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Datasheet for the decision of 29 November 2011

Case Number: T 1112/09 - 3.5.03

Application Number: 05250570.8

Publication Number: 1562357

IPC: H04M 3/42

Language of the proceedings: EN

Title of invention:
Methods and apparatus for data caching to improve name recognition in large namespaces

Applicant:
Avaya Inc.

Opponent:
-

Headword:
Voice dialling/AVAYA

Relevant legal provisions:
EPC Art. 54

Relevant legal provisions (EPC 1973):
-

Keyword:
"Novelty (all requests) - no"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1112/09 - 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 14 December 2011

Appellant: Avaya, Inc.
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Representative: Williams, David John
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 24 November 2008 refusing European patent application No. 05250570.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: A. S. Clelland
Members: T. Snell
M.-B. Tardo-Dino

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division refusing European patent application No. 05250570.8, with publication number EP-A-1562357.

The refusal was based on the ground, *inter alia*, that the subject-matter of independent claims 1 and 15 did not meet the requirement of inventive step pursuant to Article 52(1) in combination with Article 56 EPC with respect to the disclosure of the document WO-A-9816048 (D1). It was also stated that the objection of lack of inventive step could also be based on document WO-A-9965215 (D2).

II. The appellant filed a notice of appeal against the above decision. The appellant stated that it "appeal[ed] the decision in its entirety". New sets of claims of respectively a main request and first and second auxiliary requests were subsequently filed together with a statement of grounds of appeal.

Oral proceedings were conditionally requested.

III. In a communication accompanying a summons to oral proceedings scheduled to be held on 29 November 2011, the board gave a preliminary opinion in which, *inter alia*, an objection under Article 52(1) in combination with Article 54 EPC (ie lack of novelty) was raised against claim 1 of each request.

IV. In a letter dated 3 November 2011, the appellant withdrew its request for oral proceedings and requested

that "the EPO enter a decision on the file as it currently stands".

V. The appellant was informed by letter dated 15 November 2011 that the oral proceedings were cancelled.

VI. The board understands from the appellant's written submissions that the appellant requests that the impugned decision be set aside and a patent granted on the basis of claims 1-19 of the main request, or, alternatively, the claims of either the first or second auxiliary requests, all as filed with the letter dated 6 April 2009.

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

"A voice dialling system for a plurality of telephone sets comprising:
a central exchange connected to the plurality of telephone sets;
a directory (114) including entries for telephone numbers that may be called by users of the plurality of telephone sets;
the system characterized by:
a called party cache (118) stored for each user including entries the user is considered likely to call;
a voice dialling module (120) for receiving a voice input from a user and employing voice recognition to analyze the voice input, examining the directory (114) to identify candidates for matched entries from the directory matching the voice input, constructing a match list of recognition results that are candidates

for matches to the voice input with the entries on the list ranked by confidence (132), searching the user's called party cache and comparing the list of recognition results (132) with entries from the called party cache (118) to determine if entries in the list appear in the called party cache, the voice dialling module (120) assigning an increased likelihood of matching to a match list entry appearing in the called party cache (118); and reordering the match list (132) based on said comparing results."

VIII. Claim 1 of the appellant's **first auxiliary request** reads as follows:

"A voice dialling system for a plurality of telephone sets comprising:
a central exchange connected to the plurality of telephone sets;
a directory (114) including entries for telephone numbers that may be called by users of the plurality of telephone sets;
the system characterized by:
a called party cache (118) comprising a list of entries stored for each user including entries the user is considered likely to call;
a voice dialling module (120) for receiving a voice input from a user and employing voice recognition to analyze the voice input, examining the directory (114) to identify candidates for matched entries from the directory matching the voice input, constructing a match list of recognition results that are candidates for matches to the voice input with the entries on the list ranked by confidence (132), searching the user's called party cache list and comparing the list of

recognition results (132) with all the entries from the called party cache (118) to determine if entries in the list appear in the called party cache, the voice dialling module (120) assigning an increased likelihood of matching to any match list entry appearing in the called party cache (118); and reordering the match list (132) based on said comparing results."

IX. Claim 1 of the appellant's **second auxiliary request** reads as follows:

"A voice dialling system for a plurality of telephone sets comprising:
a central exchange connected to the plurality of telephone sets;
a directory (114) including entries for telephone numbers that may be called by users of the plurality of telephone sets;
the system characterized by:
a called party cache (118) comprising a subset of the entries previously successfully stored for each user;
a voice dialling module (120) for receiving a voice input from a user and employing voice recognition to analyze the voice input, examining the directory (114) to identify candidates for matched entries from the directory matching the voice input, constructing a match list of recognition results that are candidates for matches to the voice input with the entries on the list ranked by confidence (132), searching the user's called party cache and comparing the list of recognition results (132) with entries from the called party cache (118) to determine if entries in the list appear in the called party cache, the voice dialling module (120) assigning an increased likelihood of

matching to a match list entry appearing in the called party cache (118); reordering the match list (132) based on said comparing results;
presenting the reordered match list to the user until the user accepts a presented match as a valid recognition; and adding to the called party cache upon the valid recognition."

Reasons for the decision

1. *Procedural matters*

This decision is based on objections communicated to the appellant with the summons to oral proceedings. In response, the appellant withdrew the request for oral proceedings and requested "a decision on the file as it currently stands", from which the board understands that the appellant does not wish to comment on the board's objections, either orally or in writing. The decision therefore complies with Article 113(1) EPC.

2. *Novelty (Articles 52(1) and 54 EPC)*

2.1 The present invention concerns a voice[-activated] dialling system, ie one in which a user is prompted to speak a name and a voice recognition system interprets the user's voice input, following which an attempt is made to match the identified name to a directory entry. The present invention aims to increase the likelihood of a match by making use of the fact that a called party cache (ie a cache of parties previously called by a user) contains a list of entries that the user is likely to call.

2.2 *Claim 1 (main request)*

2.2.1 The board considers that document D2 represents the closest prior art.

2.2.2 Using the wording of claim 1, D2 discloses a voice dialling system (S) for a plurality of telephone sets (1, 2) comprising:
a central exchange connected to the plurality of telephone sets (implicit feature of the telephone network 3);
a directory ("banque de donnée 9 correspondant à un annuaire général des abonnés au réseau téléphonique public 3"; cf. page 10, lines 12-14) including entries for telephone numbers that may be called by users of the plurality of telephone sets;
the system further comprising:
a called party cache ("l'historique des appels 51"; cf. page 13, line 6) stored for each user including entries the user is considered likely to call (it is inherent that the call history contains entries that the user is "likely to call");
a voice dialling module (6) for receiving a voice input from a user and employing voice recognition to analyze the voice input (cf. page 11, lines 26-29), examining the directory to identify candidates for matched entries from the directory matching the voice input (page 11, lines 29-33), constructing a match list of recognition results that are candidates for matches to the voice input with the entries on the list ranked by confidence (page 12, lines 4-6 and 17-21), searching the users called party cache and comparing the list of recognition results with entries from the called party cache to determine if entries in the list appear in the

called party cache (cf. page 13, lines 1-6, whereby several candidates may be produced and compared with the call history database), the voice dialling module assigning an increased likelihood of matching to a match list entry appearing in the called party cache; and reordering the match list based on said comparing results (these last two features are considered as being disclosed by D2 at page 13, lines 5-6, according to which a subscriber appearing in the call history database is "suggested", ie elevated to the most likely candidate).

2.2.3 Hence, in the view of the board, all the features of claim 1 are disclosed in document D2. The subject-matter of claim 1 is therefore not new (Articles 52(1) and 54 EPC).

2.3 *Claim 1 (first auxiliary request)*

2.3.1 Claim 1 of the first auxiliary request differs from claim 1 of the main request in that the called party cache comprises a list of entries and that the list of recognition results is compared with all the entries from the called party cache, the voice dialling module assigning an increased likelihood of matching to any match list entry appearing in the called party cache (board's emphasis).

2.3.2 These added features are considered to be implied by the disclosure of D2 at page 13, lines 1-6, since the call history referred to in line 6 constitutes a cache comprising a list of previous calls all of which are implicitly compared with the several results of voice recognition referred to in lines 2-3 (which can also be

regarded as a list) in order to find a match. Moreover, the feature of "the voice dialling module assigning an increased likelihood of matching to any match list entry appearing in the called party cache" embraces the situation disclosed in D2 that several subscribers have the same name, one entry being found in the call history database which is then proposed as the called party (ie is given an increased likelihood of matching).

2.3.3 Hence, in the view of the board, the subject-matter of claim 1 is not new either (Articles 52(1) and 54 EPC).

2.4 *Claim 1 (second auxiliary request)*

2.4.1 Claim 1 of the second auxiliary request differs from claim 1 of the main request in that the wording "a called party cache (118) stored for each user including entries the user is considered likely to call" is replaced by "a called party cache comprising a subset of the entries previously successfully stored for each user", and that the wording "presenting the reordered match list to the user until the user accepts a presented match as a valid recognition; and adding to the called party cache upon the valid recognition" is added to the end of the claim.

2.4.2 These features are also considered as being disclosed by document D2, since in accordance with page 13, lines 5-6 an entry from the call history database may be suggested as the called party, which the user can accept by pressing an appropriate button to call the party (cf. page 13, lines 13-15), implicitly validating the result. This new call is then added to the call history database (cf. page 14, lines 10-14); hence the

feature "adding to the called party cache upon the valid recognition" is disclosed by D2.

2.4.3 Hence, the board concludes that the subject-matter of claim 1 is not new either (Articles 52(1) and 54 EPC).

2.5 The appellant has provided no arguments concerning the objection of lack of novelty with respect to document D2 in these appeal proceedings.

3. *Conclusion*

As claim 1 of each request is not allowable, each request as a whole is also not allowable. As there is no allowable request, it follows that the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Rauh A. S. Clelland