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**Datasheet for the decision
of 5 June 2013**

Case Number: T 0554/09 - 3.5.06
Application Number: 02788764.5
Publication Number: 1460551
IPC: G06F 13/00, G06F 12/00
Language of the proceedings: EN

Title of invention:

Content server, content data delivering method, program and recording medium

Applicant:

NTT DoCoMo, Inc.

Headword:

Content server/NTT

Relevant legal provisions (EPC 1973):

EPC Art. 56

Keyword:

Inventive step (no)

Decisions cited:

-

Catchword:

-



Case Number: T 0554/09 - 3.5.06

D E C I S I O N
of the Technical Board of Appeal 3.5.06
of 5 June 2013

Appellant:
(Applicant)

NTT DoCoMo, Inc.
11-1, Nagatacho 2-chome
Chiyoda-ku
Tokyo 100-6150 (JP)

Representative:

HOFFMANN EITLE
Patent- und Rechtsanwälte
Arabellastrasse 4
D-81925 München (DE)

Decision under appeal:

**Decision of the Examining Division of the
European Patent Office posted 4 December 2008
refusing European patent application
No. 02788764.5 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: W. Sekretaruk
Members: A. Teale
M. Müller

Summary of Facts and Submissions

I. This is an appeal against the decision by the examining division, dispatched on 4 December 2008, to refuse European patent application No. 02 788 764.5 because the subject-matter of claim 1 according to the main and auxiliary requests then on file lacked an inventive step, Article 56 EPC 1973, in view of the disclosure of the following document:

D1: WO 01/65354 A1.

II. A notice of appeal was received on 23 January 2009 in which the appellant requested that the decision be reversed and a patent granted. The appellant also made an auxiliary request for oral proceedings. The appeal fee was paid on 23 January 2009.

III. With a statement of grounds of appeal, received on 6 February 2009, the appellant submitted amended claims according to a main and an auxiliary request. The appellant requested, as a main request, reversal of the decision and grant of a patent on the basis of the claims according to said main request. As an auxiliary request the appellant requested grant of a patent on the basis of the claims according to said auxiliary request. The appellant also reiterated the auxiliary request for oral proceedings.

IV. In an annex to a summons to oral proceedings the board set out its preliminary opinion on the appeal, expressing doubts *inter alia* as to whether the embodiment set out in the claims according to the auxiliary request was sufficiently disclosed,

Article 83 EPC 1973. The board also questioned whether the claimed subject-matter according to the main request involved an inventive step, Article 56 EPC 1973, in view of D1. The board moreover raised objections under Article 84 and Rule 35(13) EPC 1973 concerning the clarity of the claims and the consistency of the terminology used in the claims and pointed out that the description required adaptation to the claims, Rule 27(1)(c) EPC 1973.

- V. With a response received on 30 April 2013 the appellant submitted amended claims according to a main and an auxiliary request as well as amended pages of the description. The appellant requested grant of a patent on the basis of the claims according to the new main and auxiliary requests, the new description pages and the remaining application documents on file.
- VI. At the oral proceedings, held on 5 June 2013, the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request or on the basis of the auxiliary request, both dated 30 April 2013.
- VII. At the end of the oral proceedings the board announced its decision.
- VIII. The application documents on file are as follows:

Description:

Pages 6 to 20, received on 7 October 2003.

Pages 1, 1a, received on 20 October 2005.

Pages 2 to 5, received on 30 April 2013.

Claims:

Main request: 1 to 3, received on 30 April 2013.

Auxiliary request: 1 to 3, received on 30 April 2013.

Drawings:

Sheets 1 to 10, received on 7 October 2003.

IX. Claims 1 and 2 according to the main request read as follows, passages which are replaced in the claims according to the auxiliary request being highlighted in **bold**. Put briefly, claim 3 sets out a computer program product for performing the processes of claim 2.

"1. A content server comprising: a transmission unit; a reception unit; a memory adapted to store content data in a plurality of segments which are smaller than a minimum value of allowable volume of data which can be downloaded all at once by a mobile communication terminal; a control unit adapted to receive from said reception unit identification information on a mobile communication terminal requesting content, determine on the basis of said identification information allowable volume of data said mobile communication terminal can download all at once, determine whether the allowable volume of the mobile communication terminal is larger than the minimum value of allowable volume; if the allowable volume of the mobile communication terminal is larger than the minimum value of allowable volume, to compare the volume of content data with the allowable volume of the mobile communication terminal, to determine whether the content data can be downloaded all at once by the mobile communication terminal and **to produce an information list on content data including a list item for downloading all segments of the content**

data all at once; if the allowable volume of the mobile communication terminal is not larger than the minimum value of allowable volume, **to produce an information list on content data which can be provided by a single downloading process including information on the downloadable segments of content data;** and to transmit to said mobile communication terminal an information list by said transmission unit."

"2. A content data transmission method comprising: a process of storing content data in a plurality of segments which are smaller than a minimum value of allowable volume of data which can be downloaded all at once by a mobile communication terminal; a process for receiving identification information on a mobile communication terminal requesting content; a process for determining on the basis of said identification information allowable data volume for said mobile communication terminal to download all at once; a process to determine whether the allowable volume of the mobile communication terminal is larger than the minimum value of allowable volume; a process, if the allowable volume of the mobile communication terminal is larger than the minimum value of allowable volume, to compare the volume of content data with the allowable volume of the mobile communication terminal, to determine whether the content data can be downloaded all at once by the mobile communication terminal and **to produce an information list on content data including a list item for downloading all segments of the content data all at once;** a process, if the allowable volume of the mobile communication terminal is not larger than the minimum value of allowable volume, **to produce an information list on content data which can be provided**

by a single downloading process including information on the downloadable segments of content data; and a process for transmitting to said mobile communication terminal the produced information list."

- X. The claims according to the auxiliary request only differ from those according to the main request in amendments to claims 1 and 2. In both claims the first highlighted passage has been amended to read: "to produce an information list including both list items for each of the plurality of segments of the content data and a list item for downloading all segments of the content data all at once". In claim 1 the second highlighted passage now reads "to produce an information list on content data including list items for each of the plurality of segments of the content data", whilst in claim 2 the second highlighted passage now reads: "to produce an information list including list items for each of the plurality of segments of the content data".

Reasons for the Decision

1. *The admissibility of the appeal*

In view of the facts set out at points I to III above, the appeal satisfies the admissibility requirements under the EPC and is therefore admissible.

2. *The context of the invention*

- 2.1 The application relates to a server for transmitting content such as motion picture data to a mobile

communication terminal, such as a cellular phone. Different mobile communication terminals have varying reception capabilities (referred to in the claims as the "allowable volume of data which can be downloaded all at once" and the "allowable volume"), this depending on the data processing capacity of the CPU of the mobile communication terminal, the available memory and the reproduction processing capability. Page 7, lines 8 to 14, gives an example of two mobile communication terminals having reception capabilities of 100 kbytes and 1 Mbyte, respectively. When servicing download requests from such a variety of mobile communication terminals, the problems arise of overloading low reception capability terminals, causing a malfunction, and failing to fully exploit the potential of high reception capability terminals.

- 2.2 According to the invention as described, content data is divided up into segments smaller than 100 kbytes for storage in the server; see figure 5. This segment size is deemed small enough for all mobile communication terminals to be able to download it. When a mobile communication terminal makes a request to download content from the server, a reception unit in the server receives identification information on the mobile communication terminal, and a control unit in the server uses the identification information to determine the reception capability of the mobile communication terminal. A transmission unit in the server then transmits a list of the segments available for individual download to the mobile communication terminal. If the reception capability of the mobile communication terminal is high enough to download all of the available segments together, then the

transmission unit also transmits a list item to the mobile communication terminal for downloading all segments of the content data all at once; see figures 7 and 9.

2.3 Thus the user of a mobile communication terminal with a low reception capability can download content segments in the segment list one at a time (see figure 8), whilst the user of a terminal with a sufficiently high reception capability has the choice of whether to download individual content segments in the segment list or to download all the content segments at once by selecting the additional "all at once" list item; see figure 9.

3. *The construction of claim 1 of the main request*

3.1 *The meaning of the expressions relating to the "allowable volume" of data*

3.1.1 Claim 1 refers, relating to the storage of content data segments, to the segments being smaller than "a minimum value of allowable volume of data which can be downloaded all at once by a mobile communication terminal", this expression being abbreviated three times later in the claim to the "minimum value of allowable volume". As stated in the annex to the summons to oral proceedings, the board understands the minimum value in these expressions to be a predetermined value. The appellant has not disputed this. According to claim 1, the content data is stored in the memory of the content server in segments smaller than this predetermined size, the description giving

the example of a segment size of 100 kbytes or below; see page 8, lines 27 to 29.

3.1.2 Relating to the determination on the basis of the identification information on the mobile communication terminal requesting content, claim 1 refers to the determination yielding the "allowable volume of data said mobile communication terminal can download all at once", this expression being referred to four times later in the claim in abbreviated form as "the allowable volume of the mobile communication terminal". The meaning of these expressions in the context of claim 1 has been disputed in these appeal proceedings. It is common ground that, unlike the "minimum value" discussed above, this value can be different for each terminal requesting content from the server. In the oral proceedings the appellant argued that, according to the application, the volume of data that a terminal could download all at once depended on its download characteristics. Hence the situation in D1 did not fall under claim 1 in this respect because in D1 the display of the wireless communication device imposed a limit on the volume of data downloaded, there being no point in downloading more data than could be displayed. The board agrees with the appellant that the application and D1 do indeed differ as to the underlying reason for the limit on the volume of data that is downloaded to the mobile communication terminal. The board however takes the view that, since claim 1 sets out the content server, the underlying reason for this limit, which concerns features of the terminal as client, has no limiting effect on the claim. Hence the claimed "allowable volume of data said mobile communication terminal can download all at once" is understood, when

construing claim 1 (see below), to be a "volume of data" determined on the basis of the identification information on the terminal requesting content.

3.2 *The meaning of the expression "an information list on content data including a list item for downloading all segments of the content data all at once"*

In the oral proceedings the appellant argued that the "information list" according to the above expression implicitly also contained information on the downloadable individual segments of content data. The board accepts the appellant's argument because the above expression is to be understood in the context of figure 9 in which the user is presented with a display containing soft buttons for downloading individual motion picture data segments (SB1 to SB4) as well as a soft button (SB5), labelled "DOWNLOAD ALL AT ONCE", for downloading all of the segments at once.

4. *Document D1*

4.1 *The disclosure of D1*

4.1.1 D1 concerns automatically dividing up a document into smaller portions for faster transmission and/or quick display on a wireless communication device, for instance a cellular phone. Page 2, lines 14 to 17, mentions that wireless communication devices typically have a less powerful CPU, less memory, less available power and smaller display screens than other devices. Bandwidth restrictions can make downloading a complete document a lengthy process, and the user may not even wish to view the whole document; see page 3, lines 5 to

10. Moreover the wireless network connection may not always be available and may suddenly become unavailable; see page 2, lines 8 to 12. Thus the user can view chosen portions of the document without having to wait for the whole document to be downloaded. This is achieved using a specifically-adapted "microbrowser" running on the device; see page 12, lines 18 to 21, and figure 4. A message containing a list of portions is sent to the microbrowser; see figure 4, step 5, and page 24, lines 8 to 9.

4.1.2 Figure 2 shows an algorithm for dividing a document into portions. According to page 15, lines 12 to 14, this division can occur "off-line", i.e. before a request is received, or "on the fly", i.e. once a request has been received. The board understands the "off-line" alternative to mean that default values of device properties, in particular the number of lines per screen which may be displayed, are assumed when dividing the document into portions without any download request having been made; see page 15, line 17, to page 16, line 5, and page 16, lines 10 to 11. Subsequent download requests are all serviced using the same portions. The "on the fly" alternative on the other hand is understood to mean that communication occurs between the system and the device during which at least one property of the device, in particular the number of lines per screen which may be displayed, is determined; see step 2 in figure 2 and page 15, line 17, to page 16, line 17. Based on this information, the document is then divided into appropriate portions for that specific device, each download request thus causing a fresh division of the document into portions.

4.1.3 According to page 10, lines 9 to 11, a list of the portions can be displayed on the wireless communication device. Figure 5 shows the display screen of the device, at the bottom of which is a row of four text areas, each referring to a different portion of the document. The user can navigate backwards and forwards between the document portions using navigation icons; see page 25, line 20, to page 26, line 5.

4.2 *A comparison between the subject-matter of claim 1 and the disclosure of D1*

4.2.1 Since, as the appellant has argued, the subject-matter of *inter alia* claim 1 according to both requests is aimed at avoiding a fresh segmentation of the content data for each download request, the "off-line" alternative in D1 is regarded as the closest prior art.

4.2.2 It is implicit in D1 that the portions derived "off-line" are smaller than a minimum value of data which can be downloaded all at once by the wireless communication device, otherwise the system known from D1 would not work. However, as stated above, the "minimum value" set out in claim 1 is anyway construed as a predetermined value, and the download characteristics of the mobile communication terminal are not construed as being limiting the features of the server according to claim 1.

4.2.3 Consequently the "off-line" embodiment in D1 discloses the following features of claim 1 of the main request, parts of the claim which, in view of the above construction, are seen as non-limiting being indicated in parentheses: a content server comprising: a

transmission unit; a reception unit; a memory adapted to store content data in a plurality of segments which are smaller than a minimum value "of allowable volume of data which can be downloaded all at once by a mobile communication terminal" and a control unit adapted to produce an information list on content data which can be provided by a single downloading process including information on the downloadable segments of content data and to transmit to said mobile communication terminal an information list by said transmission unit.

5. *Inventive step, Article 56 EPC 1973*

5.1 *Main request*

5.1.1 It is common ground between the appellant and the board that the subject-matter of claim 1 differs from the "off-line" embodiment of D1 in the following features, although, as stated above, the board finds that the parts of the claim indicated in parentheses are not limiting on the server of claim 1:

- a. a control unit adapted to receive from said reception unit identification information on a mobile communication terminal requesting content and to determine on the basis of said identification information the allowable volume of data "said mobile communication terminal can download all at once";
- b. determine whether the allowable volume of the mobile communication terminal is larger than the minimum value "of allowable volume";

- c. if the allowable volume of the mobile communication terminal is larger than the minimum value "of allowable volume", to compare the volume of content data with the allowable volume of the mobile communication terminal, to determine whether the content data can be downloaded all at once by the mobile communication terminal and to produce an information list on content data including a list item for downloading all segments of the content data all at once and

- d. if the allowable volume of the mobile communication terminal is not larger than the minimum value "of allowable volume", to produce an information list on content data which can be provided by a single downloading process including information on the downloadable segments of content data.

5.1.2 As set out above, the board understands the expression in difference feature "a" "the allowable volume of data said mobile communication terminal can download all at once" in the context of the content server to mean a "volume of data". It is implicit in the "on the fly" alternative in D1 that during the communication with the wireless communication device "identification information" passes from the device to the system to indicate the number of lines per screen which may be displayed, this constituting a volume of data. The fact that in D1 the display of the wireless communication device as client imposes a limit on the volume of data downloaded, there being no point in downloading more data than can be displayed, is immaterial to this assessment, since in this respect the features of the

server depend only on the value of data volume. Hence the board finds that difference feature "a" is known from the "on the fly" alternative in D1.

5.1.3 It is common ground between the board and the appellant that difference features "b" to "d" are not known from any prior art document on file.

5.1.4 In feature "c" the board understands the determination "whether the content data can be downloaded all at once by the mobile communication terminal" as a comparison of the volume of content data with the allowable volume of the mobile communication terminal derived in feature "a".

5.1.5 Feature "d" sets out a decision step ("if the allowable volume of the mobile communication terminal is not larger than the minimum value of allowable volume") followed by the "off-line" alternative known from D1, as pointed out in the appealed decision regarding the "ELSE" branch.

5.1.6 According to the appealed decision, the objective technical problem starting from D1 was to provide the benefits of content segmentation while also allowing the user to download the content in a single download. The board however takes the view that this problem cannot be fairly regarded as the objective technical problem, since it is essentially a statement of the solution according to the invention, contrary to the principle that the objective technical problem should not contain pointers to the solution. The board takes the view that the objective technical problem is "to adapt the content server to also allow high reception

capability mobile terminals to be used to their full potential". The appellant has questioned whether this problem is an obvious one. In the board's opinion the skilled person in the technical field of mobile communications would have been aware at the priority date of the varied capabilities of mobile communication terminals and would have sought to improve the service provided to users of such terminals as a usual matter of design. Hence the board finds that, at the priority date, the objective technical problem would have been derivable in a straightforward manner from D1. The problem is moreover derivable from the original application; see page 2, lines 13 to 17.

- 5.1.7 In the board's view, it would have been an obvious matter of design for the skilled person starting from D1 to solve the objective technical problem by identifying the high reception capability mobile communication terminals and treating them differently from the rest. Feature "a", known *per se* from the "on the fly" embodiment of D1, the determination step "b", step "c" and the decision part of step "d" are necessary steps to implement this identification. Feature "c" is furthermore technically unrelated to feature "d", since the former sets out the treatment of "high" reception capability mobile communication terminals while the latter sets out the treatment of "low" reception capability mobile communication terminals, in this case "high" meaning that the mobile communication terminals can download all segments of the content data all at once. According to feature "c", understood as set out above in the context of figure 9, the information list includes a list item for downloading all segments of the content data all at

once. This is different from the "on the fly" embodiment of D1 in which, in the board's understanding, the document would not be divided into portions at all if the reception capability of the mobile communication terminal were sufficiently high to download the entire document in one go. However it would have been usual for the skilled person to conserve storage space on the content server, and the claimed solution avoids the need to store the content data twice: firstly as the complete content data and secondly as the segmented content data. Hence feature "c" follows in an obvious manner from the "on the fly" embodiment known from D1, adapted by the skilled person to conserve server storage space.

- 5.1.8 The appellant has argued that, starting from D1, the skilled person would have realized the "on the fly" alternative for mobile communication terminals with a sufficiently high reception capability with a sole button, namely for downloading all the data at once, and would have had no incentive to also provide a list of individual portions. Hence the skilled person would not have arrived at feature "c" in an obvious manner. The board is not persuaded by this argument. As stated above, the "off-line" embodiment in D1 is regarded as the closest prior art. According to this embodiment, a list of the portions is sent to all wireless communication devices; see page 10, lines 9 to 11. Hence the question is not whether it would have been obvious for the skilled person to add such a portion list for wireless communication devices with a "high" reception capability, but whether the skilled person would have had an incentive to remove the portion list for these devices. The board finds that no such

incentive existed. Indeed D1 hints at a good reason for retaining the portion list. In view of the reference in D1 to the wireless network not always being available and perhaps even suddenly becoming unavailable (see page 2, lines 8 to 12), the skilled person would have been aware of the need to minimise the volume of data downloaded on some occasions.

5.1.9 Hence the board finds that the subject-matter of claim 1 does not involve an inventive step, Article 56 EPC 1973.

5.2 *Auxiliary request*

5.2.1 The board agrees with the appellant that the amendments made to claim 1 according to the auxiliary request with respect to that of the main request merely make the features of the information list more explicit. However, as the features of the information list which are now explicitly set out in claim 1 of the auxiliary request, namely that the "high" reception capability mobile communication terminal not only receives a list item for downloading all segments of the content data all at once, but also list items for each of the plurality of segments of the content data, were already apparent from claim 1 according to the main request construed in the light of figure 9, the board finds that the amendments do not affect the assessment of inventive step. Hence the reasons set out above for claim 1 of the main request also apply to claim 1 of the auxiliary request.

5.2.2 It follows that the subject-matter of claim 1 according to the auxiliary request does not involve an inventive step, Article 56 EPC 1973.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

B. Atienza Vivancos

W. Sekretaruk