks (1202, 103)."

Claim 1 of the **first auxiliary request** reads as follows (amendments vis-à-vis claim 1 of the main request highlighted by the board):

"A computer-implemented method for handling incoming communications to a user, comprising:

for at least one user activity mode (302):

determining at least one communication management directive (303A, 303B, 303C) to be associated with the

user activity mode (302) for each of a plurality of communication networks (1202, 103);

storing in a database (105A) separate from the plurality of communication networks (1202, 103), the association between the communication management directive (303A, 303B, 303C) and the user activity mode (302);

responsive to a communication being initiated to one of a plurality of user addresses associated with the user and with one of the plurality of communication networks (104A, 104B, 104C), wherein a first user address associated with the user is associated with a first telephone network and a second user address associated with the user is associated with a second telephone network different from the first telephone network:

determining a current activity mode for the user;
retrieving the stored association for the current user activity mode; and

determining, responsive to the retrieved association and responsive to a determination as to which user address was used in initiating the communication, which communication management directive applies to the initiated communication, wherein the communication management directive comprises a call management directive from processing the telephone call by the communication network corresponding to the user address to which the communication was initiated; and

providing the applicable communication management directive to said one of the plurality of communication networks (1202, 103)."

Claim 1 of the **second auxiliary request** reads as follows:

"A computer-implemented method for handling incoming communications to a user, comprising:

- receiving from the user, via a first communication network (104A, 104B, 104C), a set of rules for selecting from a plurality of communication management directives (303A, 303B, 303C) for a plurality of second communication networks (104A, 104B, 104C) and for a plurality of user addresses associated with the user, wherein each rule comprises a set of parameters comprising:
 - a user activity mode; and
 - a user address from the plurality of user addresses that is used to initiate the communication;
- storing the set of rules;
- responsive to a communication being initiated by an originator to one of the plurality of user addresses associated with the user via and with one of the second communication networks (104A, 104B, 104C), providing to the second communication network (104A, 104B, 104C) at least one rule from the set of rules to select one of the plurality of communication management directives for the communication; and
- routing the communication according to the selected communication management directive to a third communication network."

Reasons for the Decision

1. *Technical background*

The present application centres on the provision and use of a user profile for call routing ("call routing matrix 1900"; see e.g. Fig. 19). In this user profile, based on a certain user activity mode (e.g. "At Home"; "At Office", etc.) so-called communication management directives (e.g. call forwarding settings such as "Send

to Voicemail"; "Ring Mobile", etc.) are associated with the user's distinct user addresses (e.g. telephone number, home/office email address) and the dedicated communication networks (e.g. PSTN, wireless networks, etc.). This user profile is supposed to be set up by the user and is most pertinently illustrated in Figure 19 of the present application:

Your currently active profile is At Office

Your Profiles	Which profile to use	Calls to Home from <family>	Calls to Home from <friends>	Other Calls to Home with CID	Other Calls to Home No CID	Calls to Office	Calls to Wireless	* Call notification
At Home	Use GPS	Home	Home	Home	Home	Office	Home	Home e-mail
At Office	M-F 8-5 Custom	Caller choice Home Office	Home	Home	Home	Office	Office	Office e-mail
In Meeting	Next 15 minutes	Caller choice Home Wireless	Home	Home	Home	Office	Wireless	Office e-mail
On The Go	Next hour	Wireless	Wireless	Home	Home	Wireless	Wireless	None
On Vacation	On Off	Wireless	Wireless	Home	Home	Wireless	Wireless	None

Switch to profile until

1902

1903

Profiles can also be selected from the wireless phone

FIG. 19

2. MAIN REQUEST

2.1 Claim 1 - novelty and inventive step (Articles 52(1), 54 and 56 EPC)

2.1.1 Compared to the wording of claim 1, **D1** discloses (board's outline and highlighting):

- (a) A computer-implemented method for handling incoming communications to a user, comprising:
- (b) for at least one user activity mode ("schedule") (see col. 7, Table 3.0; col. 6, l. 51-53):

- (c) determining at least one communication management directive ("DEVICES" to be used when attempting to connect to the subscriber, appearing in the "subscriber schedule" which is part of the "subscriber's service profile") to be associated with the user activity mode for each of a plurality of communication networks (see col. 7, Table 3.0; col. 6, l. 62-66; col. 6, Table 2.0);
- (d) storing in a database ("database 24") separate from the plurality of communication networks, the association between the communication management directive and the user activity mode (see col. 6, l. 46-47; col. 4, l. 55-66);
- (e) responsive to a communication being initiated to one of a plurality of user addresses ("... Once the call has been identified ... as being directed to a PCS subscriber ...") associated with the user and with one of the plurality of communication networks (see col. 11, l. 28-33; col. 4, l. 5-10):
- (f) determining a current activity mode (the applicable "time period(s)") for the user (see col. 12, l. 42-45; col. 7, Table 3.0);
- (g) retrieving the stored association (the entry corresponding to the applicable time period in the "subscriber schedule") for the current user activity mode (see col. 7, l. 18-19 and Table 3.0);
- (h) determining, responsive to the retrieved association ~~and responsive to a determination as to which user address was used in initiating the communication,~~ which communication management directive (the "devices(s)/location(s)" to be used when attempting to connect to the subscriber) applies to the initiated communication (see col. 7, l. 23-25; col. 7, Table 3.0);

(i) providing the applicable communication management directive to said one of the plurality of communication networks (see col. 12, l. 38-42).

2.1.2 Contrary to the finding in the appealed decision, the subject-matter of claim 1 thus differs from the disclosure of **D1** in that:

- determining which communication management directive applies to the initiated communication is further responsive to a determination as to which user address was used in initiating communication (see feature (h) above).

The subject-matter of claim 1 of the main request is therefore considered to be new over **D1** (Article 54(1) and (2) EPC).

2.1.3 The board considers that the technical effect associated with this distinguishing feature is that it provides more flexible handling of incoming calls because, in addition to the activity mode for the user, also the "user address" used in initiating the communication is considered.

2.1.4 The objective technical problem can thus be defined as "how to adapt the call system of D1 to the case of *multiple* communication subscriptions (i.e. user addresses) per user", in which using more than one subscription per user is taken as an *administrative* requirement (e.g. one privately owned and another one provided by the employer; see e.g. T 641/00, Reasons 13). This is, moreover, considered to be a problem with which a person skilled in the field of telecommunication networks would realistically have been tasked at the application's priority date.

2.1.5 However, the solution proposed in claim 1 cannot be considered to involve an inventive step (Article 56 EPC) for the following reasons:

For the skilled person, in view of the system of **D1** - with each subscription comprising a respective single personal number (PN) associated with a respective subscriber profile - it would have been straightforward to associate a *single* user with *multiple* subscriptions in the underlying database, each subscription comprising a respective single PN associated with a respective subscriber profile.

The choice of a communication management directive for the initiated communication would inevitably have relied on both the *user address* used in initiating the communication (i.e. relating to which subscriber profile is to be used) and the retrieved association (i.e. the corresponding entry in the "Subscriber Schedule" for the corresponding subscriber profile). The skilled person would therefore have arrived at the subject-matter of claim 1 without the involvement of any inventive skills.

2.1.6 The appellant formulated the objective technical problem as "how to modify D1 to allow a call to be handled not only based on the user activity mode but also on the address to which the call is initiated", and submitted that the skilled person starting from D1 would not have arrived at the claimed solution for the following reasons:

- Modifying D1 by assigning *multiple* personal numbers to each subscriber, each with its own subscriber profile and schedule, would not only have

drastically complicated the system of D1 but also defeated the entire purpose of having a *single* personal number. A caller would have been forced to choose between multiple personal numbers to reach the subscriber, which was the exact scenario that D1 expressly sought to avoid. It simply made no sense to modify D1 in this manner, and there was no benefit in doing so. In addition, D1 clearly contemplated handling of both *personal* and *business* correspondence. Thus, there was no reason to have two separate subscriptions per user.

- D1 provided no indication that the instructions in the subscriber profile/schedule were associated in any way with the communication network. Rather, Tables 2.0 and 3.0 of D1 appeared to be quite clear that the instructions are associated with the network address. The instructions in a subscriber service profile in D1 were tied to the network address, not to the communication network. There was nothing in D1 to indicate that the user address to which the communication was initiated, i.e. the personal number - especially the communication network with which the personal number was associated - had any associated instructions that were taken into consideration when determining how to handle the call, nor would there have been any reason to do so. In D1, the person making the call had no information as to which device they were calling, and, conversely, no distinction was made as to the intent of the call because everybody called the same personal number.

The appellant could not clarify at the oral proceedings before the board whether these arguments were to be understood to relate to a contestation of the

suitability of document D1 as closest prior art or the validity of the objective technical problem, as framed by the board in the framework of the problem-solution approach. Either way, these arguments do not persuade the board:

- 2.1.7 Even if **D1** revolves around a Personal Communication Service (PCS) using a *single* PN, it is apparent that, both in D1 and in the present application, the technical endeavour is to flexibly route an incoming call towards a specific end device in accordance with certain (subjective) user preferences. In the traditional paradigm, a user address (e.g. a telephone number) was linked to both a subscriber (e.g. the caller could look up which person or company appeared on the telephone book under that number) and an end device (e.g. the caller could foresee which telephone would ring better rather than who would actually pick it up). In contrast to this, both D1 and the application effectively decouple the user address used in initiating the communication (e.g. the telephone number dialed) from the end device actually receiving it, so that the caller does not necessarily know to which end device the call will eventually be routed.

In this context, the user address used in initiating the communication merely identifies the network which is responsible for managing such address (e.g. a landline or mobile operator) and the subscriber associated with it. Whether a user using the system of D1 would like to have just a *single* personal number or *more than one* is not related to the set of end devices actually receiving the calls and it does not respond to technical considerations but rather to purely administrative ones (see e.g. T 1989/12, Reasons 3.6). Indeed, under certain circumstances, a user might have

a legitimate interest in associating different user addresses to different roles (e.g. private vs public communications, a person working for two different companies, etc.) rather than using a single personal number. Furthermore, there is nothing in D1 precluding the association of the same individual or company with more than one personal number. As a matter of fact, once the administrative requirement is established (cf. T 641/00, Headnote 2), no technical modification is required in D1 to achieve this goal beyond the straightforward creation of more than one profile associated with the same subscriber, one for each personal number. At any rate, the claimed solution would have been even more obvious in view of the objective technical problem defined by the appellant.

2.1.8 Concerning the link between the user profile and the communication network, the "personal number" in D1 could be any existing number (see D1, col. 4, l. 5-10), and therefore, "personal numbers" will always be tied to different "communication networks", if only by virtue of the underlying numbering scheme used.

2.2 The **main request** is therefore not allowable under Articles 52(1) and 56 EPC.

3. FIRST AUXILIARY REQUEST

Claim 1 of the **first auxiliary request** differs from claim 1 of the main request essentially in that it further specifies that (board's underlining):

(j) the initiated communication comprises a telephone call;

- (k) a first and a second user address is associated with a first and a second telephone network respectively;
- (l) the communication management directive comprises a call management directive for processing the telephone call of the communication network corresponding to the user address to which the communication was initiated.

3.1 *Claim 1 - novelty and inventive step (Articles 52(1), 54 and 56 EPC)*

3.1.1 **D1** likewise discloses features (j) and (k) of present claim 1 (see col. 4, l. 25-26: "... a caller 14 dials the personal number (PN) of a PCS subscriber ..." in conjunction with Table 2.0, showing that different telephone numbers associated with the user are associated with different telephone networks identified by their prefixes).

3.1.2 Furthermore, feature (l) is also anticipated by **D1** (see e.g. Tables 2.0 and 3.0; the Subscriber Schedule and the Subscriber Number List are part of the subscriber profile associated with the subscriber's PN).

3.1.3 Hence, the subject-matter of claim 1 of the first auxiliary request does not involve an inventive step (Article 56 EPC) for the same reasons as set out in point 2.1 above.

3.1.4 The appellant argued that the additional features of claim 1 of the first auxiliary request made apparent that the claimed method used the existing infrastructure, avoiding the need to provide a specific processing module in order to achieve the redirection. Further, a skilled person would have had no reason to

modify D1 to employ two or more personal numbers per subscriber, in particular two personal telephone numbers that were each associated with a different telephone network. The personal communication system of D1 was specifically intended to work within the Public Switched Telephone Network (PSTN) and to take advantage of the network functions and services provided by the PSTN.

3.1.5 This is not convincing. Each telephone number in D1 is associated with a specific telephone network by virtue of the underlying numbering scheme, and the addition of features (j), (k) and (l) to the claimed method implies no particular limitation with respect to the specific *entity* intercepting the call to determine which communication management directive applies to the initiated communication.

3.2 The **first auxiliary request** is thus not allowable under Articles 52(1) and 56 EPC either.

4. SECOND AUXILIARY REQUEST

Claim 1 of the **second auxiliary request** comprises the following limiting features (board's outline and highlighting, indicating amendments vis-à-vis claim 1 of the second auxiliary request subject to the decision under appeal):

- (a) A computer-implemented method for handling incoming communications to a user, comprising:
- (b) ~~for at least one user activity mode:~~
- (m) receiving from the user, via a first communication network, a set of rules for selecting from a plurality of communication management directives for a plurality of second communication networks

and for a plurality of user addresses associated with the user,

- (p) wherein each rule comprises a set of parameters comprising; a user activity mode; and a user address from the plurality of user addresses that is used to initiate the communication;
- (c) ~~determining at least one communication management directive to be associated with the user activity mode for each of the plurality of second communication networks;~~
- (d) ~~storing in a database separate from the plurality of communication networks, the set of rules and the association between the communication management directive and the user activity mode;~~
- (e) responsive to a communication being initiated by an originator to one of the plurality of user addresses associated with the user via and with one of the second communication networks;
- (f) ~~determining a current activity mode for the user;~~
- (g) ~~retrieving the stored association for the current activity mode;~~
- (n) providing to the second communication network at least ~~of the~~ one rule from the set of rules to select ~~the~~ one of the plurality of communication management directives for the communication;
- (h) ~~responsive to the retrieved association, the at least one rule, and a determination of the user address to which the communication was initiated, determining which communication management directive applies to the communication; and~~
- (i) ~~providing the applicable communication management directive to the second communication network; and~~
- (o) routing the communication according to the selected communication management directive to a third communication network.

4.1 *Admittance into the appeal proceedings (Article 13(2) RPBA 2020)*

4.1.1 The claims of the **second auxiliary request** were filed after notification of the summons to oral proceedings before the board.

4.1.2 Hence, the admittance of the second auxiliary request is governed by Article 13(2) RPBA 2020, according to which any amendment to a party's appeal case is, in principle, not taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.

4.1.3 Claim 1 of the **second auxiliary request**, according to the appellant, "substantially mirrors" original independent claim 26 with the exception of:

- the recitation "plurality of user addresses associated with the user" in features (m) and (e), allegedly based on at least Fig. 17 and paragraphs [0090] to [0104] and [0255] of the application as filed,
- the addition of feature (p), finding support in original claim 29 and paragraph [0063],
- the recitation "at least one rule from the set of rules" in feature (e).

4.1.4 On the matter of "exceptional circumstances", the appellant argued that only with the board's preliminary opinion objections under Articles 123(2) and 84 EPC had been raised for the first time against the subject-matter of previous claim 25, and that the appellant's reply thereto represented the first and only opportunity for it to address these objections.

4.1.5 This argumentation fails to convince the board. Although the amendments in **features (m) and (n)** could arguably be understood as a direct reaction to the objections raised by the board under Articles 123(2) and 84 EPC, the further limitation introduced through the addition of **feature (p)**, concerning the specific format of each rule, is unrelated to those objections. Furthermore, **features (b) and (f) to (i)** and the reference to the database in **feature (d)**, which were present in all the independent claims subject to the appealed decision and which specified how the communication management directive is determined, have been deleted.

As a consequence, claim 1 of the second auxiliary request now merely requires "storing the set of rules" and "providing to the second communication network at least one rule from the set of rules to select one of the plurality of communication management directives" without further details as to how the communication management directive is actually determined. The removal of those limitations cannot be ascribed to the new objections raised by the board.

4.1.6 It follows that the appellant has not given cogent reasons for any "exceptional circumstances" with respect to all the amendments. Rather, subject-matter appears in this new claim request which was not present in any of the independent claims underlying the impugned decision. As a consequence, the second auxiliary request creates *de facto* a "fresh case" which would require a complete examination of the subject-matter from the ground up, and possibly a re-assessment of the prior-art, also detrimental to procedural economy.

- 4.2 For these reasons, the **second auxiliary request** was not admitted into the appeal proceedings.
5. As there is no allowable claim request, it follows that 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