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D E C I S I O N
of 12 January 2006

Case Number: T 1095/02 - 3.5.03

Application Number: 95925407.9

Publication Number: 0873608

IPC: H04B 17/00

Language of the proceedings: EN

Title of invention:

Logging recorder system for trunking radio

Patentee:

Swift Computers, Inc.

Opponent:

-

Headword:

Logging recorder/SWIFT

Relevant legal provisions:

EPC Art. 56, 123(2)

PCT Art. 34(2)(b)

PCT R. 70.2(c)

Keyword:

"Inventive step - (yes)"

Decisions cited:

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Catchword:

-



Case Number: T 1095/02 - 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 12 January 2006

Appellant:

Swift Computers, Inc.
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Representative:

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Decision under appeal:

Decision of the Examining Division of the
European Patent Office posted 22 May 2002
refusing European application No. 95925407.9
pursuant to Article 97(1) EPC.

Composition of the Board:

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

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division dated 22 May 2002, refusing European patent application No. 95 925 407.9 for the reason that the subject-matter of the independent claims of a main request did not involve an inventive step having regard to the disclosure of the following documents:

D1: US 5 392 449 A

D2: US 5 251 327 A.

Notice of appeal was filed on 29 July 2002 and the appeal fee paid. With the statement of grounds of appeal filed on 1 October 2002 the appellant withdrew all the existing requests and submitted new sets of claims 1 to 21 as a main request and 1 to 13 as an auxiliary request. The appellant requested that the appealed decision be cancelled in its entirety and that a patent be granted. An auxiliary request for oral proceedings was also made.

Two amended sets of claims 1 to 21 of first and second auxiliary requests were filed on 21 April 2005 to replace those of the existing auxiliary request.

II. The board issued an invitation to oral proceedings accompanied by a communication. In the communication it expressed the preliminary view that the subject-matter of the independent claims according to all the requests did not appear to involve an inventive step in view of the disclosure of D2. Further, the board raised the question of whether the drawings of the application constituted added subject-matter, the originally filed

PCT application having only contained figures 1 to 4 whereas the application as considered by the board contained figures 1 to 14 filed on 23 December 1997 at the entry into the regional phase.

III. With a letter dated 9 December 2005, in response to the communication, the appellant withdrew the claims of the existing requests and filed sets of claims 1 to 21 of new main and auxiliary requests.

IV. Claim 1 according to the main request reads as follows:

"A trunking radio system conversation logging recorder configured to log conversations in a trunking radio system having a plurality of channels that each carry a stream of segments from a plurality of unrelated conversations according to channel assignment information generated by a trunking controller, wherein each segment comprises a portion of a conversation corresponding to a single respective channel grant issued by the trunking controller, and wherein the trunking radio system conversation logging recorder comprises:

means (11) for monitoring the plurality of channels and outputting signals representative thereof;

an identification controller (19) configured to generate identification information corresponding to said segments based upon said channel assignment information, wherein said channel assignment information is received by the identification controller on a control channel from the trunking controller;

means (17) for associating each of said segments with said corresponding identification information;

means for storing said segments and said identification information on a non-volatile data storage medium (21, 25A, 25B);

means for searching said non-volatile data storage medium based on said identification information;

means for reconstructing a conversation by retrieving and combining appropriate ones of said segments based on said identification information to form a reconstructed conversation; and

means for replaying said reconstructed conversation."

Claim 16 is an independent method claim corresponding to claim 1.

Claim 1 according to the auxiliary request adds to claim 1 according to the main request the feature: "wherein the data packets each comprise:

a header (69) including said identification information; and

audio data (67),

wherein the means for storing said segments as data packets is also operable to store a duplicate of each header in an index file (83);"

Claim 16 is an independent method claim corresponding to claim 1.

V. At the end of oral proceedings the board announced its decision.

Reasons for the Decision

1. *Technological background*
 - 1.1 Trunking radio systems have been widely used in dispatch applications, e.g. police stations or emergency centres, since the mid 1990s. In a trunking radio system a limited number of channels is available for communication among a much higher number of subscriber stations. Requests for channel grant and channel assignment information are transmitted using a control channel. A trunking radio system controller automatically assigns a channel to a subscriber when the channel is used, i.e. when the subscriber actually speaks, the channel being released as soon as the subscriber stops speaking; a new channel, which may or may not be the same channel, is assigned when further speech occurs or the called station responds. Thus, a conversation involving two subscribers may involve successive different channels for different segments of the same conversation.
 - 1.2 A problem which arises in trunking radio systems is that of logging and recording conversations. Since a conversation may involve a number of channels it can only be recorded by recording the content of all channels and reassembling the conversation from these recordings. Such a procedure is wasteful of time and equipment. In accordance with the application in suit this problem is overcome by making use of the information contained in the control channel. As each segment of a conversation is stored the corresponding identification information from the control channel is

stored with it, enabling a conversation to be reconstructed automatically.

2. *Inventive step*

2.1 Main request

2.1.1 In the board's view D2 is the single most relevant prior art document.

2.1.2 D2 discloses a console for processing audio messages within a communication system, which may be either a trunked communication system or a conventional communication system, see the introduction at column 1, lines 12 and 31. D2 is concerned with a problem faced by an operator or dispatcher in monitoring communications within a particular communication group, namely that several communications may be addressed to the operator simultaneously, resulting in difficulty in ascertaining the content of an individual conversation. To overcome this problem the console includes a first in first out (FIFO) buffer 301, a message reconstruction buffer 302, a speaker 305 and a permanent storage element 306 (see figure 3 and column 3, lines 29 to 35). Signals originating from the various conversations entered at the inputs of the FIFO buffer are processed in the message reconstruction buffer to generate audio messages (see column 3, lines 35 to 55). These audio messages are stored in the permanent storage element using frames in which control information and user data are included (see column 3, line 66 to column 4, line 2). The control information relates to information internal to the console, e.g. input channel of FIFO and receiving time, necessary to

identify the audio message for play back. One selected audio message is directed to the speaker. If the selected audio message ends, another audio message which has been stored is played back. The play back function is performed in time sequence. The operator is thus enabled to listen to simultaneous conversations sequentially (see column 3, line 35 to column 4, line 61).

2.1.3 The subject-matter according to claim 1 differs from D2 in providing an identification controller configured to generate identification information corresponding to a segment which comprises a portion of a conversation corresponding to a single channel grant issued by the trunking controller in a trunking radio system based upon a channel assignment information, this information being generated by the trunking controller and received by the identification controller on a control channel, and means for associating each of the segments with the corresponding identification information. The segments together with the associated identification are stored on a non-volatile storage medium. Searching for a predetermined conversation is based on the identification information.

2.1.4 Thus, in accordance with the claim, channel assignment information generated and used in a trunking radio system is used for identification. The claimed logging recorder thus uses external information received on a control channel for identification, whereas D2 uses internal information generated in the console for identification purposes. D2 does not discuss or disclose a solution to the problem of effectively storing a plurality of conversations and enabling

playback based on search criteria at a later time. Nor does D2 suggest storing conversation segments with the associated channel assignment information received on the control channel.

2.1.5 D1 discloses resource management in a trunked communication system using an intelligent repeater in which communication activity is logged. The repeater includes a receiver and a processor. Control information is extracted in the processor from received signals (see column 2, lines 30 to 64). The extracted control information may contain the communication unit's individual and group identifications and type of service requested (see column 2, lines 65 to 67). To log call activity, key statistics deduced from the extracted control information are stored. D1 does not suggest logging the content of conversations or conversation segments. The skilled person, faced with the problem of effectively storing individual conversations for retrieval and play back at a later time, would therefore not consider D1. Moreover, D1 does not teach that control information can be associated with conversation segments.

2.1.6 Although in the board's view the skilled person would have no reason to combine the teaching of D1 with that of D2, if for the sake of argument D2 and D1 were combined, the skilled person would start from D2, which is considered as being the closest prior art document. D2 discloses buffering conversation together with internal control information (see point 2.1.2). D1 discloses storing key statistics (see point 2.1.5). Combining D2 and D1 would thus result in buffering conversation together with internal information and

storing key statistics additionally. D2 does not suggest buffering conversations in a segmented form or using control information received on a control channel for any reason.

2.1.7 Since the subject-matter of independent claim 16 corresponds *mutatis mutandis* to the subject-matter of claim 1, the same arguments apply.

2.1.8 Thus, the subject-matter of each of independent claims 1 and 16 involves an inventive step having regard to the disclosure of D2 and/ or D1.

2.2 Auxiliary request

The independent claims of the main request having been found to involve an inventive step, the auxiliary request has not been considered.

3. *Added subject-matter*

The application originates from an international application which was filed with 4 drawings, although the originally filed description mentions 14 drawings. The preliminary international examination report is based on the description and claims as originally filed and on 14 drawings filed with the demand for international preliminary examination. Thus, the 14 drawings first were filed as an amendment according to Article 34(2)(b) PCT. No objections according to Rule 70.2 (c) PCT (amendment beyond the disclosure in the application as filed) were raised in the preliminary international examination report.

The same 14 drawings were again filed on 23 December 1997 at the entry into the regional phase before the EPO.

The question of whether the drawings on file comply with Article 123(2) EPC (added subject-matter) has so far not been considered by the department of first instance. In order to preserve two instances, the board considers it appropriate in the circumstances to remit the case to the department of first instance for consideration of this point.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:

D. Magliano

A. S. Clelland