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**Datasheet for the decision
of 30 May 2012**

Case Number: T 1366/08 - 3.5.06

Application Number: 02745460.2

Publication Number: 1407340

IPC: G06F 1/00, H04L 9/32

Language of the proceedings: EN

Title of invention:

Method and system for verifying electronic signatures and
electronic signature device

Applicant:

Telefonaktiebolaget LM Ericsson (publ)

Opponent:

-

Headword:

Electronic signature/ERICSSON

Relevant legal provisions:

-

Relevant legal provisions (EPC 1973):

EPC Art. 84, 56

Keyword:

"Clarity (no)"

"Inventive step (no)"

Decisions cited:

-

Catchword:

-



Case Number: T 1366/08 - 3.5.06

D E C I S I O N
of the Technical Board of Appeal 3.5.06
of 30 May 2012

Appellant: Telefonaktiebolaget LM Ericsson (publ)
(Applicant) SE-164 83 Stockholm (SE)

Representative: Barrett, Peter Andrew John
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 27 February 2008
refusing European patent application
No. 02745460.2 pursuant to Article 97(1)
EPC 1973.

Composition of the Board:

Chairman: D. H. Rees
Members: S. Krischer
W. Sekretaruk

Summary of Facts and Submissions

- I. The appeal is directed against the decision of the examining division, posted on 27 February 2008, to refuse the application 02745460.
The reason for the refusal was lack of inventive step, in violation of Article 56 EPC 1973. The following document was mentioned:
- D1 WO99/49404 A1 30 September 1999.
- II. A notice of appeal was received on 25 April 2008. The fee was received the same day. A statement of the grounds of appeal was received on 23 June 2008. Oral proceedings were conditionally requested. The appellant further requested the reimbursement of the appeal fee because of an alleged substantial procedural violation by the examining division.
- III. The board issued a summons to attend oral proceedings, raising objections with respect to clarity and inventive step. The appellant informed the board that it would not be represented at the oral proceedings, but did not respond to the objections raised in the summons.
- IV. Oral proceedings were held on 30 May 2012 in the absence of the representative, as announced. At their end, the chairman announced the board's decision.
- V. The appellant requests to set the decision aside and to grant a patent on the basis of a main request (claims 1-46) or an auxiliary request (claims 1-46) both filed with the grounds of appeal.
The further text on file is: description pages 1, 11-18

as published; pages 2AII, 4AII, 6AII, 7AII, 9AII, 10AII as filed by fax on 17 October 2003; pages 3AIII, 5AIII, 8AIII as filed by fax on 1 November 2004; drawing sheets 1-5 as published.

VI. Claim 1 of the main request reads as follows:

"1. A method for verifying electronic signatures, the method having a signatory with a terminal device (MT), a content provider (CP), a signature verifier, and a payment provider (MCP) for the signatory, characterized in that the method comprises the steps of

- the content provider (CP) presenting to the signatory data files containing unstructured electronic data presenting a contract in the form of one or a combination of at least two of the elements of voice, still picture, moving picture and unstructured text,
- the signatory accepting the contract by signing said data files by applying electronic signature over unstructured data files with his terminal device (MT) for verification by the signature verifier,
- the signatory returning the signed data files to the content provider (CP),
- the content provider (CP) sending the signed data files together with the charged amount in structured machine-readable format to the payment provider (MCP),
- the payment provider (MCP) storing the signed data files and redacting the charged amount from the account of the user, and
- the signature verifier verifying the signature for checking the validity of the contract and signatory identity."

VII. Claim 1 of the auxiliary request reads as follows:

"1. A method for conducting electronic commerce, the method involving a terminal device (MT) in the possession of a signatory, a content provider (CP), a signature verifier, and a payment provider (MCP) for the signatory, all of which are connected to a communication network, characterized in that the method comprises the steps of

- the content provider (CP) presenting to the signatory data files containing unstructured electronic data presenting a contract in the form of one or a combination of at least two of the elements of voice, still picture, moving picture and unstructured text,
- the signatory accepting the contract by signing said data files by applying electronic signature over unstructured data files with his terminal device (MT) for verification by the signature verifier,
- the signatory returning the signed data files to the content provider (CP),
- the content provider (CP) sending the signed data files together with the charged amount in structured machine-readable format to the payment provider (MCP),
- the payment provider (MCP) storing the signed data files and redacting the charged amount from the account of the user, and
- the signature verifier verifying the signature for checking the validity of the contract and signatory identity."

Reasons for the Decision

1. *Clarity*

1.1 Claim 1 of both requests contains the words "unstructured" and "structured" in the following expressions:

- "data files containing unstructured electronic data presenting a contract in the form of ... voice, still picture, moving picture and unstructured text" (lines 5-7 as filed);
- "accepting the contract ... by applying electronic signature over unstructured data files" (lines 8, 9);
- "the charged amount in structured machine-readable format" (lines 12, 13).

This means that the contract data is considered "unstructured" whereas the charged amount data is "structured". This means also that voice, still picture, moving picture and "unstructured text" are considered "unstructured".

1.2 However, all electronic data has a structure and is contained in a structure: firstly during runtime of a program in a *data structure* (in the main memory), and secondly as a file on a hard disk or during file transfer in a *file format*. Thus "unstructured data", even if it is a term used in the art, does not have any clear definition.

1.3 The description gives as examples of "structured data" WTLS, HTML or XML (page 1, line 24), and as examples for "unstructured data" audio, visual or unstructured

text (line 33; see also claim 1, lines 5-7). However also audio, visual and text data have their structure, e.g. the mp3, the JPEG and the ASCII formats.

1.4 Therefore, claim 1 of both requests is unclear (Article 84 EPC 1973). For this reason alone, the appeal must be dismissed. However, the board will also consider the question of the inventive step.

1.5 The board further notes that to the extent that it can derive any meaning for the use of the term "unstructured" from the application as a whole, it is simply that no processing of the content of such data is contemplated in the described method, beyond presenting it to a human user. This is the interpretation which will be applied in what follows.

2. *Inventiveness*

2.1 Main request

2.1.1 The board considers it a matter of *notorious common knowledge* to conduct business by presenting a contract written on paper to a customer, have the customer sign it to indicate agreement, and to store the signed contract as evidence of the customer's acceptance of the contract. It is also commonplace for the customer to sign a payment order ("cheque") and give it to the seller, who in turn presents it to the customer's bank as evidence that payment is due to the seller. Comparing the subject-matter of present claim 1 to this notorious common knowledge, there are two differences:

- (1) the scheme is adapted to modern technology in the form of electronic commerce;

- (2) instead of having the customer sign a separate cheque, a copy of the contract is presented to the bank as evidence that the payment is due.

Thus, two separate, partial, problems can be formulated:

- (1) how to implement this business scheme on a computer network; and
- (2) how to provide to a bank an alternate form of evidence that payment is due.

As to the second problem and its solution, it is purely a business or legal question, so that features relating to its solution do not contribute to the technical character of the claim, and therefore also cannot contribute to an inventive step, following the case law of the Boards of Appeal, which the appellant has acknowledged.

The solution proposed to the first problem is immediately obvious - formulating the contract as a data file which can be presented to the customer in an understandable fashion (it could hardly be otherwise) and using an electronic signature instead of one in ink (the name itself suggests the solution). *Posing* the first problem also must be considered obvious, the wish to adapt common methods of commerce to a computer network environment cannot be considered inventive.

Thus, claim 1 of the main request is not inventive.

- 2.1.2 The appellant has argued that it is inventive in particular to use "unstructured data". As discussed above, the board considers this expression to be unclear, but insofar as it means that no evaluation of

the content of the contract is carried out by a computer, but it is only presented to the various parties (the customer, the bank), the board is unconvinced. The mere failure to automate some part of a process, other parts of which are being automated, is not a persuasive indication of inventiveness. The degree to which a process is to be automated is a mere design choice as long as that automation does not require the inventive solution of any technical problem. Equally, the choice of formulating the request for payment in such a way that the sum requested can be processed by a computer is also an obvious design choice.

- 2.1.3 In the appealed decision, claim 1 was refused for lack of inventive step (Article 56 EPC 1973). This claim is identical to claim 1 of the present main request.

In section 1. of the Reasons for the Decision, it is said that "[the claims] contain no subject-matter not falling under the exclusions of A52(2)(c) EPC 1973 which would contribute to the state of the art". The board takes this to mean that the features which contribute to the technical character of the claim do not make any contribution to the prior art.

In section 1.1, the business activity of each of the six steps of claim 1 is indicated, deprived of any technical feature. The board interprets these six activity steps as the examining division's understanding of the underlying business scheme of the claim.

In section 1.2, it is stated that "the fact that here the contract is in electronic form and not in paper

form does not lend to the activities performed anything in the nature of a technical problem being solved". Further, that "electronic data and electronic signatures appear to be used here for their normal purposes and in the usual manner".

2.1.4 In the grounds of appeal, it is stated in the section entitled "Article 52(1) and (2)" that "this method clearly requires the use of technical means" (page 2, paragraph 3). The board agrees with this statement. But it seems that the examining division was also of this opinion since it did not object that the claim was excluded from patentability according to Articles 52(2) and (3) EPC 1973. It appears to the board that the examining division simply wanted to point out that the claim consisted to a large extent of the business scheme mentioned above.

2.1.5 In the section entitled "Article 56" in the grounds of appeal, the following features are argued to be technical, and therefore to be taken into account when considering inventive step (see page 3, first paragraph):

- the application of the electronic signature to unstructured data;
- the addition of structured, machine readable data to the signed unstructured data, and
- the verification of the electronic signature.

As said above, the distinction between unstructured and structured data is unclear. To the extent that it is understood, it simply means that it is not contemplated to further process the unstructured data. This statement of intention has no limiting effect on these

features. Therefore, it cannot be taken into consideration by the board. This holds especially for the second feature in the list above.

2.1.6 As to the first feature in the list, i.e. the application of the electronic signature to a contract, the board firstly notes that, over and above the argument put forward at section 2.1.1 above, D1 in fact discloses this feature, see page 5, lines 17-20 which discusses the "user's digital signature" of "an invoice or purchase order" which is sent to the merchant. This passage also contradicts the statement in the grounds, page 3, paragraph 2, line 5 that "there is no disclosure in D1 that the user signs anything other than the payment instruction, i.e. the invoice". Further there is no technical difference between the "contract" of the present application and the "invoice" or "payment order" of D1 - in D1 too, there is no constraint on the structure of the invoice imposed by any automatic processing of its content.

2.1.7 Furthermore, the board agrees with the examining division that "electronic signatures appear to be used here for their normal purposes and in the usual manner" (decision, section 1.2). The board considers the principle of electronically signing a file to be independent of the content type of the file. Whether the data in the file is more or less structured, and whether it is of type audio, image, video or text, is not relevant for the electronic signature.

2.1.8 The board also agrees with the examining division that "the fact that here the contract is in electronic form and not in paper form does not lend to the activities performed anything in the nature of a technical problem

being solved" (still section 1.2). The selection of the audio, image or video content type *for a purchase contract* does not contribute to the technical character of the invention, and thus cannot contribute to the presence of an inventive step. This is because the selection of a technical representation for a non-technical content does not solve a technical problem, but serves a non-technical aim.

Furthermore, the idea to use content types other than text in e-commerce is disclosed in D1, page 5, lines 4, 6 and page 9, line 6 disclosing "audible invoices" and on page 10, lines 1-5 disclosing an audio recording indicating specific terms in addition to a purchase order.

2.1.9 As to the third feature in the list of the appellant, i.e. the verification of the electronic signature, the board is of the opinion that the verification of an electronic signature is a routine measure that is obvious when an electronic signature is used. The main purpose of an electronic signature is the possibility of verifying it. It is furthermore disclosed in D1 (page 5, line 21).

2.1.10 Thus, the appellant's arguments do not affect the board's conclusion that claim 1 of the main request lacks an inventive step.

2.2 Auxiliary request

2.2.1 In addition to the features of claim 1 of the main request, claim 1 of the auxiliary request mentions the non-technical aim of the method (i.e. conducting electronic commerce) and specifies that the devices

involved in the method are connected to a communication network.

However, the latter was already implicitly present in the main request, since the devices are sending data between them. Thus, this claim does not contain any technical feature in addition to the main request.

2.2.2 In the grounds of appeal, no further arguments relating to inventive step of the first auxiliary request are given.

2.2.3 Therefore, claim 1 of the auxiliary request is not inventive, in violation of Article 56 EPC 1973.

3. *Substantial procedural violation*

3.1 In the grounds of appeal, a re-imbusement of the appeal fee is requested. The examining division is alleged to have violated the right to be heard (Article 113(1) EPC 1973) since it had not taken into account the arguments given in applicant's letter of reply dated 26 November 2007, in particular arguments concerning the technical nature of "applying an electronic signature over unstructured data files" (page 2) and of the terms "structured" and "unstructured" (page 3).

3.2 However, these arguments were used to show that the concerned features had a technical character, and that the claims were not excluded under Article 52(2) EPC 1973 (see page 4, first paragraph, last sentence of the letter; see also the grounds, page 4, last paragraph, line 6-9: "Although the interpretation ... when assessing whether or not the claimed subject matter is excluded from patentability under

Article 52(2)(c), there is no indication in the decision ...").

3.3 But the claims were not objected to by the examining division as being excluded under Article 52(2) and (3) EPC 1973, and the concerned features were not objected to for lack of technical character. For example, the features were not listed in the underlying business scheme of section 1.1 of the decision. So, the examining division was not obliged to answer these arguments, since it apparently agreed with the applicant on that point.

3.4 The board does therefore not recognise a substantial procedural violation.

3.5 Further, according to Rule 103(1)(a) EPC 1973, one of the conditions for reimbursement of the appeal fee is that the appeal be allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

B. Atienza Vivancos

D. H. Rees