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Bezeichnung der Erfindung: Private automatic branch exchange (PABX) with
Title of invention: interception facility
Titre de l'invention :

Klassifikation / Classification / Classement : H04Q 3/54, H04M 3/50, H04Q 3/62

ENTSCHEIDUNG / DECISION

vom / of / du 13 March 1989

Anmelder / Applicant / Demandeur :

Patentinhaber / Proprietor of the patent /
Titulaire du brevet : K. Paulsson, B. Trok, V. Svedberg,
J. Andersson

Einsprechender / Opponent / Opposant : LM Ericsson

Stichwort / Headword / Référence :

EPÜ / EPC / CBE Article 56

Schlagwort / Keyword / Mot clé : Inventive step (no)

Leitsatz / Headnote / Sommaire

Case Number : T 13/88 - 3.5.1



D E C I S I O N
of the Technical Board of Appeal
of 13 March 1989

Appellant :
(Opponent)

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Decision under appeal :

Interlocutory decision of the Opposition Division of
the European Patent Office dated 11 November 1987
concerning maintenance of European patent
No. 0 026 165 in amended form.

Composition of the Board :

Chairman : P.K.J. van den Berg

Members : W. Riewald

E. Persson

Summary of Facts and Submissions

- I. European patent No. 0 026 165, incorporating independent Claim 1 and Claims 2 to 16 appended to Claim 1, was granted to the Respondents on 11 April 1984 in response to European patent application No. 80 850 135.7, filed on 17 September 1980 and claiming the priorities of two applications in Sweden dated 25 September 1979 and 18 February 1980, respectively.
- II. A notice of opposition was filed by the Appellant on 7 January 1985 by telex and confirmed by a letter received on 8 January 1985, requesting revocation of the patent on the grounds laid down in Article 100(a), (b) and (c) EPC. In support of his request, the Opponent referred to a number of prior art documents.
- III. After some exchange of letters and performance of oral proceedings on 7 July 1987, the Opposition Division maintained the patent in amended form by an interlocutory decision dated 11 November 1987.
- IV. On 23 December 1987, the Opponent lodged an appeal against the decision by telex and confirmed it by a letter, received on 2 January 1988. The appeal fee was paid on 30 December 1987.

A Statement of Grounds was filed on 11 March 1988.

The Appellant made the following requests:

1. Cancellation of the above mentioned decision and revocation of the opposed patent on the grounds of Article 100(a) EPC.

2. Oral proceedings to take place (Article 116(1) EPC).

He based his contention of lacking inventive step now mainly on the following documents already taken into account by the Opposition Division:

D6: SE application 78 02 725.7 as open for public inspection on 10 September 1979.

D7: GB-A-798 749

and the following document cited for the first time in the grounds of appeal:

D8: US-A-4 028 498.

V. In a communication, dated 19 September 1989, the Rapporteur made additional reference to the document

D0: JAPAN TELECOMMUNICATIONS REVIEW, volume 20, No. 1, January 1978, pages 11-16, Tokyo, JP. KOH ISHII et al.: "Message Service by Automatic Intercept System"

acknowledged as prior art in the patent as published, column 1, line 46 to column 2, line 4.

The Rapporteur voiced doubts that any inventive matter could be perceived in Claim 1 in view of the prior art disclosed in D0 and D6.

In respect of the dependent claims the Rapporteur referred to the negative statements in the examination proceedings (communication of 13 August 1982) and stated that neither he could perceive any inventive matter in these claims.

He declared document D8 likely to be disregarded under Article 114(2) EPC.

VI. The Patentees (Respondents) challenged the Rapporteur's view in a reply, dated 13 January 1989, and suggested to amend the main claim by adding to the characterising part further features. They requested a confirmation of the Opposition Division's decision with the completion of Claim 1 by the said features.

VII. This claim reads as follows:

"A private automatic branch exchange, called PABX, having a number of telephone sets or extensions connected to a central switching means and an operator's position, an intercept position or a similar position, wherein said PABX comprises a unit (μ D) arranged to detect traffic in and control functions in said PABX, means for causing intercept functions for said extensions, means for storing predetermined messages, and means for causing a subsequent call to an intercepted extension to be connected to said operator's position or the like, wherein:

- (a) said unit (μ D), including a microcomputer or the like, is connected directly or via a data transmission system to a computer equipment (HD) separated from or integrated into said PABX;
- (b) said computer equipment (HD) is connected to and associated with terminal means (A1) including a visual display unit and means for entering information relating to the intercept service into the computer equipment (HD);

- (c) said display unit is disposed at said operator's, intercept or similar position;
- (d) said display unit is arranged to present information stored in said computer equipment (HD);
- (e) for storing said information in said computer equipment (HD) from said terminal means (A1), an information of the telephone set's extension number and a predetermined code or the like are stored in said computer equipment (HD) and an information of the telephone set's extension number is stored in said unit (μ D);
- (f) that a subsequent internal or external call to said intercepted extension (A-extension) is detected by said unit (μ D), said unit then in a common manner and in case of need, causing a switching within said PABX so that said call is connected to or transferred to an operator's position;
- (g) said information in said unit (μ D) of the extension number is transferred to said computer equipment (HD) together with an information of operator's position or its display unit; and
- (h) causing said computer equipment (HD) to transfer to said display unit the stored information relating to said extension number,

c h a r a c t e r i z e d i n t h a t :

- (i) said information, including a code indicating that the interception service is desired and a code, which relates to a standard message preprogrammed in the

computer equipment (HD), is storable either from the telephone set or from said terminal means;

- (j) said means for storing said predetermined messages from said telephone set being activated by firstly initiating a call (raising a hand-set, pressing a call button, etc.) and secondly activating a predetermined code; and
- (k) for storing said information in said computer equipment (HD), used as a data acquisition means, from the telephone set (A-extension), the initiation/termination of interception information is provided via said telephone set and said unit (μ D) generates the telephone number information, which together with the interception information is passed to the interception computer equipment (HD);
- (l) that a subsequent call to a self-intercepted extension is detected by said unit (μ D), said unit then in a common manner and in case of need, causing a switching within said PABX so that said call is connected to or transferred to an operator's position;
- (m) said information in said unit (μ D) of the extension number is transferred to said computer equipment (HD) together with an information of operator's position or its display unit;
- (n) causing said computer equipment (HD) to transfer to said display unit the stored information relating to said self-intercepted extension number; and
- (o) that on a call from an operator, the unit (μ D) breaks the connection to a self-intercepted extension and

transfers the information in the computer equipment (HD) (GONE HOME; NOT TO BE DISTURBED etc.) relating to the intercepted extension to the terminal."

VIII. The Appellant's (Opponent's) submissions can be summarised as follows:

Document D6 is to be regarded as the most relevant prepublished prior art and corresponds not only to the precharacterising part of Claim 1 but also to major portions of the characterising features. Consequently, the only characterising feature remaining in a concise Claim 1 would be:

"said information is also storable from the telephone set."

However, this feature cannot be regarded to be inventive since document D7 clearly shows an automatic telephone exchange enabling the subscribers themselves to initiate and cancel interception of incoming calls for connection for example to a talking machine having certain messages.

The Rapporteur's opinion in respect of lacking inventive step stated in the communication of 19 September 1988 and based on a combined consideration of documents D0 and D6, is also agreed to.

IX.. The Respondents' (Patentees') submissions can be summarised as follows:

It is agreed that the most relevant prior art is represented by document D6 and that "major portions" of the characterising wording can be found in this document and that other features can be found in document D7. However, these features have to be seen in the unique

interrelation with the further features. The knowledge of some features taken out from its combination cannot affect the patentability in a negative manner.

The unique interrelation is to be seen in the fact that the activation function of the intercept equipment can be achieved not only from the terminal means (at an operator's intercept or similar position as in document D6) but also from the extension itself through the individual telephone apparatus of the extension.

This activation involves not only the switching information (incoming calls to an intercepted extension are to be connected to the operator's or intercept position) but also the storage of a standard message related to the intercepted extension. It is clear that document D7 discloses the transfer of an incoming call to another extension number and in this context the use of a switching information code only from the extension. No code is suggested for selecting one of a plurality of stored standard messages. Therefore, document D7 is regarded more or less irrelevant when the inventive step is to be determined.

In view of document D0, disclosing a fully automatic intercept system with coding of messages through the subscriber telephone apparatus for leaving messages to be delivered when a call is made and the extension is unattended, attention is drawn to some differences against the invention:

The present invention is intended for application in a private automatic branch exchange (PABX), where the presence of a telephonist is imperative to the function of the exchange, whereas document D0 gives a brief description of a telephone message service in a public

telephone network on the basis of an automatic intercept system and is intended to provide a substitute for intercept operators.

The known system aims at a different goal because it is designed for use in a large network, where central offices are connected to automatic intercept centres in order to provide an intercept service for calls placed on telephone numbers which had either been changed or temporarily disconnected. This entails a construction of the known system and a method in which its codes are utilised, processed or dealt with which are more complicated and cannot be compared with a PABX-system according to the present invention:

- The automatic intercept centres are built up from voice compilers and audio-magnetic drums, acting as talking machines.

- The automatic intercept centres cooperate with a memory-centralised office, and readout and updating of information is performed in the same way as that performed in a variable abbreviated dial service based on which the message service is designed.

- There are three codes used (Service Code; Function Code; Supplementary Information) and it is often necessary for the subscriber to make two telephone calls in order to activate the message service:

one call for updating the message in the supplementary information code and a further call in order to activate the message service.

Consequently, a combination of the knowledge of the two documents D0 and D6 will not lead one of normal skill in

this art to the use of codes in the system according to the present invention.

The advantages achieved by the invention, in particular the reduction in the amount of work needed to be carried out by the telephone operator, must be seen as a "long felt need" and the fact that the proposed modification, that does not require any extra equipment connected to the exchange, has not been previously proposed is an indication for the fact that the skilled person has so far been unable to think along the inventive line.

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC and is, therefore, admissible.
2. The subject-matter of Claim 1 is novel.
 - 2.1 There is general agreement between the parties that document D6 represents the closest prior art, which describes a private automatic branch exchange according to the precharacterising portion of Claim 1, viz a PABX comprising an intercept service providing the caller of an intercepted extension with information from an operator's position, an interceptor position or a similar position. This information contains messages for a potential caller concerning the intercepted extension and is stored in a specific interception computer equipment (HD) in association with the telephone number of the intercepted extension.

When a call is directed to an intercepted position, the following operations are automatically performed:

- (a) the call is redirected to the operator's position or the like by a control unit (μ D) controlling the PABX traffic;
- (b) the information related to the called extension and stored in the interceptor computer equipment (HD) is presented on a display unit disposed at the operator's or intercept position.

It is then up to the operator or any other person administering the intercept position to inform the caller in accordance with the displayed information.

According to this prior art, the intercept function and the storage of information are initiated by the telephonist (= operator) or a corresponding person according to a previous information from the person who wishes his extension to be intercepted. The operator's or similar position is provided to this effect with an appropriate terminal A1 or A2 that is directly connected to the interception computer equipment HD (see in particular document 6, Figure 1 and in the English version of the description, page 2, lines 20 to 27 and page 3, lines 2 to 7).

- 2.2 The features in the characterising portion of Claim 1 provide the PABX with means by which the information concerning the desire for interception services in combination with a message to any potential caller can also be transmitted from the telephone set of the extension in a coded form.

By this modification of the prior art (document D6) the operator or a similar person at the intercept position is relieved from the burden of initiating and terminating the state of interception of an extension. The answer to any

call directed to the intercepted extension remains, however, the duty of the telephonist.

3. The Board is satisfied that the document D0 provides a clear stimulation to such a modification.
- 3.1 Document D0 relates in its headline to a "Message Service by Automatic Intercept System" and the fact that it describes the application of such a system in a large network will not restrain the skilled person from looking in such a document for possible incitations to improve an intercept system with message service in a PABX-system according to document D6 as well, since the principle goals are identical: to provide a caller for an unattended extension with information about its proprietor.
- 3.2 It is true that the intercept system of document D0 is fully automatic: In accordance with the present Claim 1 the coded information requesting interception service with message storage is transmitted from the extension, but, unlike the claimed system, also the intercept operator is replaced by an automatic intercept centre from which the message is transmitted to any caller of the intercepted extension. To this effect, document D0 makes use of voice compilers and magnetic drums.

It is clear that in a PABX system, where the presence of a telephonist is imperative, such a full automation is not necessary. Having regard to the two clearly separated modes of operation of the system - initiation of the intercept service with message storage, and answering a call to an intercepted extension - it is a mere matter of discretion to apply the teaching of document D0 only insofar as the first mode is concerned, i.e. the transmission of the request signal for interception service together with message information from the

extension directly into the computer equipment without participation of an operator or telephonist.

Indeed, the coded information transfer from the extension to the computer equipment is the most noticeable aspect of document D0 and presents itself for a more general application, e.g. in a PABX system according to document D6. Therefore, feature (i) of Claim 1 complementing the system of document D6 by the said aspect does not imply an inventive step.

- 3.3 The further characterising features of Claim 1 can only be regarded as the natural consequence of the application of this non-inventive concept.

The main components for carrying out the necessary control functions and for storing the information are already present in the PABX-system that forms the starting point (document D6): the "unit" μD and the "interception computer equipment" HD, respectively. Therefore, the skilled person will not envisage the application of any other means used in the more complicated public system of document D0 (e.g. a "memory centralised office"). It suffices to enable the unit μD , which receives all the signals from any extension, to transmit the signals which are to be stored for the interception service to the computer equipment HD (feature (k) of Claim 1).

The necessary coded information to be transmitted from the extension (request for interception and message to be stored) can, of course, be transmitted by a single call (feature (j) of Claim 1). There is not the least reason for a skilled person to apply slavishly the system of making two calls as in the case of document D0 (sections 4.1 and 4.2).

The features (l) to (n) were newly incorporated in Claim 1 with letter of 13.01.89 in order to "disclose more clearly that in receipt of a subsequent call to a self-intercepted extension the inter-relationship between μ D and HD are the same as when the intercept function has been entered from the operator's terminal". This function was never in question, it being self-evident.

The feature (o) was originally disclosed in Claim 8 and specified in granted Claim 6. However, since it is common practice that also the operator can direct a call to each extension of his PABX system it is only a matter of course that, in such a case, he too should be informed about the state of self-interception and the reason for it by his terminal means.

Therefore, the newly incorporated features (l) to (o) are not suitable to change the factual situation of the case in respect of lack of patentability.

- 3.4 The Respondents' (Patentees') argument that the lack of compliance of the prior art with a "long felt need" cannot convince the Board. The Respondent relates in this context to document D7. He has commented on this document extensively in his letter of 30.06.88 and voiced the opinion that it is "more or less irrelevant", mainly because it does not provide "means for storing a plurality of predetermined messages" for selection by the user of an extension requesting interception. In fact, this selection possibility was disclosed in document D6 made available to the public not before 10.09.79, viz. a few days only before the first priority date (25.09.79) of the present patent.

The Respondents have consequently failed to give clear evidence of a really "long felt need" in respect of a selection from a plurality of predetermined messages.

- 3.5 As a consequence of the foregoing considerations, Claim 1 cannot be maintained, because its subject-matter lacks an inventive step.
4. The Claims 2 to 5 and 7 to 16 (Claim 6 deleted by the Patentees) are dependent claims and share the fate of Claim 1.
5. Since the Board is satisfied that the claimed subject-matter follows in an obvious way from an application of a teaching from document D0 to a PABX system according to document D6, there is no need to discuss the further documents in detail.
6. Since the first request of the Appellant for revocation of the patent is to be allowed, there is no need for oral proceedings to take place according to the Appellant's second request.

Order

For these reasons, it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:

S. Fabiani

P.K.J. van den Berg