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D E C I S I O N
of 24 July 2001

Case Number: T 0826/99 - 3.5.1

Application Number: 93102942.5

Publication Number: 0562295

IPC: H04N 7/167

Language of the proceedings: EN

Title of invention:

Method and apparatus for controlling several smart cards

Patentee:

Thomson multimedia

Opponent:

Giesecke & Devrient GmbH

Headword:

Controlling smart cards/THOMSON

Relevant legal provisions:

EPC Art. 56

Keyword:

"Inventive step (yes)"

Decisions cited:

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Catchword:

-



Case Number: T 0826/99 - 3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 24 July 2001

Appellant: Giesecke & Devrient GmbH
(Opponent) Prinzregentenstr. 159
D-81677 München (DE)

Representative: -

Respondent: Thomson multimedia
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92648 Boulogne Cédex (FR)

Representative: Hartnack, Wolfgang, Dipl.-Ing.
Deutsche Thomson-Brandt GmbH
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 23 June 1999
rejecting the opposition filed against European
patent No. 0 562 295 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: S. V. Steinbrener
Members: A. S. Clelland
P. H. Mühlens

Summary of Facts and Submissions

- I. This appeal is against the decision of the Opposition Division to reject an opposition against European patent No. 0 562 295.
- II. The opposition proceedings were primarily concerned with inventive step. The opponent had *inter alia* cited the following document:
- D3: Schramm: "POS-Banking mit Chipkarten",
Geldinstitute, No. 1, 1987, pages 70 and 71.
- III. The Opposition Division held that the subject-matter of the independent claims involved an inventive step. Consequently the opposition was rejected and the patent maintained unamended.
- IV. The appellant (opponent) lodged an appeal against this decision and paid the prescribed fee. It was requested that the decision under appeal be set aside and the patent revoked in its entirety; an auxiliary request was made for oral proceedings. A statement of grounds of appeal was subsequently filed, maintaining the objection of lack of inventive step and referring to the following newly cited documents:
- D7: JP-A-64-55682 (& translation supplied by appellant)
- D8: US-A-5 163 124.

V. The respondent (patentee) in response argued that the skilled person, starting out from the teaching of D3 or D7 and seeking to solve the problem of controlling several smart cards, would not arrive at the claimed invention. D8 was late-published and therefore not part of the state of the art.

The appellant subsequently argued that both D3 and D7 showed that the claimed subject-matter did not involve an inventive step. D8 was admittedly late-published but had been cited as being the English-language equivalent of a prior published Japanese application, JP-A-62-260192.

Following a further exchange of correspondence the Board issued a communication, summoning the parties to oral proceedings. In response, the respondent filed claims of a first and a second auxiliary request. The appellant filed further prior art in order to exemplify the meaning of "smart card".

VI. Oral proceedings were held on 24 July 2001. At these proceedings the appellant maintained the request that the decision under appeal be set aside and the patent be revoked. The respondent maintained the main request, i.e. that the appeal be dismissed, and in the course of the oral proceedings filed claims of revised first and second auxiliary requests together with a revised introduction to the description for these requests.

Before the oral proceedings were closed the Board's decision was announced orally.

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

"Method for controlling two or more card readers (1, 2, 3) into which smart cards (11, 21, 31) can be inserted, said card readers (1, 2, 3) being supplied from a power supply unit (4) with the required supply voltages, characterized by controlling said card readers (1, 2, 3) and said power supply unit (4) by a processor (5), which receives authorization management data (6) and which selects one of said smart card readers having inserted a smart card which is suited for access to main data related to said authorization management data (6), and further characterized by switching off the power for the other card readers by said power supply unit (4) under the control of said processor (5)."

Claim 8 is an apparatus claim which reads as follows:

"Apparatus for a method according to any of claims 1 to 7, comprising two or more card readers (1, 2, 3) which are supplied from a power supply unit (4) with the required supply voltages, wherein said card readers (1, 2, 3) are connected by data lines (D I/O, RST, CLK) to a processor (5) and said card readers (1, 2, 3) and said power supply unit (4) are controlled by said processor (5), which is adapted to receive authorization management data (6) and is characterized in that said processor is adapted to select one of said smart cards which is suited for access to main data related to said authorization management data (6), and to control said power supply unit to switch off the power for the other card readers."

VIII. Claim 1 of the first auxiliary request adds to that of the main request that the processor (5), power supply unit (4) and card readers (1, 2, 3) are part of a pay

TV decoder or a audio or data decoder with conditional access. Claim 7 of the first auxiliary request is directed to a pay TV or audio or data decoder, the decoder having the features of the corresponding apparatus claim of the main request. Claim 1 of the second auxiliary request adds to claim 1 of the first auxiliary request that in case of changing the reception channel the power of the currently operating card reader is not switched off if the smart card inserted therein fits with the new channel. Apparatus claim 7 of this request is similar to the corresponding claim of the first auxiliary request with the addition of the above-mentioned feature.

IX. The parties' arguments are discussed in the Reasons for the Decision.

Reasons for the Decision

1. The only issue between the parties is that of inventive step. The appellant raised two separate objections, one based on the disclosure of D3 and another on the disclosure of D7. It was argued that the skilled person implementing one of these two proposals would not merely face the problem of the simultaneous use of a plurality of smart cards as described in the patent but would face the additional problem of high power consumption occasioned by the use of two card readers. The skilled person could accordingly be expected to seek to reduce power consumption. D8 was an example of many documents which solved this problem by turning off modules which were not needed. Admittedly D8 was late-published but it was clear that the Japanese application on which it was based, and which had

identical drawings, was prior art. D8 concerned a computer system having a plurality of peripheral devices which could be disconnected from the power supply circuit, see Figure 3, in order to conserve battery power.

2. The Board notes that the D8 system is based on a manual choice of which modules should be powered down, carried out by way of a setup menu; once a selection is made the corresponding modules are powered on (or off) until a further selection takes place. It was argued by the appellant that the D8 selection could be described as "authorisation management" in the same sense as used in the independent claims of all requests of the patent; the Board does not agree. Such an interpretation ignores the fact that the claims require not merely management data but authorisation data, and that this data selects a smart card reader containing a smart card "which is suited for access to main data related to said authorisation management data". The claim accordingly requires that a selection is made based on specific data tied to a particular card rather than merely a desired choice.

3. Even if for the sake of argument it were to be assumed that the prior art discloses a selection between modules based on specific data, the Board does not consider that such an arrangement would be applied by the skilled person to the card readers known from D3 and D7. Neither of these devices relates to portable apparatus and neither suggests that power consumption is a problem in need of a solution. Moreover, D3 requires the interaction of the two cards in a manner which precludes the removal of power from either card. The document describes a point of sale (POS) terminal

in which the buyer and the seller possess respective cards which enter into a dialogue in order to complete a transaction. Such negotiation between the cards means that both cards must be powered. The Board concludes from this that the skilled person, putting the teaching of D3 into effect, would not take account of the teaching of D8.

4. In the course of the oral proceedings the disclosure of D7 was discussed in some detail. Two particular aspects were considered, namely the prior art embodiment shown at Figure 8 and the embodiment of Figure 1. Dealing first with the Figure 8 embodiment, this shows "information" cards 41, 51, which are described at page 2, lines 2 to 4 and 16 to 17 of the translation as containing "semiconductor memories and microprocessors"; such a card appears to the Board to constitute a "smart card" within the meaning of the patent in suit. The cards 41, 51 are connected to respective readers 47, 57 each of which includes a power supply module 43, 53, a clock module 44, 54, a reset module 45, 55 and an input/output module 46, 56. When a card is inserted the reader runs through a sequence shown in Figure 9; in this sequence insertion of the card results in the power being turned on, clock pulses being supplied to the card, the reset line being released and data flowing via the input/output module. Once the data has been transferred a reset signal is sent to the card, the clock pulses are stopped and the power is switched off. The card is accordingly only powered during the time it is in use.

5. There is no interaction between the processes carried out in the two cards; in other words, if one card is transferring data as shown in Figure 9 then insertion

of a card into the other reader will result in a similar process being carried out independently, there being no provision for switching power to either one or the other, but not both, cards. Nor is there any suggestion in connection with this embodiment of the use of authorisation management data to select one particular reader. The Board accordingly concludes that the skilled person, starting out from the Figure 8 embodiment of D7, would not find it obvious to so modify the readers as to switch off the power to one when the other is in use. Nor does this view change when the disclosure of D8 is taken into account. D7 solves the problem of power consumption by switching off each card at the end of a session; there is no obvious manner in which the teaching of D8 could be applied to the Figure 8 embodiment of D7.

6. Turning now to the Figure 1 embodiment of D7, this discloses an arrangement in which two cards, 1,2 are connected to a single reader having a power module 4, a clock module 5, a reset module 6 and an input/output module 7. The clock, reset and input/output modules 5, 6, 7 are connected to the cards by way of respective switch modules 8, 9, 10 which decide which card is read. In other words, the only module which is not switched is the power supply, the exact opposite of the claimed arrangement. It was argued by the appellant that the skilled person would without the exercise of invention appreciate that such switching could equally well be applied to the power supply only, thereby controlling which card is used. However, this would be contrary to the object of D7, which in the sentence bridging pages 4 and 5 of the translation is given as the provision of a card device which can read plural cards whilst remaining simple, i.e. D7 is concerned

with the quasi-simultaneous use of a plurality of cards rather than the selection of a single card. This can be seen from the discussion at page 7 of the translation, in which program data is first read from card 1 and thereafter transaction data is read from card 2; at page 8 of the translation various two-card systems are described which require complementary cards or in which the content of two cards is cross-checked. This page also indicates in the final full paragraph that when the procedure has taken place the power to both cards is stopped simultaneously. Accordingly, the Figure 1 embodiment of D7 does not solve the problem of selecting one of a plurality of cards in accordance with authorisation management data. Nor, even in the case of the hypothetical problem of reducing power consumption, would the skilled person be led by the disclosure of D8 to switch off one of the cards; indeed, the paragraph bridging pages 10 and 11 of the translation describes how the continuous supply of power to both cards has the advantage of enabling reset operations on the card which is not in use.

7. The remaining prior art cited by the appellant before the first instance and only summarily referred to in the present proceedings is considered to be even less relevant. The Board accordingly concludes that the subject-matter of claims 1 and 8 of the main request is not rendered obvious by the prior art identified, either taken alone or in combination. For this reason it is not necessary to consider the first and second auxiliary requests.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

M. Kiehl

S. V. Steinbrener