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Datasheet for the decision
of 9 June 2021

Case Number: T 2010/17 - 3.5.07

Application Number: 10703845.7

Publication Number: 2399257

IPC: G11C7/10

Language of the proceedings: EN

Title of invention:
Method of selection of an available memory size of a circuit including at least processor and a memory and corresponding program and smart card

Patent Proprietor:
Thales Dis France SA

Opponent:
Infineon Technologies AG

Headword:
Selection of an available memory size/THALES DIS FRANCE

Relevant legal provisions:
EPC Art. 100(a)
RPBA Art. 12(2), 12(4), 13(1)
RPBA 2020 Art. 12(3), 13(1)

Keyword:
Inventive step - main request (no)
Amended claims filed with the statement of grounds of appeal - first and second auxiliary requests - not admitted
Amendment after summons - third to seventh auxiliary requests - not admitted

Decisions cited:
T 0641/00, T 0154/04

Case Number: T 2010/17 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 9 June 2021

Appellant: Thales Dis France SA
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Decision under appeal: **Decision of the Opposition Division of the
                        European Patent Office posted on 18 July 2017
                        revoking European patent No. 2399257 pursuant to
                        Article 101(3)(b) EPC**

Composition of the Board:

Chair   P. San-Bento Furtado
Members: M. Jaedicke
               J. Geschwind

Summary of Facts and Submissions

I.   The appeal was filed by the patent proprietor
        (appellant) against the decision of the opposition
        division to revoke European patent No. 2399257 ("the
        patent") granted on European patent application
        No. 10703845.7, which had been published as
        international application WO 2010/094592.

        During the opposition proceedings, the opponent
        (respondent) had raised the grounds for opposition
        under Article 100(a) EPC (lack of novelty and lack of
        inventive step), Article 100(b) EPC (insufficiency of
        disclosure) and Article 100(c) EPC (added subject-
        matter).

II.   The opposition division decided that the patent as
        granted (main request) fulfilled the requirements of
        Articles 83 and 123(2) EPC and that the subject-matter
        of claim 1 lacked novelty over document D7
        (US 2009/024805 A1, published on 22 January 2009).

        The opposition division also decided that the then
        first auxiliary request was not admissible under
        Rule 80 EPC as it introduced an amendment in granted
        claim 1 that was not occasioned by a ground for
        opposition and that the subject-matter of claim 1 of
        the then second auxiliary request lacked novelty over
        document D7.

III.   In its statement of grounds of appeal, the appellant
        requested that the patent be maintained on the basis of
        the granted set of claims (main request) or in amended
        form on the basis of either a first or second auxiliary
        request, both submitted for the first time with the

grounds of appeal. The appellant argued why document D7
did not disclose the claim feature related to the
generation of a signature. The first auxiliary request
was limited to claims 3 to 6 of the granted set of
claims. The second auxiliary request limited the first
auxiliary request further to a specific way of
calculating the signature disclosed in paragraph [21]
of the opposed patent.

IV.   With its response to the appellant's statement of
        grounds of appeal, the respondent requested that the
        appeal be dismissed. It maintained its submissions made
        in the opposition proceedings before the department of
        first instance with respect to non-allowability. It
        submitted further arguments against novelty of the
        claimed feature relating to a signature, clarity of the
        auxiliary requests and inventive step of the second
        auxiliary request. Moreover, it questioned the
        admissibility of the auxiliary requests.

V.   The parties were summoned to oral proceedings. In a
        communication under Article 15(1) RPBA 2020, the board
        informed the parties that the first and second
        auxiliary requests appeared to be inadmissible and
        expressed its provisional opinion on the ground for
        opposition under Article 100(a) EPC for all requests
        then on file. In particular, it expressed that claim 1
        of each of the requests did not seem to be inventive
        over document D7.

VI.   With its letter of reply dated 11 August 2020, the
        appellant submitted third to fifth auxiliary requests
        together with further arguments.

VII.   Oral proceedings were held by videoconference as
        scheduled before the board. During these proceedings,

the appellant submitted its sixth and seventh auxiliary requests. At the end of the oral proceedings, the Chair pronounced the board's decision.

VIII.   The appellant's final requests were that the decision under appeal be set aside and that the patent be maintained as granted or, in the alternative, that the patent be maintained in amended form on the basis of one of the first or second auxiliary request filed with the statement of grounds of appeal, the third to fifth auxiliary requests filed with the letter of 11 August 2020, or the sixth or seventh auxiliary request filed during the oral proceedings.

IX.   The respondent's final request was that the appeal be dismissed.

X.   Claim 1 of the patent as granted (main request) reads as follows (itemisation in parentheses added by the board):
"(1.1)A method for configuring an available memory size of an integrated circuit comprising at least a processor and a total memory,
(1.2) the method comprising a stage for the configuration of an available memory size
(1.3)   smaller than or equal to that of the total memory,
(1.4) **characterised in that** the configuration method is carried out by a circuit user
(1.5)   other than the circuit manufacturer, and **in that** the configuration method includes:
(1.6) - a step of selecting the memory size of the integrated circuit,
(1.7) - a step of registering and locking the selected memory size,

(1.8)   where such registration is locked permanently, and

(1.9) - a step of generating a signature representative of the selected memory size by the integrated circuit."

XI.   Claim 1 of the first auxiliary request reads as follows:
"An integrated circuit including a total memory that is configurable so as to obtain an available memory with a size smaller than the total memory, characterised in that it comprises:
- at least one memory zone to permanently store setting up information that defines the configuration of the memory size, and
- means to generate a signature representative of the configuration of the memory size."

Dependent claim 2 of the first auxiliary request reads as follows:
"An integrated circuit according to claim 3, which further includes a communication interface capable of transmitting the signature."

Dependent claim 3 of the first auxiliary request reads as follows:
"An integrated circuit according to claim 4, which further comprises blocking/unblocking means that block the normal working of the integrated circuit until an unblocking command is sent back in response to the sending of the signature."

Claim 4 of the first auxiliary request reads as follows:
"A smart card characterised in that it comprises an

integrated circuit according to any claim from 1 to 5."

XII.   Claim 1 of the second auxiliary request differs from
         claim 1 according to the first auxiliary request in
         that it adds the following text at the end of the
         claim: ", said signature being calculated on the basis
         of the start address and end address of the selected
         available memory size, and a circuit serial number."

         Claims 2 to 4 of the second auxiliary request are
         identical to claims 2 to 4 of the first auxiliary
         request except that claim 4 of the second auxiliary
         request refers to claims 1 to 3 (instead of claims 1
         to 5).

XIII.   Claim 1 of the third auxiliary request differs from
         claim 1 according to the main request in that step
         (1.7) has been amended to
         "- a step of registering and locking the selected
         memory size, wherein a circuit memory management unit
         locks read and/or write accessibility to only selected
         memory size,".

XIV.   Claim 1 of the fourth and fifth auxiliary requests
         corresponds to claim 1 of the first and second
         auxiliary requests, respectively.

         Dependent claims 2 and 3 of the fourth and fifth
         auxiliary requests differ from claims 2 and 3 of the
         first auxiliary request in that they refer to claims 1
         and 2, respectively. Moreover, claim 4 of the fourth
         and fifth auxiliary requests is identical to claim 4 of
         the second auxiliary request.

XV.   Claim 1 of the sixth auxiliary request differs from
         claim 1 according to the fifth auxiliary request in

that the text "said setting up information being loaded
by a bootloader," has been added after "- at least one
memory zone to permanently store setting up information
that defines the configuration of the memory size,".

XVI.   Claim 1 of the seventh auxiliary request differs from
        claim 1 according to the third auxiliary request in
        that it replaces the step of registering and locking
        with the following text (amendments marked by
        underlining):
        "- a step of registering and locking the selected
        memory size, wherein the selected memory size is loaded
        by a bootloader, wherein a circuit memory management
        unit locks read and/or write accessibility to only
        selected memory size, wherein a start address and end
        address defines the selected memory size, and wherein
        such registration is locked permanently, and".

XVII.   The arguments of the parties, where relevant to this
        decision, are discussed in detail below.

Reasons for the Decision

Main request (patent as granted)

1.   *Novelty (Article 100(a) EPC)*

1.1   Document D7 (paragraph [0008]) discloses methods and
        computational systems that include or provide an
        electronic device that enables access to an additional
        memory capacity. The electronic device ("computer")
        includes a controller, a memory and an access logic.
        The memory and the access logic are bi-directionally
        communicatively coupled with the controller. The memory
        includes an open memory area and a partitioned memory
        area, with the open area available being for use by the

controller upon an initial sale, installation or start-
up. The access logic is configured to enable access to
the partitioned memory by the controller after a
receipt by the access logic of a key or an access
purchase confirmation. The access logic may be
comprised within a secure application program comprised
within the computer and containing data access logic
operable to enable the controller to access the
partitioned memory.

1.2   The contested decision found that document D7 discloses
        features (1.1) to (1.8) of claim 1 in paragraphs
        [0008], [0012], [0013] and [0029] (see points 12.3 and
        12.3.1 of the contested decision and point X. above for
        the itemisation of claim 1 of the main request). The
        opposition division also considered that features (1.7)
        and (1.8) were disclosed in D7, paragraph [0029]. D7
        disclosed that users were informed that they could
        purchase access to the partitioned memory. In response
        to a purchase request from a user, a key was generated
        and transmitted to the user's computer where the
        computer's access logic used the key to enable access
        to the partitioned memory.

1.2.1   Moreover, the opposition division decided that feature
        (1.9) of claim 1 was disclosed in D7, paragraph [0042],
        in the context of the method for enabling access to the
        partitioned memory according to Figure 4 (see point
        12.3.2 of the contested decision). The opposition
        division interpreted the feature (1.9) as meaning that
        a characteristic mark of the selected memory size was
        generated by the integrated circuit. It considered that
        the payment information transmitted in step 4.12 of the
        method of Figure 4 in D7 necessarily included the
        chosen memory size and thus the claimed characteristic
        mark, i.e. the signature. It was not specified in

claim 1 as granted that the characteristic mark contained encrypted information. Nevertheless, the opposition division accepted that a signature had an inherent meaning of security (see contested decision, point 14).

1.3   With the grounds of appeal, the appellant contested that document D7 disclosed feature (1.9). With its letter of reply to the board's communication, it contested that document D7 disclosed features (1.7), (1.8) and (1.9) of claim 1.

1.3.1   According to the appellant, D7 did not disclose features (1.7) and (1.8) in paragraph [0029]. None of the steps disclosed in that paragraph involved any locking of the memory size as required by feature (1.7) or any locking of the registration of the memory size as specified in feature (1.8) of claim 1. The term "locking" meant an active action of securing any data. In some cases, as described in the patent, this active action was performed by blocking read and/or write access to the portion of the memory which was not going to be available. In contrast, document D7 did not block any accessibility; it only "enabled" access to the partitioned memory. Hence, there was no securing action over the rest of the partitioned memory, which should not be accessed by the user.

1.3.2   The appellant also contested the opposition division's reasoning concerning feature (1.9). D7 did not disclose feature (1.9) but rather that the server (and not the integrated circuit) generated a "signature" as a function of the payment for unlocking memory. The keys for unlocking areas of the memory in D7 could be interpreted as a signature. Moreover, the term "signature" meant "secure signature" as there was no

other way of providing a signature in the context of
the invention. Contrary to the respondent's view, D7
did not disclose any "clear text signature".

1.3.3   In the appellant's opinion, as document D7 did not
        disclose features (1.7), (1.8) and (1.9) of claim 1,
        the subject-matter of claim 1 was new over document D7.

1.3.4   As to inventive step, the appellant agreed that
        document D7 is the closest prior art for assessing
        inventive step. However, it argued that D7 would not
        have provided any prompt to the skilled person for
        features (1.7) and (1.8) as D7 disclosed neither
        blocking the memory nor permanently registering a
        memory size. These features of the claimed invention
        solved the technical problem of how to improve the
        security over the non-accessible portion of the memory.

        Moreover, in D7, it was the user who decided to buy
        access to the partitioned memory, and there was no
        indication that the "signature" was generated by the
        integrated circuit. In fact, document D7 did not
        provide any details on the purchasing, and the skilled
        person would not have known how to address the
        technical problem of improving the security of the
        purchase process. Consequently, feature (1.9) would not
        have been obvious. The other documents also did not
        disclose any prompt regarding features (1.7) to (1.9).

1.4   The respondent argued that all features of claim 1 were
        known from document D7. As to features (1.7) and (1.8),
        document D7 disclosed in paragraph [0029] that the user
        was denied access to the partitioned memory when the
        computer was activated. The user could then purchase
        access and received in return a key to enable access to

the partitioned memory.

The patent did not disclose that permanent locking of memory implied a permanent action concerning memory access. Rather, paragraph [0019] of the patent disclosed that the whole memory was accessible and that a memory management unit could deny access to any memory address not belonging to the memory portion according to the selected memory size. Hence, the physical memory was not blocked but just made not addressable.

1.4.1   As to feature (1.9), the respondent argued that the skilled person would not have understood the claimed signature as meaning a "digital signature" in a cryptographic sense. This was supported by the fact that the patent did not disclose how to generate the signature.

According to the respondent, the selected memory size should be derivable from the signature as it represented this memory size. The use of clear text corresponded to a signature used in an email, whereas for an encrypted message, a key for decrypting was needed to read the signature. Hence, an encrypted signature was not covered by the contested patent. Moreover, the signature according to the claims could not be interpreted as a key. Consequently, the proprietor's opinion that the key sent by the server in D7 was a signature was incorrect. Rather, the signature could simply be redundant data transmitted to secure a message against loss of data.

1.5   The board agrees with the respondent that document D7 discloses features (1.7) and (1.8). These features specify that the selected memory size is registered and

locked permanently. The claim wording specifies the
method steps on a functional level and does not imply
any actions for blocking access to physical memory on a
permanent basis (such as using a one-time programming
memory, which is disclosed in paragraph [0020] of the
patent as an implementation option). The claim features
(1.7) and (1.8) specify that only the selected memory
size is registered and locked. This is exactly what
document D7 discloses in paragraph [0029], where the
selected memory size is indicated by the key, which is
then applied to permanently enable access to all or
some of the partitioned memory depending on the user's
selection. In document D7, by use of the received key,
the selected memory size is registered permanently. In
view of its interpretation of the claimed subject-
matter and its analysis of D7, the board is not
convinced by the appellant's arguments. Consequently,
features (1.7) and (1.8) of claim 1 are disclosed in
document D7.

1.6   The board considers that document D7 does not
        explicitly or implicitly disclose feature (1.9) of
        claim 1. The term "signature" used in this feature is
        interpreted as meaning a "security signature" (see
        paragraph [0021] of the patent) used to calculate a
        signature for data to be transmitted (see paragraph
        [0022] of the patent). Hence, the board agrees with the
        appellant that, at least in the context of the current
        application, the term "signature" is to be interpreted
        as being associated with security and may be used for
        enhancing the security of a message to the server. This
        interpretation is consistent with the fact that the
        signature is generated by the integrated circuit
        itself. Consequently, the board is not convinced by the
        respondent's arguments that the signature could be
        interpreted as a clear text signature or as merely

providing redundancy for data transmission.

The board is also not convinced that document D7 explicitly or implicitly discloses in paragraph [0042] that the payment information transmitted to the server according to step 4.12 of D7 includes a signature for security purposes. There is no explicit or implicit disclosure of the calculation of any signature. The board considers that payment information is often, but not always, secured when it is transmitted. Moreover, even if it were accepted that payment information is secured, it may be secured other than by means of a signature.

1.7   In view of the above, the subject-matter of claim 1 is new over document D7 (Article 54 EPC) since feature (1.9) is not disclosed in D7.

2.   *Inventive step (Article 100(a) EPC)*

2.1   The skilled person, when starting from document D7, could and would have arrived at feature (1.9) without exercising inventive skill in view of the business requirement to transmit payment data in a secure manner to the manufacturer of the integrated circuit. In this context, the board notes that in accordance with the established case law of the boards, when assessing inventive step using the problem/solution approach, an aim to be achieved in a non-technical field (such as the business need mentioned above) may legitimately be added to the problem as a constraint to be met (see decisions T 641/00, OJ EPO 2003, 352; T 154/04, OJ EPO 2008, 46).

Moreover, it was well known to use digital signatures or the like to enhance the security of messages. The

board notes that the contested patent does not disclose
any details on how the signature is calculated. It
discloses merely which data is used to calculate the
signature. In view of this, from the patent
specification, it is assumed that it would have been
well known to calculate signatures. Since the skilled
person would have considered adding a signature to the
payment data to be transmitted to the server in D7 as a
matter of routine development, it also would have been
immediately clear that the signature has to be
generated on the side of the sender of the message,
i.e. the computer (integrated circuit), and not on the
side of the server, as the signature needs to be sent
with the payment data. Consequently, feature (1.9) of
claim 1 cannot be a basis for acknowledging inventive
step.

2.1.1   The board further considers that the key sent to the
computer for enabling access to the memory according to
document D7 has a similar function as the return
receipt that is sent back by the server, in response to
the received message comprising the signature, to the
integrated circuit according to paragraph [0023] of the
patent. This return receipt "may also constitute a
condition for allowing the overall working of the
circuit [...]", i.e. the return receipt may be
necessary to enable access to the memory on the
integrated circuit. Moreover, paragraph [0023] of the
patent also explains that the message comprising the
signature is "particularly for the purpose of charging
the price". Hence, the appellant's argument that the
signature according to feature (1.9) is contrary to the
approach of D7 in which the key is sent from the server
to the computer is not convincing.

2.2   In view of the above, the subject-matter of claim 1
        lacks inventive step (Article 56 EPC) when starting
        from document D7 in combination with the common general
        knowledge.

First auxiliary request

3.   *Admissibility*

3.1   The set of claims of the first auxiliary request
        corresponds to granted claims 3 to 6.

3.2   The appellant did not substantiate the first auxiliary
        request in its statement of grounds of appeal. In the
        oral proceedings, the appellant argued that the first
        auxiliary request was admissible since no amendments
        had been made. Thus, the subject-matter of independent
        claim 3 of the patent could be discussed in the appeal
        proceedings.

3.3   In its reply to the statement of grounds of appeal, the
        respondent argued that the first auxiliary request was
        inadmissible since the dependencies of the dependent
        claims were incorrect. A further reason for not
        admitting the first auxiliary request was that the
        proprietor had not explained why the opposition
        division's opinion that granted claim 3 (i.e. claim 1
        of the current first auxiliary request) lacked novelty
        over document D7 was incorrect. In the oral
        proceedings, the respondent stated that the first
        auxiliary request also gave rise to new issues under
        Articles 123(2), 83 and 56 EPC, as explained in the
        notice of opposition for claim 3 as granted.

3.4   Since the statement of grounds of appeal was filed
        before the entry into force of the Rules of Procedure

of the Boards of Appeal 2020, Article 12(4) RPBA 2007 is still applicable (Article 25 (2) RPBA 2020).

3.5   In accordance with Article 12(4) RPBA 2007, the board has the power to hold inadmissible facts, evidence or requests which could have been presented in the first-instance proceedings.

With its statement of grounds of appeal, the appellant submitted for the first time requests which no longer contained the independent method claim 1 on which the contested decision is based but which only comprised claims of a product category (integrated circuit).

The board sees no reason why the current first auxiliary request could not have been filed earlier in the opposition proceedings at least as an auxiliary request since its purpose is to obtain a decision on the subject-matter of claim 3 as granted which had been objected to already in the notice of opposition (see also the decisions cited in Case Law of the Boards of Appeal of the EPO, 9th edition 2019, V.A.4.11.3 d)).

The appellant did not provide any convincing argument why it could only file the first auxiliary request in reaction to the contested decision. Filing this request only with the statement of grounds of appeal forced the board either to decide for the first time on the subject-matter of claim 1 of the current first auxiliary request (i.e. claim 3 of the patent as granted), something which is contrary to the primary object of appeal proceedings to review the decision under appeal in a judicial manner (Article 12(2) RPBA 2020), or to remit this request to the opposition division for further prosecution. However, in the case at issue, no special reasons present themselves for

remitting the case (Article 11 RPBA 2020).

3.5.1   Moreover, the appellant did not substantiate the first
        auxiliary request in its statement of grounds of appeal
        but only later with its reply to the board's
        communication. The board agrees with the respondent
        that the appellant should have explained in its
        statement of grounds of appeal why the subject-matter
        claimed in the first auxiliary request was new over
        document D7. In particular, Article 12(4) RPBA 2007
        requires among other things that everything presented
        with the statement of grounds of appeal should meet the
        requirements set out in Article 12(2) RPBA 2007, i.e.
        contain the appealing party's complete case (see also
        the decisions cited in Case Law of the Boards of Appeal
        of the EPO, 9th edition 2019, V.A.4.12.5).

3.6   In view of the above, the first auxiliary request is
        not admitted into the appeal proceedings under
        Article 12(2) and (4) RPBA 2007.

Second auxiliary request

4.   *Admissibility*

4.1   The second auxiliary request differs from the first
        auxiliary request in that claim 1 additionally
        specifies that the signature is calculated on the basis
        of the start and end addresses of the selected
        available memory size and a circuit serial number.

4.2   In its statement of grounds of appeal, the appellant
        submitted that this request specified the way the
        signature was calculated more precisely based on
        paragraph [0021] of the granted patent. In the oral
        proceedings, it argued that this amendment was made to

confirm that the signature is a digital signature given
that the opposition division had not correctly
interpreted this feature. Hence, the second auxiliary
request was admissible as it was substantiated with
respect to novelty and inventive step, even though the
appellant had not expressly addressed all steps of the
problem-and-solution approach.

4.3   In its reply to the statement of grounds of appeal, the
        respondent argued that the dependencies of the
        dependent claims were incorrect and that the proprietor
        had not provided a basis for the amended subject-matter
        of claim 1. Hence, the second auxiliary request was
        inadmissible. Furthermore, the respondent argued that
        the subject-matter of claim 1 was not inventive. In the
        oral proceedings, it added that the second auxiliary
        request was also inadmissible as it raised new complex
        issues under Article 84 EPC (the feature regarding the
        signature added in the second auxiliary request was
        unclear) and Article 123(2) EPC (there was an
        intermediate generalisation as claim 1 of the second
        auxiliary request isolated features from the
        description which disclosed further interrelated
        features such as the boot loader). Moreover, the
        request was inadmissible as the claimed subject-matter
        lacked inventive step.

4.4   In the board's view, the second auxiliary request, for
        similar reasons as the first auxiliary request, does
        not meet the requirements of Article 12(4) RPBA 2007 as
        it limits the claims to the subject-matter of claims on
        which the opposition division has not decided.
        Moreover, the appellant added a feature taken from the
        description to claim 1 of the second auxiliary request
        to clarify the meaning of the term "signature".
        However, it was already evident in the proceedings

before the opposition division at an early stage that
the meaning of the term "signature" was a point of
discussion (see also the second auxiliary request
considered in the contested decision, which amended
"signature" to "security signature" to clarify the
meaning of the term "signature"). Thus, this
clarification could and should have been presented in
the first-instance proceedings (at the latest in the
oral proceedings before the opposition division, which
the appellant chose not to attend) and not for the
first time with the statement of grounds of appeal.

4.5   In view of the above, the second auxiliary request is
         not admitted into the appeal proceedings
         (Article 12(4) RPBA 2007).

Third to fifth auxiliary requests

5.   *Admissibility*

5.1   The third to fifth auxiliary requests were filed after
         oral proceedings had been arranged with the appellant's
         reply to the board's communication. In this reply (see
         points 1.1 and 1.2), the appellant submitted that these
         auxiliary requests responded to "the objections shown
         in the decision under appeal" and that "the content of
         these new auxiliary requests" was "totally within the
         argumentation contained in the decision
         under appeal".

         In the oral proceedings, the appellant submitted that
         it had provided a basis for all amendments made in the
         third to fifth auxiliary requests. Moreover, the third
         to fifth auxiliary requests had been filed almost a
         year before the oral proceedings. Hence, the respondent
         had had enough time to consider these auxiliary

requests and to prepare itself for the oral proceedings.

According to the appellant, the third auxiliary request had been filed in reply to point 2.3.3 of the respondent's reply to the statement of grounds of appeal. There the respondent had argued why it would have been obvious to transmit information about the memory size to be unblocked. The feature of locking the read/write memory access only to a selected memory size was a key feature of the invention, and the third auxiliary request clarified this issue in reply to the respondent's submissions in the appeal proceedings.

As to the issues of clarity and intermediate generalisation brought forward by the respondent only at the oral proceedings against the third auxiliary request, the appellant argued that there were no functional interrelationships supporting an intermediate generalisation regarding the boot loader, for example, and that the wording of the claim was clear when considering that the focus of the patent was only on the changes in manufacturing so that ancillary features known to the skilled person were not mentioned. Consequently, the third auxiliary request should be admitted.

The fourth and fifths auxiliary requests corresponded to the first and second auxiliary requests but with corrected dependencies and were admissible.

5.2   In the oral proceedings, the respondent submitted that the third to fifth auxiliary requests should not be admitted. These auxiliary requests were not convergent as the third auxiliary request reintroduced the independent method claim which was no longer present in

the first and second auxiliary requests.

Furthermore, the third auxiliary request was late filed
as it could have been submitted with the statement of
grounds of appeal. There was no reason for submitting
it only after the board presented its preliminary
opinion. The third auxiliary request also raised fresh
issues regarding clarity ("to only selected memory
size" did not imply any restriction of access to the
memory itself), Article 123(2) EPC (intermediate
generalisation) and Article 56 EPC (claim 1 added
merely the usual functionality of a memory management
unit to claim 1 of the main request).

The fourth and fifth auxiliary requests were
inadmissible as they did not change anything over the
first and second auxiliary requests apart from the
claim dependencies.

5.3   The board agrees with the respondent that the third
        auxiliary request *prima facie* raises new complex
        issues, in particular clarity and added subject-matter
        in view of an intermediate generalisation. The board
        also remarks that the wording of the amended feature is
        not directly taken from the description, page 4, lines
        19 to 22, to which the appellant referred, as it omits
        a reference to a memory zone, thus also making a
        discussion of this issue necessary.

        Moreover, the board considers that the amendment made
        does not *prima facie* overcome the issue of inventive
        step as it seems to add just the usual functionality of
        a memory management unit, as argued by the respondent.

        The board also agrees with the respondent that the
        third auxiliary request was late filed since, according

to the appellant, it was submitted as a reaction to the
respondent's reply to the statement of grounds of
appeal but was filed only after the board's summons to
oral proceedings and only after the board's subsequent
communication. Hence, the third auxiliary request is
late filed and detrimental to procedural economy.

In view of the above, the board does not admit the
third auxiliary request into the appeal proceedings
(Article 13(1) RPBA 2020).

5.4   The fourth and fifth auxiliary requests were filed in
        reply to the board's communication, but they only
        correct the claim dependencies to which the respondent
        had objected in its reply to the statement of grounds
        of appeal. These auxiliary requests thus essentially
        correspond to the first and second auxiliary requests.
        As the first and second auxiliary requests were not
        admitted, the fourth and fifth auxiliary requests are
        not admitted for substantially the same reasons, i.e.
        these requests could and should have been filed earlier
        in the proceedings before the department of first
        instance.

5.5   In view of the above, the fourth and fifth auxiliary
        requests are not admitted under Article 12(3) RPBA
        2020.

Sixth and seventh auxiliary requests

6.   *Admissibility*

6.1   The sixth and seventh auxiliary requests were filed at
        a very late stage in the oral proceedings after the
        board had heard the parties on the main request and the
        first to fifth auxiliary requests and had informed the

parties of its conclusions on these requests.

6.2   The appellant provided a basis for the amendments made
       and submitted that the sixth and seventh auxiliary
       requests were filed in reaction to new issues raised by
       the respondent for the first time during the oral
       proceedings, in particular relating to an alleged
       intermediate generalisation. The respondent had argued
       that the feature added in the third auxiliary request
       isolated features from further features disclosed in
       the description such as the boot loader. Consequently,
       the appellant had submitted the new sixth and seventh
       auxiliary requests as a quick reaction to overcome this
       issue. Moreover, it had replied always in time to all
       issues, whereas the respondent had not replied to the
       third to fifth auxiliary requests before the oral
       proceedings, this being an abuse of the procedure.

6.3   The respondent argued that the sixth and seventh
       auxiliary requests should not be admitted into the
       appeal proceedings. It argued that Article 12(2) RPBA
       2007 also required that any auxiliary requests be
       submitted with the statement of grounds of appeal.
       Filing auxiliary requests late in the oral proceedings
       did not comply with this provision. In both auxiliary
       requests, the issue regarding the intermediate
       generalisation was not solved by adding the boot loader
       as a further feature. The feature related to the boot
       loader in the sixth auxiliary request was *prima facie*
       unclear as it was not clear how this process feature
       was limiting in the context of claim 1 which related to
       a product. The seventh auxiliary request was again not
       convergent as it reintroduced the independent method
       claim that had been deleted in higher-ranking auxiliary
       requests.

6.4   The board agrees with the respondent that the sixth and
        seventh auxiliary requests raise new complex issues
        such as added subject-matter (intermediate
        generalisation) and clarity (at least for the sixth
        auxiliary request) and were filed at a very late stage
        of the appeal proceedings, namely near the end of the
        oral proceedings before the board. Moreover, the
        respondent correctly argued that there was a lack of
        convergence of these auxiliary requests (see also the
        decisions cited in Case Law of the Boards of Appeal of
        the EPO, 9th edition 2019, V.A.4.12.4). The admission
        of the sixth and seventh auxiliary requests into the
        proceedings would thus be detrimental to procedural
        economy.

        Consequently, the board exercises its discretion under
        Article 13(1) RPBA 2020 not to admit the sixth and
        seventh auxiliary requests into the proceedings.

Allegation of abuse of procedure

7.   While the board would have preferred to be informed of
        the respondent's arguments against the admissibility of
        the third to fifth auxiliary requests before the oral
        proceedings, it sees no abuse of the procedure in the
        respondent presenting its arguments concerning the
        admissibility of these new claim requests only at the
        oral proceedings. The third to fifth auxiliary requests
        were filed in reply to the board's preliminary opinion
        and before that the respondent had already extensively
        discussed the claim requests submitted with the
        statement of grounds of appeal. The appellant had to
        anticipate that the admissibility of its newly filed
        auxiliary requests could be challenged by the
        respondent at the oral proceedings and had to be aware
        that amendments made by adding features from the

description could trigger fresh issues under
Article 123(2) EPC. Moreover, a late presentation only
at the oral proceedings also bears risks for the
respondent, for example, when it is unexpectedly
prevented from taking part in the oral proceedings and
the oral proceedings take place in its absence or when
the board considers that the new arguments change the
party's case (see also the decisions cited in Case Law
of the Boards of Appeal of the EPO, 9th edition 2019,
V.A.4.10.3).

Conclusion

8.   Since the sole request admitted into the appeal
         proceedings is not allowable, the appeal is to be
         dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

S. Lichtenvort   P. San-Bento Furtado

Decision electronically authenticated