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Datasheet for the decision
of 9 February 2021

Case Number:	T 2138/15 - 3.4.03
Application Number:	98907003.2
Publication Number:	0963580
IPC:	G07F7/10
Language of the proceedings:	EN

Title of invention:
MULTI-APPLICATION IC CARD SYSTEM

Patent Proprietor:
MONDEX INTERNATIONAL LIMITED

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - main request (no) - auxiliary request (no)

Decisions cited:
T 0621/08

Catchword:

Case Number: **T 2138/15 - 3.4.03**

D E C I S I O N
of Technical Board of Appeal 3.4.03
of 9 February 2021

Appellant: (Patent Proprietor)	MONDEX INTERNATIONAL LIMITED 47-53 Cannon Street London EC4M 5SQ (GB)
Representative:	Robson, Aidan John Reddie & Grose LLP The White Chapel Building 10 Whitechapel High Street London E1 8QS (GB)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 2 July 2015 revoking European patent No. 0963580 pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairman	G. Eliasson
Members:	A. Böhm-Pélissier
	T. Bokor

Summary of Facts and Submissions

I.   The appeal of the patent Proprietor concerns the
        decision of the Opposition Division to revoke the
        patent EP 0 963 580 with the application
        No. 98 907 003 on the grounds that the initial Main
        Request was not allowable under Art 54(2) EPC, as held
        in decision T 0621/08, the initial Auxiliary Requests 1
        to 3 were not allowable under Article 56 and initial
        Auxiliary Requests 2 and 3 contravened in addition
        Article 123(2) EPC.

II.   The opposition was based on the grounds of opposition
        under Article 100 (a) EPC, i.e. novelty and inventive
        step, for all requests.

III.   In a first oral proceedings before the Opposition
        Division the patent was revoked for lack of novelty. An
        appeal was filed against this decision.

IV.   In decision T 0621/08 this board (in a different
        composition) held that the subject-matter of initial
        Main Request was not novel within the meaning of
        Article 54 EPC. Initial Auxiliary Request 1 was held to
        be novel. Auxiliary Requests 2 and 3 were not discussed
        by the board. The case was then remitted to the
        Opposition Division for further prosecution on the
        basis of the requests submitted before the board in
        T 0621/08.

V.   The former Opponent withdrew the opposition and is,
        hence, no longer party to the appeal proceedings.

VI.   With the statement of grounds of appeal, the Appellant
        Proprietor filed as new Main Request the former
        Auxiliary Request 1 and a new Auxiliary Request.

VII.   In its preliminary opinion dated 29 November 2019 the
        Board concluded that the Main Request and Auxiliary
        Request as filed with the statement of grounds of
        appeal did not meet the requirements of Articles 52(1)
        and 56 EPC. The Appellant was summoned to oral
        proceedings on 15 May 2020.

VIII.   With letter dated 23 April 2020 the Appellant withdrew
        the request for oral proceedings. The Board proposed
        with letter dated 29 April 2020 the possibility to hold
        oral proceedings by Video Conference on the 15 May
        2020. The Appellant however did not accept this
        proposal.

IX.   The procedure was therefore continued by writing and
        with a communication dated 4 May 2020, the Appellant
        was invited to file observations to the Board's
        communication of 29 November 2019 within a time limit
        of 2 months. The Appellant did not reply within this
        time limit.

X.   The Appellant - Patent Proprietor (hereafter
        "Appellant") requests that the decision under appeal be
        set aside and that the patent be maintained on the
        basis of the Main Request or Auxiliary Request filed
        with the statement of grounds.

XI.   Reference is made to the following document:

        D9 = Handbuch der Chipkarten, W. Rankl/W. Effing, 2nd
             ed. 1996, pp. 125, 126, 134-138, 197, 205, 2077,
             241-244, 322, 323, 332-337, 367

XII.   **Claim 1** of the **Main Request** reads:

1. An IC card system comprising at least one IC card
for storing multiple applications, an application to be
loaded onto said card and means for determining whether
said card is qualified to accept the loading of said
application onto said card, wherein said IC card
contains card personalization data, and said
application is assigned application permissions data
representing at least one set of IC cards upon which
said application may be loaded and wherein said
determining means compares said card personalization
data with said application permissions data and wherein
said application is loaded onto said IC card in
dependence on the result of said comparison; wherein
said card personalization data comprises data loaded
onto said card at a card personalization bureau which
configures the card for a card issuer to a specific
user or class of users by using data representative of
a card issuer and data representative of a product
class, said determining means is provided on said card,
and said permissions data set includes one or more card
issuers and one or more product classes.

XIII.   In claim 1 of the **Auxiliary Request** the last paragraph
was amended as follows (the differences with respect to
claim 1 of the Main Request were highlighted by the
Board): ~~one or more~~ <u>a plurality of</u> product classes.

Reasons for the Decision

1.   The invention as claimed

1.1   A conventional single application IC card, such as a
telephone card or an electronic cash card, is loaded

with a single application at its personalization stage. That application, however, cannot be modified or changed after the card is issued even if the modification is desired by the card user or card issuer.

1.2   The invention has the objective to make it possible to store multiple applications on the same IC card. For example, a card user may have both a purse application and a credit/debit application on the same card so that the user could select which type of payment (by electronic cash or credit card) to use to make a purchase. Multiple applications could be provided to an IC card if sufficient memory exists and an operating system capable of supporting multiple applications is present on the card.

1.3   The invention further aims to provide the ability to load and delete applications for card post-production as needed and to provide the capability of the IC card system to exchange data among cards, card issuers, system operators and application providers securely and to load and delete applications securely at any time (paragraphs [0003]-[0005] of the patent).

2.   **Admissibility**

The appeal is admissible.

3.   **Main Request - Article 56 EPC (inventive step)**

3.1   **Closest Prior art**

As in T 0621/08 D9 is considered to be the closest prior art.

3.2   Difference

3.2.1   D9 discloses an IC card system comprising at least one
        IC card for storing multiple applications, an
        application to be loaded onto said card and means for
        determining whether said card is qualified to accept
        the loading of said application onto said card, wherein
        said IC card contains card personalization data (e.g.
        AID = RID + PIX + "*Nachladeschlüssel*", AID, RID and PIX
        stand for "Application Identifier", "Registered
        Application Provider Identifier" and Proprietary
        Application Identifier eXtension", respectively), and
        said application is assigned application permissions
        data ("Temporary AID" of the application to be loaded,
        see page 137, last paragraph to page 138, third
        paragraph, page 243, 2nd paragraph) representing at
        least one set of IC cards upon which said application
        may be loaded and wherein said determining means
        compares said card personalization data with said
        application permissions data ("*Authentisierung*", use of
        the AIDs and the "*Nachladeschlüssel*") and wherein said
        application is loaded onto said IC card in dependence
        on the result of said comparison; wherein said card
        personalization data comprises data loaded onto said
        card at a card personalization bureau (page 138) which
        configures the card for a card issuer to a specific
        user or class of users by using data representative of
        a card issuer (in ATR / "Historical Characters", page
        197, last but one paragraph) and data representative of
        a product class (in ATR), said determining means is
        provided on said card.

3.2.2   As previously decided by the Board of Appeal in
        T 0621/08, point 3.4, claim 1 of the enclosed Main
        Request is distinguished over the disclosure of D9,

because D9 fails to disclose that the permissions data set includes a card issuer or a product class.

3.3   Effect

3.3.1   The appellant noted that in the claimed subject-matter personalization data was stored on the card at a more granular level, i.e. the card issuer and card product type were stored as separately readable records used for the comparison with the application permissions data set rather than as a combined alphanumerical identifier value as the AID.

3.3.2   By specifying the elements of the application permissions data set in the manner as specified in the claimed invention, it was not necessary to determine, at time of creation of the card, which applications would be allowed to be loaded onto the card in the future. This was in particular advantageous for applications not created at the time of creation of the card, where the unique AID was not already known.

3.3.3   Therefore the technical effect compared with the system of D9 was that the flexibility of installing applications on an IC card was increased. A further advantage was that the card issuer had much greater control over which applications could be loaded (T 0621/08, section VI, last sentence).

3.3.4   The Board agrees that the effect compared with the system of D9 is that the flexibility of installing applications on an IC card is increased. Paragraphs [0036], [0050] and [0053] specify the purpose of the product class: The product class may be a standard credit card, a gold credit card or a platinum credit card. Depending on the card issuer (bank, service

provider) specific services and privileges may be
linked to a class of cards.

3.3.5   Therefore, the product class and card issuer correspond
          to specific commercial business models. The business
          model consists in providing more applications, if a
          client pays for a specific card type (product class) or
          a specific service provider (card issuer). Therefore,
          in the present case the achieved increased flexibility
          with respect to D9 serves especially for an improved
          business model.

3.4   Problem

          The Appellant proposes that the objective technical
          problem may be expressed as "how to increase the
          flexibility of installing applications on an IC card".
          The Board follows this proposal in view of its
          understanding of flexibility, i.e. that applications
          can be installed depending on the business models
          underlying the different product classes and card
          issuers.

3.5   Obviousness

3.5.1   The Opposition Division argued as to the feature
          "product class" that D9 specified on page 138 that the
          AID was made up of two data elements, one of them being
          the registered identifier (RID). The RID comprised
          among others the category of the application
          ("*Anwendungskategorie*").

3.5.2   As the feature "card issuer" is concerned, D9 disclosed
          on page 138 that the RID identified the application
          service provider ("*Nummer für den Anwendungsanbieter*").

3.5.3   The Opposition Division was of the opinion that giving
         permission for loading an application according to the
         "application category" had the same technical effect as
         making the comparison based on a "product class". Hence
         this differentiating feature was not considered to be
         sufficient to establish inventive step. Concerning the
         feature "card issuer", the Opposition Division was of
         the opinion that it was also obvious from D9, page 243,
         that the data for "authorized application service
         providers" was preregistered in the card by the card
         issuer via the temporary AID.

3.5.4   Thus, the difference of claim 1 to D9 in this respect
         was that the permission to load an application or not
         was based on the "card issuer" and not on the
         "application service provider" information. The alleged
         effect of "giving the card issuer much greater control
         over which applications can be loaded" was also
         achieved in D9.

3.5.5   The card issuer preregistered the application providers
         that subsequently were able to load their applications
         on the card. At this later stage, this operation could
         only be performed with a key provided by the card
         issuer ("*Nachladeschlussel*", page 243 of D9). Given the
         above, this slightly alternative way of providing the
         same technical effect was not considered to contribute
         to inventive step, either.

3.5.6   As observed in T 0621/08, the data representing the
         card issuer and the product class are written on the
         card by the personalization bureau. This data is
         encoded into the "ATR" (Answer To Reset) as a combined
         alphanumerical identifier value and is not available as
         separately readable records to be used for the
         comparison with the application permissions data (and

not in the "AID" format). The question to be answered
is

(a) whether the skilled person would have used this ATR
    data for the decision making process whether new
    software is to be installed or not, or

(b) whether the skilled person would have based their
    decision (alternatively to the category of the
    application and the application service provider,
    as available in the AID) on a card issuer or a
    product class as claimed in present claim 1.

ad a)

3.5.7   As to the argument that the present invention does not
        need an additional code ("*Nachladeschlüssel*") it is
        submitted that whether or not a *Nachladeschlüssel*
        control takes place is not reflected in the claim
        wording and therefore is not in contradiction to the
        disclosure of D9.

3.5.8   The Board is of the opinion that the skilled person
        would consider any available information registered on
        the chip card for deciding whether to install a new
        application, even if the data is not registered in the
        AID format. The card issuer and product class
        information on the other hand are encoded in the ATR
        data set. The ATR format is defined by norm ISO/IEC
        7816-3 and is the first data set to be read when a chip
        card is connected to a voltage supply (D9, page 197,
        section "Die Historical Characters"). Data contained in
        the ATR is therefore always present in the card reader.
        The format of these "Historical Characters", where the
        card issuer and the product class are saved, is however
        not defined by any norm. Nevertheless, this data is
        read out and is hence available for the decision making
        process.

3.5.9   The skilled person has to solve the problem of
         providing more flexibility in the decision making and
         installation process of a new application. Increased
         flexibility also means that alternative criteria and
         parameters are considered, which make the deciding
         process easier or more efficient. As discussed in the
         impugned patent (passages cited above) the purpose of a
         product class does not correspond to specific technical
         settings, but only serves commercial purposes
         (different business contract conditions for gold and
         platinum card). Therefore in the present case the
         achieved flexibility serves especially for an improved
         business model.

3.5.10   The Board is of the opinion that the skilled person
         faced with the problem of increasing the flexibility of
         installing applications on an IC card would in the
         present case consider whether and where data
         representing "one or more card issuers and one or more
         product classes" are available on the chip card. They
         would take this data being present on the card into
         account for deciding whether a new application is to be
         installed. In the present case this provides more
         (commercial) flexibility for the user in installing new
         software applications.

3.5.11   Once the skilled person has decided to use this data,
         they would also optimise the format and location of
         this data as well as the reading and comparing process.
         The technical implementation would not represent any
         technical difficulty and would lead to the combination
         of features of present claim 1.

ad b)

3.5.12   In addition, the Board agrees with the reasoning of the
         Opposition Division that giving permission for loading
         an application according to the application category

has the same technical effect as making the comparison based on a product class. Hence this differentiating feature cannot be considered to be sufficient to establish inventive step, because the skilled person would take a product class as alternative option into account for realising the business models described above.

3.5.13   The same reasoning can be made for the feature that the permission to load an application or not is based on the card issuer and not on the application service provider information. The skilled person would adapt the data format, location and the comparison process of the data accordingly.

3.5.14   The Board therefore finds that the subject-matter of claim 1 of the Main Request does not involve an inventive step within the meaning of Article 56 EPC.

4.   **Auxiliary Request**

The claims of the auxiliary request are based on the claims of the Main Request, wherein independent claims 1, 10, 15 and 18 are amended to recite that the permissions data includes a plurality of product classes. This amendment is a restriction of the Main Request and falls within the wording of the claims of the Main Request, i.e. "one or more product classes".

4.1   **Article 56 EPC (inventive step)**

Neither the Opposition Division nor the Board of Appeal had decided on this combination of features.

4.2   Difference

As observed in T 0621/08, D9 discloses only one product
class and not a plurality of product classes. This
plurality of product classes corresponds to different
types of IC cards, e.g. standard credit card, gold
credit card, platinum credit card etc. These types
therefore correspond to different business models of
credit cards.

4.3   Effect

The Appellant argued that in the amended claims of the
Auxiliary Request, an additional technical effect was
obtained through the use of a plurality of product
classes. The Appellant noted that this avoided the need
to maintain separate applications for each type of IC
card that a card issuer may have. In fact a list of
product classes or card providers suitable for one
application was saved on the card. The Board sees here
an increased efficiency, because a bundle of product
classes can be allocated to an application. This may
save memory space and reduce the number of applications
to be saved and maintained.

4.4   Problem

The Appellant proposes that starting from D9, the
objective technical problem may be expressed as "how to
improve the efficiency of application maintenance".
The Board agrees with this approach.

4.5   Obviousness

4.5.1   The Appellant argued that according to the Opposition
        Division the AID included a Registered Identifier

component (RID), which included an application category
("*Anwendungskategorie*"). Each AID could only include a
maximum of one application category. There was no
reason why the RID/AID should include more than one
application category. Its purpose was purely to provide
a unique number, which was obtained already by the use
of a single application category. Therefore the skilled
person would not have any motivation to include
additional application categories in the AID.

4.5.2   The Board notes that product class and card issuer are
saved in the ATR data set. The Historical Character
field in the ATR data set is not predefined by any norm
(D9, page 197). Therefore, a plurality of card types
can be registered in this field. For the reasons given
above under a) the Board is of the opinion that the
skilled person would consider registering a plurality
of card type / card issuer data in the Historical
Character field, if in this manner there would be no
need to maintain separate applications for each type of
card type / issuer.

4.5.3   It is a common practice in software development that,
if one application is valid for a plurality of
different data sets, the skilled person would register
the names of these data sets in a list and flag the
application for all these data sets accordingly. The
skilled person would not be faced with any technical
difficulty to implement this in the given context.

4.5.4   The Board is of the opinion that the skilled person
would consider registering the different card types /
card issuer in the Historical Character field of the
ATR data set for which a specific application applies
and taking this data into account for deciding whether
a new application can be installed or not. In this

context the skilled person would also consider any
other suitable data format and data location.

4.5.5   The Board therefore is of the opinion that the subject-
        matter of claim 1 of the Auxiliary Request does not
        involve an inventive step.

5.   **To summarise,** since none of the Appellant's requests
        are allowable, the appeal must fail.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

S. Sánchez Chiquero   G. Eliasson

Decision electronically authenticated