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Datasheet for the decision of 12 December 2022

Case Number: T 1158/17 - 3.5.01

Application Number: 09783613.4

Publication Number: 2335195

IPC: G06Q10/00, G06Q50/00

Language of the proceedings: EN

Title of invention:
ELECTRONIC BUSINESS POSTAL SYSTEM

Applicant:
Escher Group (IRL) Limited

Headword:
Routing electronic message/ESCHER GROUP

Relevant legal provisions:
EPC Art. 56, 111(1)
RPBA 2020 Art. 11, 13(1)

Keyword:
Technical contribution - routing an electronic message and ensuring its integrity (yes - no mere automation of an administrative scheme)
Remittal to the department of first instance (yes)

Decisions cited:
T 0641/00, T 1082/13

Catchword:
A similarity [of the claimed subject-matter] to a business or administrative solution is not a sufficient reason for denying a technical contribution of a claim feature applied in a technical context and involving technical considerations. Put another way, technical considerations in the technical context cannot be negated merely on the basis of a non-technical analogy.

... The analogy to a post office, essentially invoked by the contested decision, is used in technical literature in order to describe functionality of the transport layer (layer 4) of the OSI model. However, in the Board's view, it would not be sound to assert, only based on this analogy, that communication protocols implementing this layer's functionality lack technical character.

(See points 3.2.7 and 3.2.8 of the reasons).

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Case Number: T 1158/17 - 3.5.01

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 12 December 2022

Appellant: (Applicant)	Escher Group (IRL) Limited Hambleden House 19-26 Pembroke Street Lower Dublin 2 D02WV96 (IE)
Representative:	Marks & Clerk LLP 15 Fetter Lane London EC4A 1BW (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 5 December 2016 refusing European patent application No. 09783613.4 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	M. Höhn
Members:	W. Zubrzycki
	C. Schmidt

Summary of Facts and Submissions

I. This is an appeal against the decision of the examining division to refuse European patent application No. 09783613.4 for lack of inventive step (Article 56 EPC).

II. The contested decision stated that the subject-matter of claim 1 of the auxiliary request then on file was an obvious implementation of a non-technical administrative postal scheme on a notorious networked computer system or the technical infrastructure of one of D1 (WO2007/073943 A1) and D2 (US6473407 B1); the claimed components were abstract entities having roles in this administrative scheme and, therefore, lacked technical character. The contested decision did not discuss the disclosure of D1 and D2 in detail.

The examining division did not admit the main request, filed during the oral proceedings, into the proceedings under Rule 137(3) EPC. They found that this request *prima facie* did not overcome objections under Article 56 EPC raised earlier in the procedure.

III. In the statement setting out the grounds of appeal, the appellant requested that the decision be set aside and a patent be granted on the basis of the main request, or alternatively first or second auxiliary requests, filed therewith. The appellant also requested oral proceedings should the Board be minded not to grant any of those requests in the written proceedings.

IV. In a communication pursuant to Rule 100(2) EPC, the Board raised an objection of lack of clarity and added subject-matter (Articles 84 and 123(2) EPC) for dependent claim 7 of the main request. The Board

informed the appellant that if this objection were to be overcome, it intended to remit the case to the examining division for further prosecution on the basis of the main request.

V. With letter dated 29 October 2021 the appellant filed a new main request. Furthermore, the appellant withdrew its auxiliary request for oral proceedings subject to the Board of Appeal either granting the new main request or remitting the case to the examining division for further prosecution of the new main request.

VI. Claim 1 of the main request reads:

"*An electronic business postal system (100) comprising:*

a closed-access network of secure system nodes (102);

a plurality of access portals (104), each access portal (104) being associated with one or more of the system nodes (102) and with an authentication mechanism to authenticate users and configured to provide to users, authenticated by the corresponding authentication mechanism to set up postal system accounts with postal system electronic delivery addresses, an access point to the network (100) to send and receive electronic business mailings that include postal system electronic delivery addresses and/or physical delivery addresses;

a plurality of message servers (108), each message server (108) being associated with one or more access portals (104) and configured to process the electronic business mailings received from the associated access portals (104) to produce messages, to assign identifiers to the messages that are unique over the system, and to provide the messages to associated system nodes (102), and further configured to process the messages received from the associated system nodes

(102) and to provide the corresponding electronic business mailings to the associated access portals (104);

a delivery subsystem (110) configured to direct the messages from the system nodes (102) associated with the sending access portals (104) to the system nodes (102) associated with the recipient access portals (104), the delivery subsystem (110) including one or more address registries (111) that associate respective postal system electronic delivery addresses and/or physical delivery addresses with system nodes (102) and/or access portals (104); and

a clearance subsystem (114) configured to operate at the system nodes (102) to check the integrity of the received messages and the delivery of the messages and to allow the further delivery of the messages that pass both integrity checks to the access portals (104),

whereby the system nodes (102) comprise an originating system node adapted to send the message and a destination system node adapted to receive the message, and,

in case the message passes both integrity checks at the destination system node, the destination system node is adapted to send an acknowledgement of the receipt of the message to the originating system node and the originating system node is adapted to check the integrity of the message delivery based on the acknowledgement, and,

in case the message does not pass the integrity check of the message delivery at the originating system node, the originating system node is adapted to direct the destination system node to discard the received message and to resend the message."

VII. Claim 10 of the main request reads:

"A method of providing electronic business mailings

comprising

authenticating a user, through an access portal of an electronic business postal system, to set up a postal system account with a postal system electronic delivery address and receiving an electronic business mailing by said access portal for delivery over the system with a closed-access network of secure system nodes, the electronic business mailing including a postal system electronic delivery address and/or a physical delivery address;

processing the electronic business mailing into a message for routing among the secure system nodes and assigning an identifier to the message, said identifier being unique over the system;

determining the postal system electronic delivery address for the message, directly from the electronic business mailing or through address registries that associate the physical delivery addresses of the electronic business mailings with postal system electronic delivery addresses;

determining a destination system node associated with the postal system electronic delivery address and providing routing information in the message,

providing the message to an originating system node associated with the first access portal and routing the message through the network of secure system nodes to the destination system node associated with the postal system electronic delivery address;

processing the messages at one or more of the system nodes and at a destination system node to determine the integrity of the message and, based on the assigned identifier, of the message delivery; and

in case the message does not pass at least one of the integrity checks at the destination system node, discarding the message and notifying the originating system node,

in case the message passes both integrity checks at the destination system node, sending, by the destination system node, an acknowledgement of the receipt of the message to the originating system node and checking, by the originating system node, the integrity of the message delivery based on the acknowledgement, and,

in case the message does not pass the integrity check of the message delivery at the originating system node, directing, by the originating system node, the destination system node to discard the received message and resending the message by the originating system node;

at the destination system node processing the message that has passed the integrity checks and providing the corresponding electronic business mailing to the associated access portal;

retaining the electronic business mailing for access by an authenticated recipient."

VIII. The appellant's arguments can be summarised as follows:

As stated in the original application at page 5, third paragraph, the clearance subsystem assured that each message was delivered, delivered intact and delivered only once. Those were technical effects. Performing the message integrity checks at the originating system node and at the destination system nodes implemented a dual control principle while verifying the integrity of the message delivery.

Neither D1 nor D2 disclosed that message integrity checks were performed at the originating and destination system nodes. D1 taught to check message integrity at a central control unit. Compared to the system of D1, the claimed invention produced the

technical effect of using less hardware and performing fewer processing steps.

The contested decision did not consider all aspects of the claimed subject-matter and the appellant had, therefore, not been heard sufficiently.

In the first instance proceedings, the appellant argued that routing a message over a secure system of nodes was a technical effect lending technical character to the claimed subject-matter (see decision, point 29).

Reasons for the Decision

1. Admittance of the main request

1.1 The Board admits the main request filed with the letter of 29 October 2021 into the proceedings under Article 13(1) RPBA 2020.

1.2 This request is a *bona fide* attempt to address objections raised by the Board in the communication pursuant to Rule 100(2) EPC against dependent claim 7 of the - then pending - main request filed with the statement setting out the grounds of appeal.

1.3 The current main request essentially corresponds to the main request which was not admitted into the proceedings by the examining division because it was deemed to lack inventive step and therefore was considered to be *prima facie* not allowable. However, the Board does not agree with this assessment for the reasons set out below. Therefore, the non-admittance of the previous main request by the examining division does not prejudice the decision to admit the current main request. Finally, apart from the aforementioned

objection concerning dependent claim 7, the new main request does not give rise to any new objections and does not present the Board with any new complex issues.

2. The invention

2.1 The invention concerns a system for secure delivery of business mailings, for example contracts or invoices (see original application, page 1, paragraph 2).

2.2 Looking at Figure 1, the independent claims of the main request are directed to a system (100) comprising multiple access portals (104) enabling authenticated users to send and receive electronic business mailings (page 5, paragraph 1). Although not claimed, the application explains that a user connects to the access portal using a PC or a phone and, once authenticated, can send and retrieve electronic business mailings (page 6, third paragraph and paragraph bridging pages 6 and 7).

Each access portal is associated with a message server (108), which produces a uniquely identifiable message from an electronic business mailing sent at the portal (page 5, second paragraph), and with a secure system node (102). A delivery subsystem (110) routes a message created by the message server, associated with the sender portal, to the recipient access portal over the system nodes (page 5, second paragraph and page 8, penultimate paragraph).

Furthermore, a secure system node associated with the recipient portal ("a destination system node" in the claims) checks the integrity of a received message and the integrity of its delivery. If the received message passes both checks, the destination system node sends

an acknowledgement to a secure system node associated with the sender portal ("an originating system node" - see paragraph bridging pages 8 and 9 and third paragraph on page 9). Having received the acknowledgement, the originating system node also checks the integrity of the message delivery and, if the check fails, it instructs the destination node to discard the message. Then, the originating system node sends the original message again. If the received message passes the checks at both nodes, it is delivered to the recipient's access portal (page 9, third paragraph).

2.3 Again although not claimed, the application discloses that the message servers include a checksum calculated on the message and a monotonically increasing sequence number, for example a time stamp, in each message's header (page 7, second and third paragraphs). The checksum is used to verify whether the content of the received message has changed ("to check the integrity of the received messages" in the claims) and the sequence numbers are used to verify whether the message is expected in the delivery sequence ("to check the integrity of the messages delivery" - see page 9, third paragraph and page 8, last paragraph).

3. Allowability of the main request

3.1 The Board is satisfied that the amendments made to the main request during the appeal proceedings do not contain added subject-matter and do not give rise to new clarity issues. The objections against dependent claim 7 were overcome by an amendment.

3.2 Article 56 EPC, claim 1

3.2.1 Claim 1 of the current main request defines the same system components as claim 1 of the auxiliary request refused by the examining division. Thus, the technicality assessment given by the examining division also applies to the current main request. The Board, however, does not agree with the examining division's conclusion that the features defining these components lack technicality and cannot support inventive step.

3.2.2 The contested decision stated that claim 1 of the auxiliary request defined a non-technical administrative postal scheme "*comprising the abstract administrative steps and the activity roles represented by abstract functionality entities and users*" (decision, point 17, third paragraph). The contested decision argued that, at the high level of abstraction at which they were claimed and disclosed in the application, the claimed components modelled the roles of groups of persons interacting within the framework of the administrative postal scheme (point 17, last paragraph). Moreover, the application did not set out what particular hardware devices were used and it was, therefore, clear that the application's subject-matter was the administrative postal scheme and not its technical implementation (point 18, two last paragraphs and point 33).

The contested decision also held that the non-technical administrative postal scheme included the access portals, delivery subsystem, message servers, the plurality of system nodes and the steps these components carried out (point 17). The technical features were limited to the provision of computing devices programmed to fulfill those components'

functions, the network connecting the computing devices and electronic encoding and encrypting of messages (point 18).

While claim 1 of the refused auxiliary request did not contain the last three features of the present main request, the decision indicated, in connection with the non-admitted main request, that these features per se also related to an administrative matter (point 14).

Applying the COMVIK approach (T 641/00 - *Two identities/COMVIK*), the contested decision held that the administrative postal scheme was given to the technically skilled person as the requirement specification to be implemented on the notorious networked computer system or on the technical infrastructure of one of D1 or D2. The claimed implementation was limited to routine programming and, therefore, obvious to the skilled person (points 22 to 24).

3.2.3 However, the Board judges that many of the claimed features provide a technical contribution and are subject to the assessment of inventive step.

3.2.4 Like claim 1 of the refused auxiliary request, claim 1 of the present main request defines an electronic business portal system that comprises access portals enabling users to send and receive electronic mailings. These features determine the context in which this claim is to be interpreted, namely that a message, created by the message server from an input electronic mailing, is an electronic message. It is also clear that the electronic message is automatically routed to the receiving access portal where the recipient can retrieve the electronic mailing.

Accordingly, the claim clearly defines that messaging servers, system nodes, access portals and the delivery subsystem are either appropriately programmed computers and/or programs running on computers. This was essentially acknowledged by the contested decision, at point 18.

3.2.5 In line with the appellant's argument presented in the first instance proceedings (see section VIII above), the Board judges that the provision of the above computers and/or programs in order to route an electronic message from one location to another involves considerations which go beyond what the business person providing the non-technical requirements to the technically skilled person is aware of (see T 1082/13, Reasons, point 4.8).

While the contested decision was correct in stating that the claim components were defined in functional terms at a high level of abstraction, this alone is not sufficient to negate the technical considerations involved in providing those components.

3.2.6 It follows that the claimed components could not be envisaged by the business person and are part of the technical implementation which falls within the sphere of the technically skilled person.

3.2.7 The Board is not convinced by the contested decision's finding that the claimed components were not technical because they modeled the roles of humans interacting within the framework of the administrative postal scheme.

The Board considers that a similarity to a business or administrative solution is not a sufficient reason for

denying a technical contribution of a claim feature applied in a technical context and involving technical considerations. Put another way, technical considerations in the technical context cannot be negated merely on the basis of a non-technical analogy.

3.2.8 The insufficiency of such reasoning becomes clear when looking at the following example. The analogy to a post office, essentially invoked by the contested decision, is used in technical literature in order to describe functionality of the transport layer (layer 4) of the OSI model. However, in the Board's view, it would not be sound to assert, only based on this analogy, that communication protocols implementing this layer's functionality lack technical character.

3.2.9 Incidentally, the analogy to the post office even falls short, because for example resending a piece of mail, as defined in the last claimed feature, would not be possible in the analogue world of a post office. In this world, there is usually only one instance of an item, such as a handwritten letter or signed original, and it is not the normal case to keep the original and merely send copies around.

3.2.10 Neither is the Board convinced by the finding that the lack of detailed disclosure concerning the hardware used implies that the subject-matter of the application is an administrative postal scheme. This lack of technical detail does not remove, as essentially argued by the appellant, the technical contribution of routing electronic messages and ensuring their integrity in a novel manner. The questions as to which hardware should be used and what particular programming techniques should be employed were not the focus of the invention and the application legitimately relies in this respect

on the skilled person's common general knowledge.

3.2.11 Turning specifically to the last four features of claim 1, the Board disagrees with the contested decision that they define administrative matter.

The Board judges that in the aforementioned claimed context the message integrity check relates to determining whether the delivered electronic message has not been altered during the transmission, or, as the application put it, whether it was delivered intact. This is a technical effect.

As regards the wording "*check the integrity of the message delivery*", its precise meaning is not clear. In any event, it is not derivable from this wording that the system checks whether the received message was delivered only once, as argued by the appellant; the wording can be at most interpreted as meaning that the system determines whether the way the sent message has been delivered meets some predefined standards.

However, even assuming that, unlike the former check, the latter check is based on some administrative criteria, the decision to perform this check both at the originating and destination system nodes involves technical considerations. And so does the decision on what electronic messages the two nodes should exchange in order to perform the checks. Accordingly, these features also fall within the sphere of the technically skilled person.

3.2.12 In summary, the Board judges that the access portals, message servers, delivery subsystem, system nodes and the message creation and routing functionality carried out by these components are technical features. The

same is true for adapting the originating and destination system nodes to perform the integrity checks of the received messages and to discard and resend a message which fails these checks.

3.2.13 The Board judges that these features are not part of a requirement specification provided to the skilled person and in order to assess whether they involve an inventive step (Article 56 EPC), an analysis of the written prior art is necessary.

This analysis would have to contain a detailed feature mapping and precisely indicate which of the above features are novel over the prior art. It would also have to include the problem and solution approach demonstrating why the skilled person would have modified the prior art in such a way as to provide these features.

3.2.14 Such an analysis is also necessary to assess the inventive step of independent method claim 10 corresponding to claim 1.

3.2.15 Given the above assessment of technicality, the analysis of prior art in the contested decision was not sufficient.

The decision briefly mentioned that D1 and D2 related to systems enabling secure delivery of business documents and that they disclosed technical infrastructure corresponding to that described in the present application. Furthermore, the decision indicated extensive passages of these documents: eight pages of D1 and three columns of D2, but it did not discuss this disclosure in any detail (decision, point 24).

Apparently, the examining division saw no need for the detailed analysis of the written prior art, because they considered that many of the claimed features lacked technical character and, therefore, were not subject to the assessment for inventive step.

3.2.16 The appellant argued that performing integrity checks at the originating and destination system node was inventive over D1 and D2 and provided some reasoning in this respect. However, assessing these arguments requires that D1 and D2 be analysed in the above manner.

4. In view of the above, the Board decides to remit the case to the examining division.

4.1 According to Article 111(1) EPC the Board may exercise any power within the competence of the examining division, which was responsible for the decision under appeal, or remit the case to the examining division for further prosecution. Article 11 RPBA 2020 lays down that the Board shall not remit a case to the department of the first instance, unless special reasons present themselves for doing so.

4.2 The Board considers that it would not be appropriate to carry out a complete examination of novelty and inventive step on the basis of the pertinent prior art for the first time in appeal proceedings, because this is contrary to the primary object of the appeal proceedings to review the appealed decision (Article 12(2) RPBA 2020).

4.3 The Board judges that these are special reasons justifying the remittal to the examining division

(Article 11 RPBA 2020).

4.4 Accordingly, the Board remits the case to the examining division for assessing the novelty and inventiveness of the main request with regard to the prior art. Furthermore, it will have to be examined whether the claim is clear (Article 84 EPC) and contains all essential features (see point 2.3 above).

4.5 Incidentally, the Board is not sure whether the search included all claimed features.

The Board notes that the International Search Report indicates the field of search as G06Q. It seems to the Board that this field is possibly too narrow to fully cover the claimed subject-matter. For example, a complete search for the applied integrity check mechanism should probably include further fields in the area of communication protocols, such as H04L.

5. Right to be heard

The appellant contended that it had not been heard sufficiently. The Board interprets this submission as meaning that the appellant's right to be heard was not duly respected.

However, although the Board does not agree with the decision in its substance, it judges that the examining division duly respected the appellant's right to be heard. The contested decision provided a clear comprehensive reasoning why the requests on file lacked an inventive step and discussed thoroughly the appellant's arguments (see decision, points 28 to 34). Also the minutes of oral proceedings show that the appellant's arguments were discussed and that the

examining division deliberated on them. While the Board comes to the conclusion that the decision erred in dismissing multiple claim features as non-technical, this is a substantive issue involving judgement.

6. Given that the appellant withdrew its auxiliary request for oral proceedings on the condition that the Board remits the application to the examining division for further prosecution of the main request, the decision can be taken in writing.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the examining division for further prosecution.

The Registrar: The Chairman:

T. Buschek M. Höhn

Decision electronically authenticated