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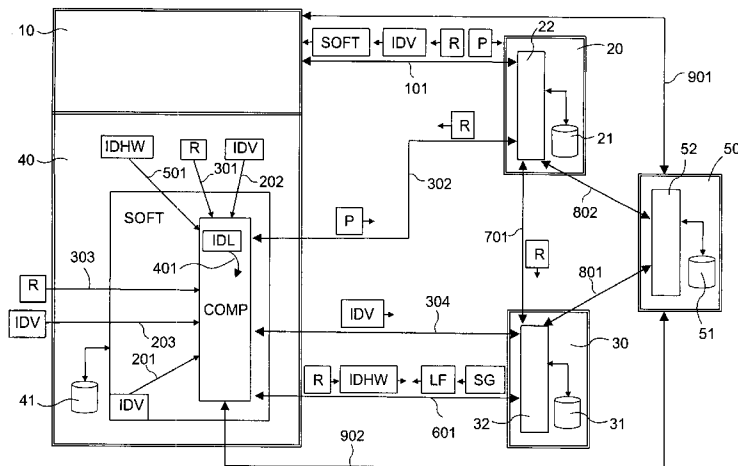
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(57) Abstract: The present invention relates to a process for implementing a method for the on-line sale of software product use licenses through a data network, and a software component which allows carrying out said process. The software products (SOFT) are offered by vendor sites (20); the purchase of a license is done on-line (101; 302) on one of said vendor sites (20); the activation of said license is authorized on-line by a different licensing site (30). A specific component (COMP) is incorporated in the software product (SOFT) and identifying data (IDV) of the vendor site (20) are transmitted during the download of the software product (SOFT). When the component (COMP) is executed in an equipment (40), it locally accesses said data (IDV) and identifying data (IDL) of the licensing site (30) and activates the license by setting up an on-line communication (601) with the licensing site (30).

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PROCESS FOR IMPLEMENTING A METHOD FOR THE ON-LINE SALE OF SOFTWARE
PRODUCT USE LICENSES THROUGH A DATA NETWORK, AND SOFTWARE
COMPONENT WHICH ALLOWS CARRYING OUT SAID PROCESS

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DESCRIPTION

Field of the Invention

10 The invention is included in the field of on-line sales of software products through a data network, for example Internet.

The invention specifically comprises a process for implementing a method for the on-line sale of software product use licenses through a data network, where said method for on-line sale consists of:

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- each of said software products being offered on-line by a plurality of vendor sites to be downloaded on-line;
 - a use license for one of said software products, offered by one of said vendor sites and downloaded on-line, being purchased on-line on said vendor site; and
 - the activation of said use license being authorized on-line by a licensing site different
- 20 from said vendor sites.

The invention also comprises a software component which allows carrying out said process.

25 In the sense of this description and of the attached claims, software product means a product formed by a set of instructions which can be loaded in the memory of a computer and can be executed individually or in combination with another software product. According to this definition, a computer program, an installation program installing a program in the computer, a package for updating a computer program, an installing file

30 downloading a computer program or an updating thereof on-line, a computer program library, etc. are examples of software products.

A site means a virtual site connected to a data network and able to exchange information

and services on-line with other sites through said data network. When the data network is Internet, the vendor sites and licensing sites are websites comprising a main webpage identified by a URL address.

5 A software component is understood to mean a set of instructions which can be loaded in the memory of a computer and incorporated in a software product to be executed together with the latter and provide specific functions. According to this definition, a dynamic library, a class or set of classes, a control or class with a graphic interface, a set of functions or any other type of software module are examples of software components.

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State of the Art

Software manufacturing companies currently sell their software products both by direct sales from their own websites and by indirect sales through their distributors.

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In the case of direct sales, the purchaser usually downloads a software product from the software company's website and pays for and obtains a use license on-line on said website. Another commonly used option consists of the purchaser ordering the software product on-line on the company's website and the latter sending the software product by mail in the form of a CD or a DVD packed in a box containing a serial number for obtaining a use license.

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Indirect sales through distributors allow a software company to multiply its sales channels and drastically reduce or even eliminate its own sales structure. Currently, when the sale is carried out indirectly through a shop or distributor, the software product is distributed in the form of a physical carrier, such as a CD or a DVD, packed in a box containing a serial number for activating a use license. This distribution in the form of a physical product is not very efficient compared to the on-line downloading of the software product from a website because it uses human and energy resources and raw materials.

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Other on-line sales systems are known in which a software company advertises its software products on several independent websites which are not connected to it. The purchaser visits one of those websites, selects one of the advertised software products

and is then automatically redirected to the software manufacturing company's website where he can acquire the software product on-line, like in the case of a direct sale set forth previously. In compensation, the software manufacturing company pays the owner of the independent website a commission for each forwarding to its own website. These sales systems are not indirect sales systems through distributors, rather they are similar to the case of a direct sale set forth previously, with the only difference that they allow advertising the products with a greater reach through independent websites. The software manufacturing company continues to support on its own website the necessary structure for carrying out the whole sales process, including the means which allow downloading the software product, the payment for and the granting of a use license.

Summary of the Invention

The applicant has designed a new method for the on-line sale of software products through a data network in the form of a method for the on-line sale of use licenses for the software products.

The new method of on-line sale designed by the applicant combines the advantages of indirect sales through distributors (multiplication of sales channels and reduction or elimination of its own sales structure) with the advantages of direct sales (the possibility of delivering the software product on-line, without a physical carrier).

This new method of sale is based on separating, on different websites, the process for acquiring the software product, understood as the process by which the purchaser carries out a commercial transaction for acquiring a use license for said software product, from the process for activating said use license for the software product, by means of which the purchaser obtains the serial number, keys or any other type of data or program allowing him to use the software product in a certain computer or computers.

According to this new method, each software product is offered by a plurality of vendor sites for its on-line acquisition from an acquisition site, and the process for activating a use license for the software is carried out in a licensing site different from said vendor sites. According to this method, the on-line acquisition of the software product includes an on-

line download of said software product as well as the on-line purchase of a use license on the vendor site which offered the software product. The software product can be downloaded directly from the vendor site itself offering said software product or from a downloading site associated to said vendor site. The use license is purchased on said vendor site, at the time of the download of the software product or afterwards, when it is necessary to obtain a use license for said software product. Once the use license has been paid for, an on-line communication is set up with the licensing site in order to activate it.

When the data network in which this method is implemented is Internet, the licensing site is normally the website of a software manufacturing company and the vendor sites are websites of distribution companies which can be independent of the manufacturing company. The advantage of this new method is that the software manufacturing company multiplies the range for spreading its software products and at the same time it is released from the obligation of having to manage the downloading means and the payment means.

Said new method provides that the purchaser can purchase the use license on-line on the vendor site at the same time that he downloads the software product and, subsequently or simultaneously, carry out the process for activating the use license by communicating with the licensing site. It also provides that the purchaser can download a demonstration version of the software product that can only be used in a trial period after which it is necessary to obtain a use license. In this case, the use license is purchased on-line after downloading the software product, at the time in which the purchaser decides to purchase the use license, and then he can carry out the process for activating the license by communicating with the licensing site.

In both cases, after the distribution companies have collected payment made by the purchaser, they pay an agreed amount to the manufacturing company for the sale of the use license for the software product.

Said new method also provides an especially advantageous configuration in which a supervising entity is created which, through a supervising site which can set up on-line communications with the acquisition site, the vendor site and the licensing site, ensures

that the sales process is carried out in suitable conditions. A manufacturing company and a distribution company can thus register in the supervising entity an agreement by means of which the former authorizes the latter to offer its software product under certain conditions. The manufacturing company can withdraw its authorization in the event of non-compliance with the agreement. The supervising entity can also register and authorize the user purchasers of the system. Likewise, the supervising entity can intervene in the different sales processes to ensure that they are carried out in suitable conditions; for example, it can verify that the distribution company is authorized by the manufacturing company to sell the product, that the distribution company pays the manufacturing company the part specified in the agreement for the sale of software products, that the purchaser is a registered and authorized user, that the manufacturing company really has the power to grant use licenses for the software product, etc.).

The implementation of this new method for the on-line sale of software products, or more specifically the method for the on-line sale of use licenses for software products, has a series of technical problems which make it difficult to carry out.

In the first place, after having downloaded the software product on-line from the vendor site offering it or from a downloading site associated to the latter, the method requires that said vendor site can be identified in a reliable manner. Furthermore, this identification information of the vendor site must be available at the time that the end user decides to purchase the use license for the software product he has downloaded, a time which may not coincide with the download of the software product, but with the installation of the latter in equipment or with the expiration date of a demonstration version of the software product or with the expiration date of the temporary use license purchased previously.

Furthermore, the possibility of identifying the vendor site before the activation of the use license is essential because the licensing site has to be able to collect from said vendor site the part of the sale corresponding to it, but it must also have the certainty that the identified vendor site is really the one who has carried out the sale and is an authorized site. It is also necessary to be able to assure the purchaser that he will be able to activate the use license on the licensing site after purchasing it on a vendor site.

Secondly, the method requires a standard implementation that can be generalized for all types of software products. It must specifically be prevented that a licensing site which wants to sell its software products through this method has to adapt them to each vendor site.

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The purpose of the invention is to provide a process for implementing said new method of on-line sale designed by the applicant, which allows providing the licensing site, in a safe and effective manner, with the identifying data of the vendor site which has offered the software product for its on-line download and in which a use license has been purchased, such that the identifying data of the vendor site can be provided at the time in which the end user needs to activate the use license for the software product, and all of the above such that a licensing site can distribute its software products according to this method of sale without needing to adapt them.

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This is achieved by means of a process for implementing a method of on-line sale of the type indicated at the beginning, characterized in that:

- a software component is incorporated to each of said software products offered by a vendor site, said software components being executable together with said software product and suitable for managing the activation of a use license for said software product;
- a transmission of identifying data of the vendor site offering said software product is associated to each of said on-line downloading process of one of said software products;
- said software component, when it is executed together with said software product in an equipment, is able to locally access said identifying data of the vendor site and to access identifying data of the licensing site, and launches a process for activating said use license for the software product comprising setting up an on-line communication with said licensing site during which said software component obtains from said licensing site activation data necessary for activating said use license.

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The technical problems set forth are solved due to the fact that the identifying data of the vendor site are transferred during the software product downloading process, and to the fact that the software product incorporates said software component, which does not need

to be customized for each vendor site and is able to locally retrieve, in the equipment where the software product is being executed, the identifying data of the vendor site and of the licensing site. This solution further allows preserving the own copy protection system of existing software products, given that the component can be incorporated in the software product and executed without interfering with said protection system. Nevertheless, as will be seen below in the description of several embodiments of the invention, the process for activating the use license applied by the component is by itself a copy protection system.

When the data network in which the method of sale according to the invention is Internet, the identifying data of the vendor site which are transmitted during the downloading process comprise the location of said vendor site in the network in the form of its URL address.

In the process according to the invention, setting up a communication between two sites must be understood as including both a direct communication between the two sites and an indirect communication through an intermediate site. Thus, for example, the communications set up by the software component with the vendor site or with the licensing site, from the equipment in which the software product is installed, can be carried out through an intermediate site without this affecting the principle of the invention. Indeed, what is important is that the software component locally accesses identifying data of the vendor site and of the licensing site, and from this data it is able to locate these sites in the network on one hand and on the other hand to provide the licensing site with data referring to the vendor site through which the download has been carried out and in which a use license has been purchased. The software component preferably communicates directly with the vendor site and directly with the licensing site. However, it can be provided that in the process for activating the license, the software component communicates directly with the vendor site, it provides it with the identifying data of the licensing site and then the communication with the licensing site is carried out directly through the vendor site. In this case, the process for activating the license would be carried out in the vendor site, but it is really the licensing site which is providing on-line the necessary data for activating the license through the vendor site. On the contrary, it can be provided that the software component communicates directly with the licensing site and that the communication with the vendor site to make the purchase is carried out through the licensing site. As will be

seen below, it can also be provided that a supervising site intervenes as an intermediary in the different on-line communications.

5 The process according to the invention provides that the identifying data of the licensing site can be incorporated in the software product or in the software component. This last solution offers the advantage that the software manufacturing company can have a licensing site different from its main site, therefore the management of the former is facilitated. To that end, the software product incorporates therein, as usual, identifying data including the URL address of the main webpage of said company, whereas the software
10 component incorporates therein the identifying data of the licensing site. Another advantage is that a single software component serves to integrate the identifying data of the licensing site in all the software products.

15 Preferably, after obtaining said activation data from the licensing site, the software component activates a use license for said software product. Therefore, the entire process for activating the license, leading to the release of the software product so that it can be used, is advantageously done by the software component itself.

20 Preferably, said on-line purchase on a vendor site of a use license for the software product preferably comprises a transmission of a purchase receipt from said vendor site, and when said software component is executed in said equipment, it locally accesses said purchase receipt and transmits it to the licensing site during the on-line communication during which the software component obtains said activation data from said licensing site. A guarantee that the purchase has been made on one of the authorized vendor sites is thus offered to
25 the licensing site in a particularly efficient and robust manner. The purchase receipt advantageously includes identifying data of the vendor site. Said on-line purchase also preferably comprises setting up an on-line communication between said vendor site and said licensing site, during which said vendor site transmits a purchase receipt to said licensing site. In this way, the licensing site knows that the use license has been purchased
30 and can claim payment of its corresponding part, without needing to wait until the purchaser had installed the software product in an equipment.

In one embodiment of the process according to the invention, an acquisition site sets up an

on-line communication with one of said vendor sites, during which said on-line software product downloading process as well as the on-line purchase of the use license for the software product are carried out. This embodiment generally corresponds to the case in which a purchaser downloads a final commercial version of the software product, i.e. a version with no demonstration period, instead of a demonstration version and then the use license must be purchased together with the download. The purchaser obtains the activation of the use license when the software product is installed, when the software component communicates with the licensing site during the process for activating the license.

In another embodiment, which is generally applied to the case in which a purchaser downloads a demonstration version of the software product, when the software component is executed in said equipment, it locally accesses the identifying data of the vendor site and sets up an on-line communication with said vendor site, during which said software component operates the on-line purchase of the use license of said software product. Therefore, the software component only launches the process for the on-line purchase of a use license when the user so decides, for example by responding to an invitation of the software component itself when the test period of the demonstration version has concluded. Preferably, when the software component is executed in said equipment, it sets up an on-line communication with said licensing site, during which it communicates said identifying data of the vendor site to said licensing site so that said licensing site authorizes the on-line purchase on said vendor site, therefore the purchaser has the certainty that the sale is authorized by the licensing site and therefore he will be able to subsequently activate the use license.

Several solutions according to the invention can be provided for transmitting the identifying data of the vendor site. In a first solution, said identifying data are introduced in a downloadable file which is downloaded by the acquisition site together with the software product during the downloading process in the on-line communication set up by the acquisition site with the vendor site. In a preferred second solution, the software product is contained in a single downloadable file which is downloaded by the acquisition site during the downloading process, in the on-line communication set up by the acquisition site with the vendor site, and the transmission of identifying data of the vendor site is carried out by

introducing said identifying data as file properties metadata of said downloadable file. Introducing said identifying data of the vendor site as file properties metadata of said downloadable file can be done in each of the vendor sites before the software product downloading process, but it is preferably done at the time in which the acquisition site
5 downloads said downloadable file during the downloading process. Another solution consists of the transmission of identifying data of the vendor site being carried out by transmitting a code to a user operating the software product downloading process, said code being subsequently provided to the software component when it is executed in said equipment. This code can be provided, for example, by means of an on-screen display or
10 by sending it by e-mail.

In an advantageous embodiment, the intervention of a single supervising site, different from the licensing sites and from the vendor sites, is provided. Said single supervising site intervenes as an intermediary in the different communications between the sites
15 participating in the on-line sale, for the purpose of ensuring that said sale is carried out in suitable conditions. The software product downloading process from a vendor site can thus comprise setting up an on-line communication with said supervising site. Likewise, the process for the on-line purchase or the process for activating the license, launched by the software component when it is executed in said equipment, can comprise setting up an on-
20 line communication with said supervising site. The process according to the invention can also comprise setting up an on-line communication between the vendor site and said supervising site, as well as setting up an on-line communication between the licensing site and said supervising site.

25 The invention also relates to the software component used in the described process, which is an essential element for implementing said process according to the invention.

Brief Description of the drawings

30 Other advantages and features of the invention will be understood from the following description which, with no limiting character, shows preferred embodiments of the invention in reference to the attached drawings. In the drawings:

Figure 1 is a block diagram showing the new method for the on-line sale of software products and the corresponding implementation process according to the invention.

5 Figure 2 is a block diagram showing at a high level the main algorithm for implementing the software component according to the invention.

10 Figure 3 is a block diagram showing at a high level the algorithm of the process for purchasing a use license, implemented by the software component according to the invention.

Figure 4 is a block diagram showing at a high level the algorithm of the process for purchasing and activating a use license, implemented by the software component according to the invention.

15 Detailed Description of an Embodiment of the Invention

Figure 1 shows the basic process for implementing the new method for the on-line sale of software product use licenses, according to the invention, including several variants.

20 In this example, the data network in which the process is installed is the Internet. The system is made up of a plurality of manufacturing companies each having a licensing website, a plurality of distribution companies each having a vendor website where the software products of the manufacturing companies are offered, and a plurality of computers connected to Internet forming potential acquisition sites for the on-line acquisition of software products offered by the vendor sites. The invention also provides
25 the possibility that the acquisition sites are hosting servers which acquire and install the program to then later grant rental licenses to a plurality of users having access to said server.

30 The software products are typically computer programs, being able to be entire programs, an installation program which installs a computer program or downloads the installation files from a computer program, upgrades or updates of programs that are already installed, etc. These software products shall hereinafter be generically referred to as programs.

The manufacturing companies adhering to the system in order to be able to sell their programs incorporate therein a software component that is specific for the system. The software component is identical for all of them. To distinguish between different licensing and/or vendor sites, the properties of the component that can be modified during programming are used. The software component shall hereinafter simply be referred to as component.

The component refers to the encapsulated group of classes and processes with their corresponding properties, which allows by means of the integration thereof in a third party application and within the execution environment of said application, the execution of certain functionalities which are predefined in the component. It is presented in the form of an executable file or dynamic library which is included or invoked from a third party application during the design of said application. The ways of including a component within an application may vary according to the programmer or the environment in which the application is programmed, the following ways of doing so being the most common:

- Including the component from a graphic menu. The programmer drags the component (graphic representation thereof) from the toolbox of the programming environment and inserts it in the form of the application. From that moment on, the programmer has access to its properties and can modify them and/or invoke the methods that have been described in the component.

- Including the component from source code. The programmer includes the code lines necessary for invoking the component (whether it is in library or executable form) within the source code block belonging to a form of the application. From that moment on the programmer has access to its properties and can modify them and/or invoke the methods which have been described in the component.

The processes herein described for both including and using the component are easily recognizable and of common knowledge for any programmer, therefore it is not considered necessary to further describe them.

The component interacts with the program by means of a series of functions or methods. In this example, the two most important methods, which will be described below, are the method which allows carrying out the purchase of a license on-line (Figure 1, reference 302) and the method which allows activating a license (Figure 1, reference 601).

5

During the purchasing process, the component shows a series of displays (graphical interface) for selecting the type of use license which is desired to be acquired and/or introducing the data needed to purchase the license.

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The use license which the user purchases can be of several types. For example, it can be an indefinite license giving the purchaser the right to use the program for an indefinite time period, or a temporary license allowing use of the program for a limited time period. The use license also may or may not include the right for the user to update the program with the new versions thereof launched in the future. Therefore, for example, a temporary use

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license may allow the use of the program for one year, together with the new program updates that come out during that same year.

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The system is preferably supervised by a single supervising website controlled by a supervising entity. The manufacturing companies which adhere to the system request the supervising site to register their licensing site, identify the programs which they wish to sell on-line and define the condition for the sale thereof. The distribution companies that wish to offer on their websites the programs of the manufacturing companies request in the supervisor site to register their vendor site. A licensing site and a vendor site can agree, in the supervising site, on the conditions of the sale of a program, for example the sale price and the part that will correspond to each of them. The supervising site provides the component to the licensing sites so that it can be incorporated in the programs. The vendor sites obtain the programs directly from each licensing site, or through the supervising site, and host them so that they can be downloaded on-line by the purchasers.

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In addition to the component supplied to the licensing sites so that they can be incorporated in their programs, the supervising site may also provide specific applications which are installed in the licensing sites and in the vendor sites for managing the different communications of the sale process, which will be described below. These applications are

not described in detail as a person skilled in the art would have no difficulty in carrying them out.

5 The incorporation of a single supervising site in the system is advantageous because it offers system reliability insurance to the different participants in the sale process. However, the system may also work without the intervention of a supervising site.

10 Figure 1 shows the case of a user using the process according to the invention. The user operates from a computer 40 having communication means 10 for communicating with Internet and storage means containing a local license database 41. In this example, the communication means 10 of the computer 40 itself form the acquisition site from which a program SOFT is acquired on-line and the computer 40 forms the equipment where the program will be executed. However, process according to the invention is also applied to the case in which the program is acquired on-line operating from one computer and then
15 said program is installed and executed in another computer. The other elements involved in this example are a vendor site 20, a licensing site 30 and a supervising site 50 which, as mentioned above is optional, each of them provided with a main webpage, respectively 22, 32, 52, and a database, respectively 21, 31, 51.

20 The user sets up communication with the vendor site 20 from the acquisition site 10. This communication can be direct communication 101 or indirect communication 901 through the supervising site 50. In the latter case, the supervising site 50 deals with authenticating the identity of the acquisition site 10 as a user of the system, or it must register the user if he is new, and may also set up a communication 802 with the vendor site 20. The user
25 chooses a program SOFT offered on the vendor site 20 and downloads it into the acquisition site 10 during direct communication 101. Identifying data IDV of the vendor site 20, including the URL address of the vendor site 20, are transmitted along with the download. The transmission of this identifying data IDV can be done in different ways.

30 Preferably, the program SOFT is contained in a single downloadable file and the data IDV are included as metadata of this file. The inclusion of these data IDV as metadata of the downloadable file is usually done on each vendor site, before the download or during the download. The metadata of a file are data containing formal information of the file, such as

the name, size, file type, modification date, owner, etc. In the Windows environment, these metadata are visible from the File > Document Properties menu in the graphical interface of Windows applications. The location containing these metadata in the file has several fields which are currently free and which are used in the process according to the invention
5 for storing the data IDV. It is also possible to define new properties for a file, for example by using the Microsoft DSOFfile.dll library. When this preferred solution is used, the data IDV are read by the component COMP as metadata of the file containing the program SOFT, as shown in 201 in Figure 1.

10 An alternative solution for transmitting the data IDV consists of storing them in an independent file that is downloaded together with the program SOFT. In this case, said independent file is installed in the equipment 40 together with the program SOFT and the data IDV are read by the component COMP in said independent file, as is shown in 202 in Figure 1.

15 Another alternative solution consists of the vendor site 20 providing the user with a code IDV, for example by means of on-screen display or by sending an e-mail, during the program SOFT downloading process, and the user then furnishes said code IDV to component COMP at the request of the latter, as is shown in 203 in Figure 1.

20 If the user downloads a program SOFT of the type not having a trial period, he purchases it by means of an on-line payment P on the vendor site 20 during the communication 101 and in exchange receives a purchase receipt R containing, either explicitly or by reference, identifying data of the vendor site 20 and information on the type of license acquired.

25 Therefore, both the IDV containing the URL address of the vendor site 20 and the purchase receipt R have been transmitted in this case from the vendor site 20 to the acquisition site 10. The transmission of the purchase receipt R can be done in the form of an independent file downloaded together with the program SOFT and it is then read by the component COMP, as is shown in 301 in Figure 1, or by means of a code furnished to the
30 user, for example by means of an on-screen display or by sending an e-mail, which is then furnished to the component COMP at the request of the latter, as is shown in 303 in Figure 1.

If the user downloads a program SOFT of the demonstration version type, which is operative for only the trial period, then the purchase P is not made during the communication 101. In this case, there is no purchase receipt R; only the data IDV containing the URL address of the vendor site 20 are transmitted from the vendor site to the acquisition site 10.

When the program SOFT is executed in the computer 40, component COMP is executed and it carries out the actions shown in Figure 2. First, 2a verifies if in the local license database 41 there is a use license for the program SOFT. If the license exists, 2b verifies if it is valid. If it is valid, 2c authorizes the use of the program. If it is not valid, 2d proposes a connection with the vendor site 20 to purchase a license. The component COMP locally accesses the identifying data IDV of the vendor site 20, including the URL address of the vendor site by means of one of the processes 201, 202 or 203 explained above. If the user agrees, 2e launches the process for purchasing a license described below and shown in Figure 3. If the license does not exist, 2f verifies if the purchase receipt R exists, which is accessed locally by means of one of the processes 301 or 303 explained above. If the purchase receipt R exists, 2g launches the process for obtaining and activating the license described below and shown in Figure 4. If the purchase receipt R does not exist, 2h evaluates if a demonstration period for the program SOFT has expired. If it has expired, 2d proposes a connection with the vendor site 20 to purchase a license, as described in the foregoing.

The process for purchasing a use license is shown schematically in Figure 3. In this process, the component COMP carries out the following basic actions. First, 3a obtains the URL address of the vendor site 20 by locally accessing the data IDV by means of one of the processes 201, 202 or 203 explained above. Then, 3b sets up a communication 304 with the licensing site and transmits the data IDV to it. The licensing site 30 checks that the vendor site 20 corresponding to the data IDV is authorized to sell the use license and, if it is authorized, returns a purchase authorization to the component COMP, after which 3c the component COMP sets up a communication 302 with the vendor site 20 and notifies it that it wishes to initiate a process for purchasing a license. During this communication 302, the user can intervene through the graphical interface of the component COMP and choose the type of license most suited to him. Then, 3d chooses the type of license it wishes to

purchase and 3e makes a purchase by means of an on-line payment P, in exchange receiving 3f the purchase receipt R. In this example, the component COMP itself sets up the communication 302 with the vendor site 20. As an alternative, it can be provided that the component COMP shows in the graphical user interface a link to the URL address of the vendor site 20 and allows the user to set up the communication 302 through the browser of his computer 40. Optionally, instead of setting up direct communication 302 with the licensing site 20, the component COMP can do this by means of indirect communication 902 with the supervising site 50.

The process for obtaining and activating the license is schematically shown in Figure 4. In this process, the component COMP carries out the following basic actions. First, 4a obtains the purchase receipt R, which is accessed locally by means of one of the processes 301 or 303 explained above. It also locally access 4b hardware identifying data IDHW in the computer 40. These data IDHW are, for example, the serial number of the hard drive where the program SOFT is installed, which is read by the component COMP by means of the process 501 indicated in Figure 1. It also obtains the URL address of the licensing site, reading it by means of the process 401 indicated in Figure 1, in the data IDL incorporated in the component COMP itself. Then, 4d sets up a communication 601 with the licensing site 30 and notifies it that it wishes to initiate a license activation session. In the communication 601, it sends 4e the hardware identifying data IDHW and the purchase receipt R and in exchange receives 4f a license file LF including the hardware identifying data IDHW, such that the license file LF will only be valid for the use of the program SOFT in said computer 40, and an electronic signature SG done with the private key owned by the licensing site 30. The component COMP owns the electronic signature public key and verifies 4g such signature. If the electronic signature SG is correct, 4h the component COMP adds the license file LF to the license database 41, where it stores the information of the different processes for purchasing and activating licenses in which it has been involved. If the electronic signature SG is not correct, 4i the license file LF is rejected.

Optionally, instead of setting up direct communication 601 with the licensing site 30, the component COMP may do so by means of indirect communication 902 with the supervising site 50, which in turn sets up communications 801, 802 with the licensing site 30 and with the vendor site 20, which can also communicate with one another. All this is

possible due to the fact that the component COMP knows the URL address of the supervising site 50 and is able to provide the URL addresses of the licensing site 30 and of the vendor site 20, contained respectively in the data IDL and IDV which the component COMP accesses locally.

5

It is also optionally provided the setting up of on-line communication 701 between the vendor site 20 and the licensing site 30, during which they exchange information relating to the acquisition of the software product SOFT. For example, this on-line communication 701 allows the licensing site 30 to know that the software product SOFT has been downloaded and/or paid for from a specific vendor site 20 before the purchaser, through the software component COMP, makes contact with said licensing site 30 to activate a use license.

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CLAIMS

1.- A process for implementing a method for on-line sale of software product use licenses through a data network, wherein said method for on-line sale consists of:

- 5
- each of said software products (SOFT) being offered on-line by a plurality of vendor sites (20) to be downloaded on-line;
 - the purchase of a use license for one of said software products (SOFT), offered by one of said vendor sites (20) and downloaded on-line, being done on-line (101; 302) in said vendor site (20); and
 - 10 - the activation of said use license being authorized on-line by a licensing site (30) different from said vendor sites (20);

said process being characterized in that:

- 15 - a software component (COMP) is incorporated to each of said software products (SOFT) offered by a vendor site (20), said software component (COMP) being executable together with said software product (SOFT) and suitable for managing the activation of a use license for said software product (SOFT);
- a transmission of identifying data (IDV) of the vendor site (20) offering said software product (SOFT) is associated to each of said on-line downloading processes of one of said software products (SOFT);
- 20 - said software product (SOFT), when it is executed in equipment (40) together with said software component (COMP), is able to locally access said identifying data (IDV) of the vendor site (20) and to locally access identifying data (IDL) of the licensing site (30), and launches a process for activating said use license for the software product (SOFT) comprising setting up an on-line communication (601) with said licensing site (30)
- 25 during which said software component (COMP) obtains from said licensing site (30) activation data (LF, SG) necessary for activating said use license.

2.- A process according to claim 1, characterized in that said identifying data (IDL) of said licensing site (30) are incorporated in said software product (SOFT).

30

3.- A process according to claim 1, characterized in that said identifying data (IDL) of said licensing site (30) are incorporated in said software component (COMP).

4.- A process according to any of claims 1 to 3, characterized in that said software component (COMP) activates a use license for said software product (SOFT) after obtaining from the licensing site (30) said activation data (LF, SG).

5 5.- A process according to any of claims 1 to 4, characterized in that said on-line purchase (101; 302), on a vendor site (20), of a use license for the software product (SOFT) comprises a transmission, from said vendor site (20), of a purchase receipt (R), and when said software component (COMP) is executed in said equipment (40), it locally accesses (301; 303) said purchase receipt (R) and transmits it to said licensing site (30) during said
10 on-line communication (601) during which the software component (COMP) obtains said activation data (LF, SG) from said licensing site (30).

6.- A process according to any of claims 1 to 5, characterized in that said on-line purchase (101; 302), on a vendor site (20), of a use license for the software product (SOFT)
15 comprises setting-up an on-line communication (701) between said vendor site (20) and said licensing site (30) during which said vendor site (20) transmits a purchase receipt (R) to said licensing site (30).

7.- A process according to any of claims 1 to 6, characterized in that an acquisition site
20 (10) sets up an on-line communication (101) with one of said vendor sites (20) during which said on-line downloading process for the software product (SOFT) as well as said on-line purchase of the use license for said software product (SOFT) are carried out.

8.- A process according to any of claims 1 to 6, characterized in that when said software
25 component (COMP) is executed in said equipment (40), it locally accesses (201; 202; 203) said identifying data (IDV) of the vendor site (20) and sets up an on-line communication (302) with said vendor site (20) during which said software component (COMP) operates said on-line purchase of the use license for said software product (SOFT).

30 9.- A process according to claim 8, characterized in that when said software component (COMP) is executed in said equipment (40), it sets up an on-line communication (304) with said licensing site (30) during which it communicates said identifying data (IDV) of the vendor site (20) to said licensing site (30) so that said licensing site (30) authorizes the on-

line purchase on said vendor site (20).

5 10.- A process according to any of claims 1 to 9, characterized in that said transmission of identifying data (IDV) of the vendor site (20), associated to the on-line downloading process for said software product (SOFT) is done by introducing said identifying data (IDV) in a downloadable file which is downloaded together with said software product (SOFT) during said downloading process.

10 11.- A process according to any of claims 1 to 9, characterized in that said software product (SOFT) is contained in a single downloadable file which is downloaded during said on-line downloading process, and said transmission of identifying data (IDV) of the vendor site (20), associated to said on-line downloading process, is done by introducing said identifying data (IDV) of the vendor site (20) as file properties metadata of said downloadable file.

15

12.- A process according to claim 11, characterized in that introducing said identifying data (IDV) of the vendor site (20) as file properties metadata of said downloadable file is done in each of said vendor sites (20) prior to said software product (SOFT) downloading process.

20

13.- A process according to claim 11, characterized in that introducing said identifying data (IDV) of the vendor site (20) as file properties metadata of said downloadable file is done during said on-line downloading process.

25

14.- A process according to any of claims 1 to 9, characterized in that said transmission of identifying data (IDV) of the vendor site (20), associated to the on-line downloading process for said software product (SOFT) is done by transmitting to a user, who operates said on-line downloading process, a code which is subsequently provided (203; 303) to said software component (COMP) when it is executed in said equipment (40).

30

15.- A process according to any of claims 1 to 14, characterized in that a single supervising site (50), different from said licensing site (30) and from said vendor site (20), intervenes as an intermediary in some of the on-line communications between said software component (COMP), said vendor site (20) and said licensing site (30).

16.- A process according to claim 15, characterized in that said single supervising site (50) also intervenes as an intermediary in said on-line downloading process of the software product (SOFT).

5

17.- A software component (COMP) suitable for being loaded in the internal memory of a computer suitable for being incorporated in a software product (SOFT) offered on-line by a vendor site (20) and downloaded on-line, for managing the activation of a use license for said software product (SOFT), characterized in that it comprises instructions which, when executed by a computer,

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- are able to for locally access identifying data (IDV) of said vendor site (20) and identifying data (IDL) of a licensing site (30);
- launch a process for activating said use license for the software product (SOFT) comprising setting up an on-line communication (601) with said licensing site (30) during which said software component (COMP) obtains from said licensing site (30) activation data (LF, SG) necessary for activating said use license.

15

18.- A software component according to claim 17, characterized in that it has said identifying data (IDL) of a licensing site (30) incorporated therein.

20

19.- A software component according to claims 17 or 18, characterized in that said software component (COMP) comprises instructions which, when executed by a computer, after obtaining said activation data (LF, SG) from the licensing site (30), activate a use license for said software product (SOFT).

25

20.- A software component according to any of claims 17 to 19, characterized in that it comprises instructions which, when executed by a computer, locally access (301; 303) a purchase receipt (R) of a use license and transmit said purchase receipt (R) to said licensing site (30) during said on-line communication (601) during which the software component (COMP) obtains said activation data (LF, SG) from said licensing site (30).

30

21.- A software component according to any of claims 17 to 20, characterized in that it comprises instructions which, when executed by a computer, locally access said identifying

data (IDV) of the vendor (20) and set up an on-line communication (302) with said vendor site (20) during which said software component (COMP) operates said on-line purchase of the use license for said software product (SOFT).

5 22.- A software component according to claim 21, characterized in that it comprises instructions which, when executed by a computer, set up an on-line communication (304) with said licensing site (30) during which they communicate said identifying data (IDV) of the vendor site (20) to said licensing site (30) so that said licensing site (30) authorizes the on-line purchase on said vendor site (20).

10

23.- A software component according to any of claims 17 to 22, characterized in that it comprises instructions which, when executed by a computer, locally access (202; 301) said identifying data (IDV) of the vendor site (20) reading them in a file.

15 24.- A software component according to any of claims 17 to 22, characterized in that it comprises instructions which, when executed by a computer, locally access (201) said identifying data (IDV) of the vendor site (20), reading them as file properties metadata of a file containing said software product (SOFT).

20 25.- A software component according to any of claims 17 to 22, characterized in that it comprises instructions which, when executed by a computer, locally access (203; 303) said identifying data (IDV) of the vendor site (20) by requesting the input of a code which has previously been transmitted to a user by said vendor site (20) during the on-line downloading of said software product (SOFT).

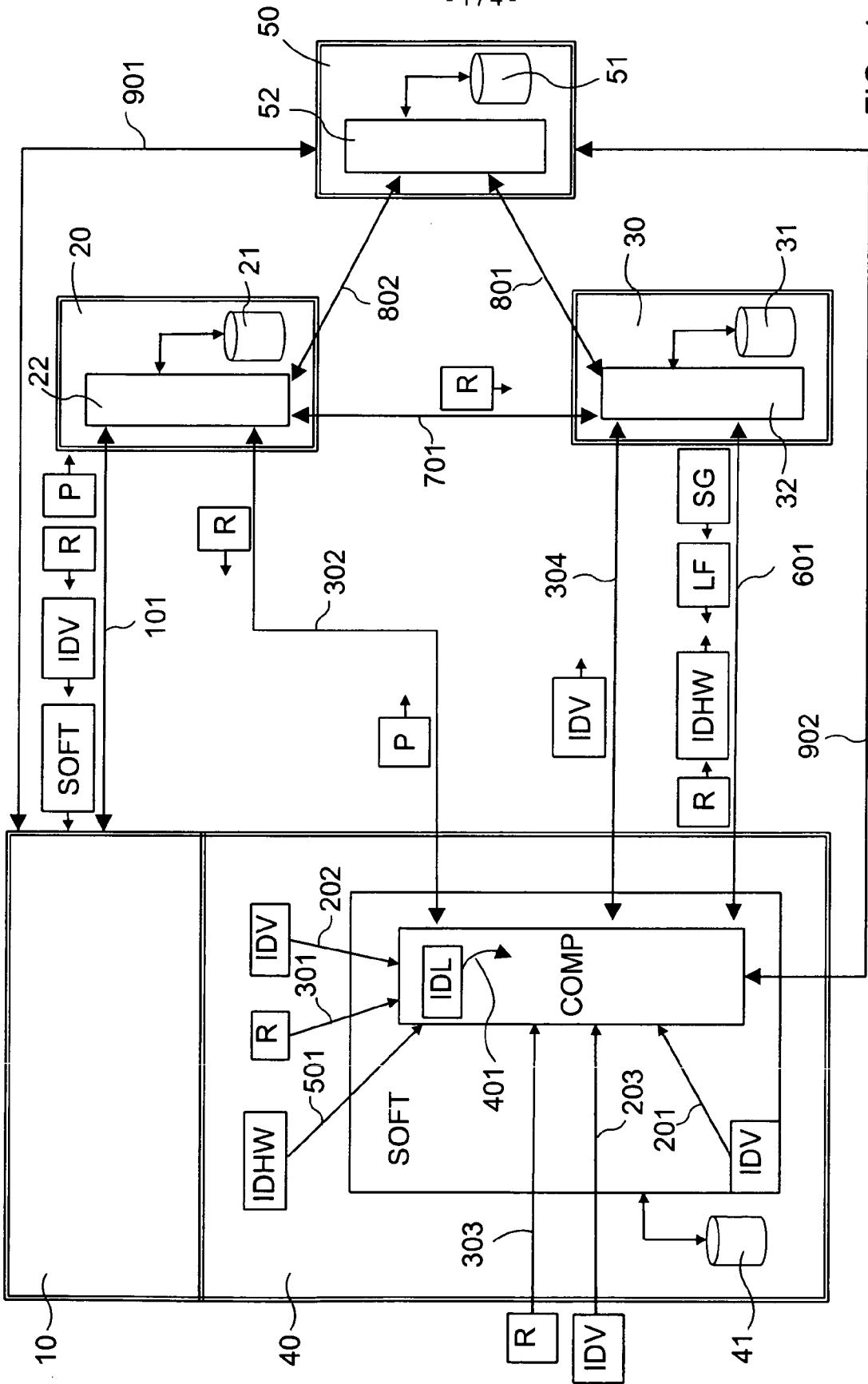


FIG. 1

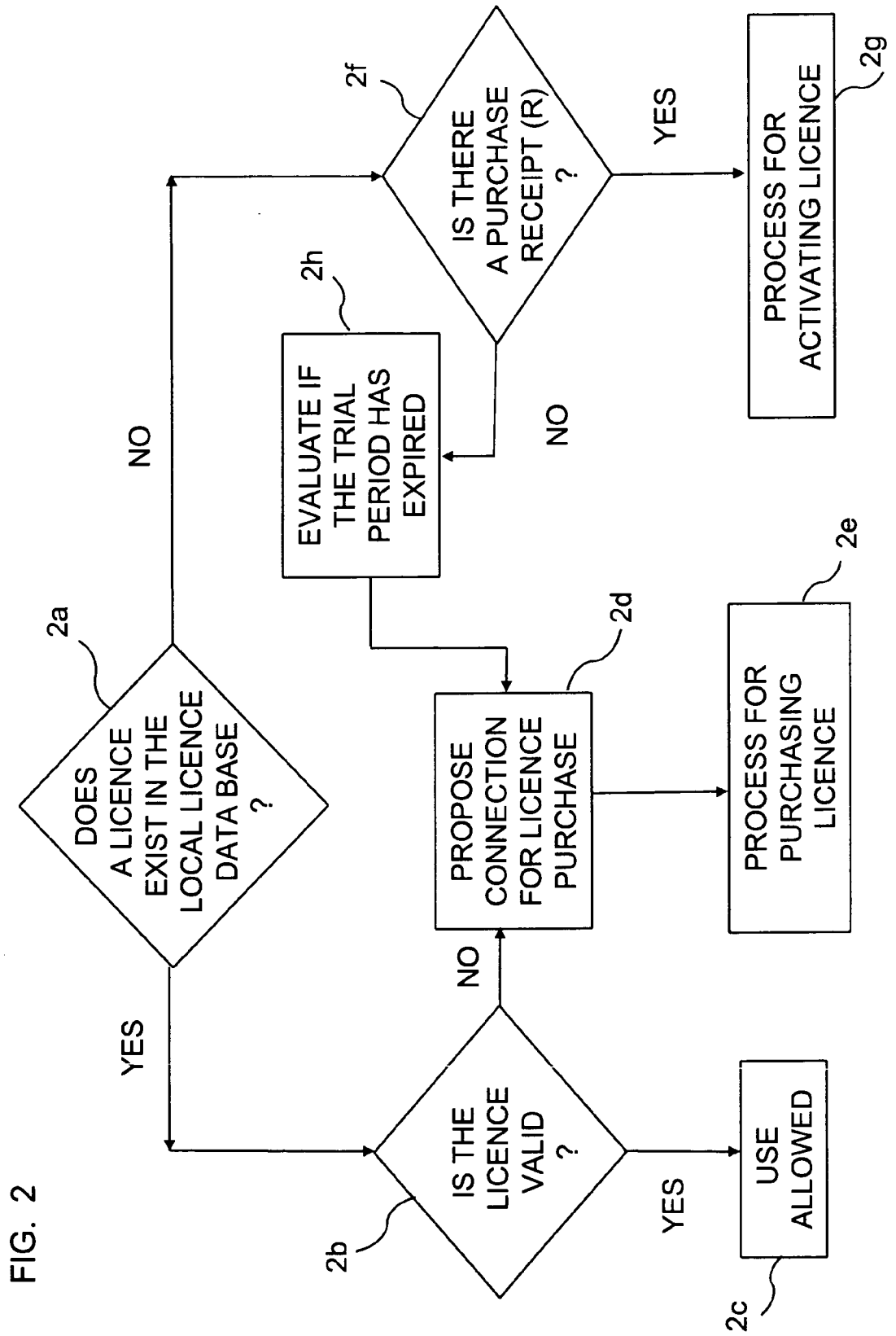


FIG. 2

- 3 / 4 -

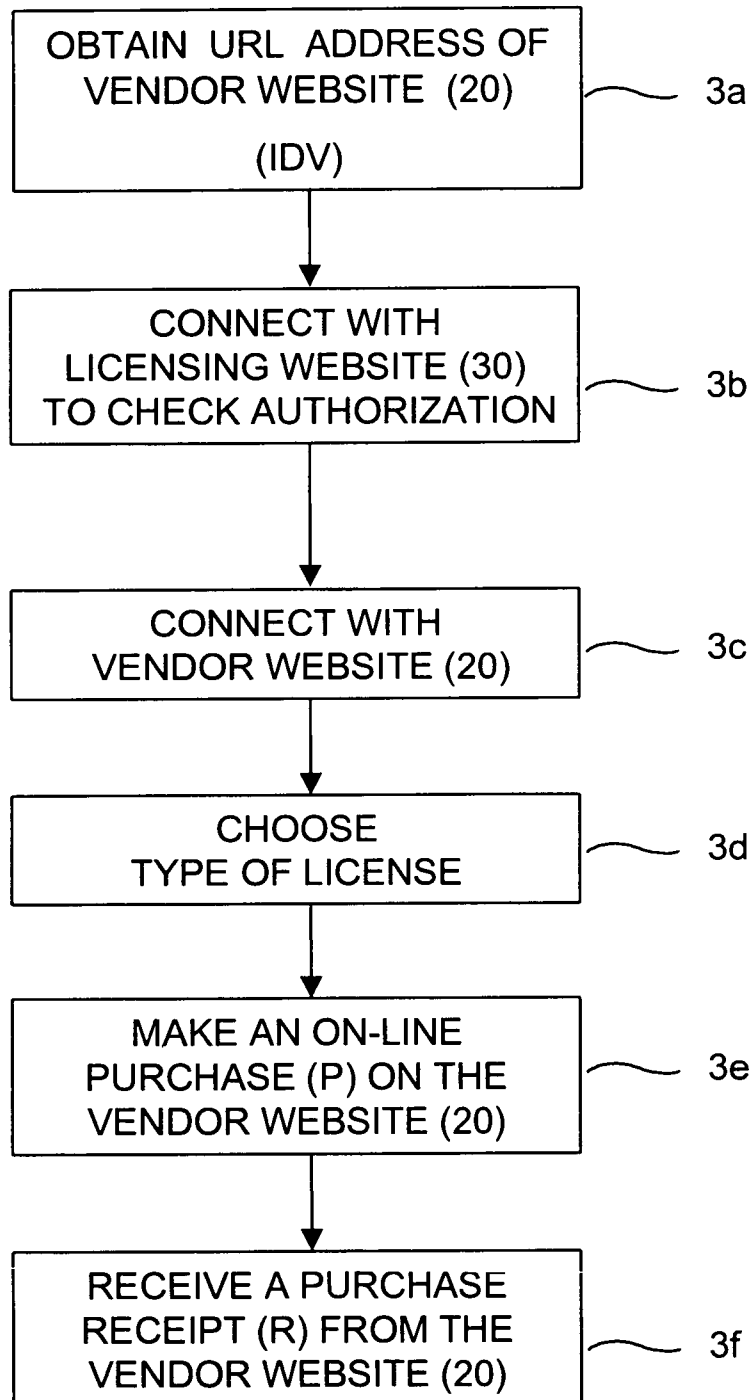


FIG. 3

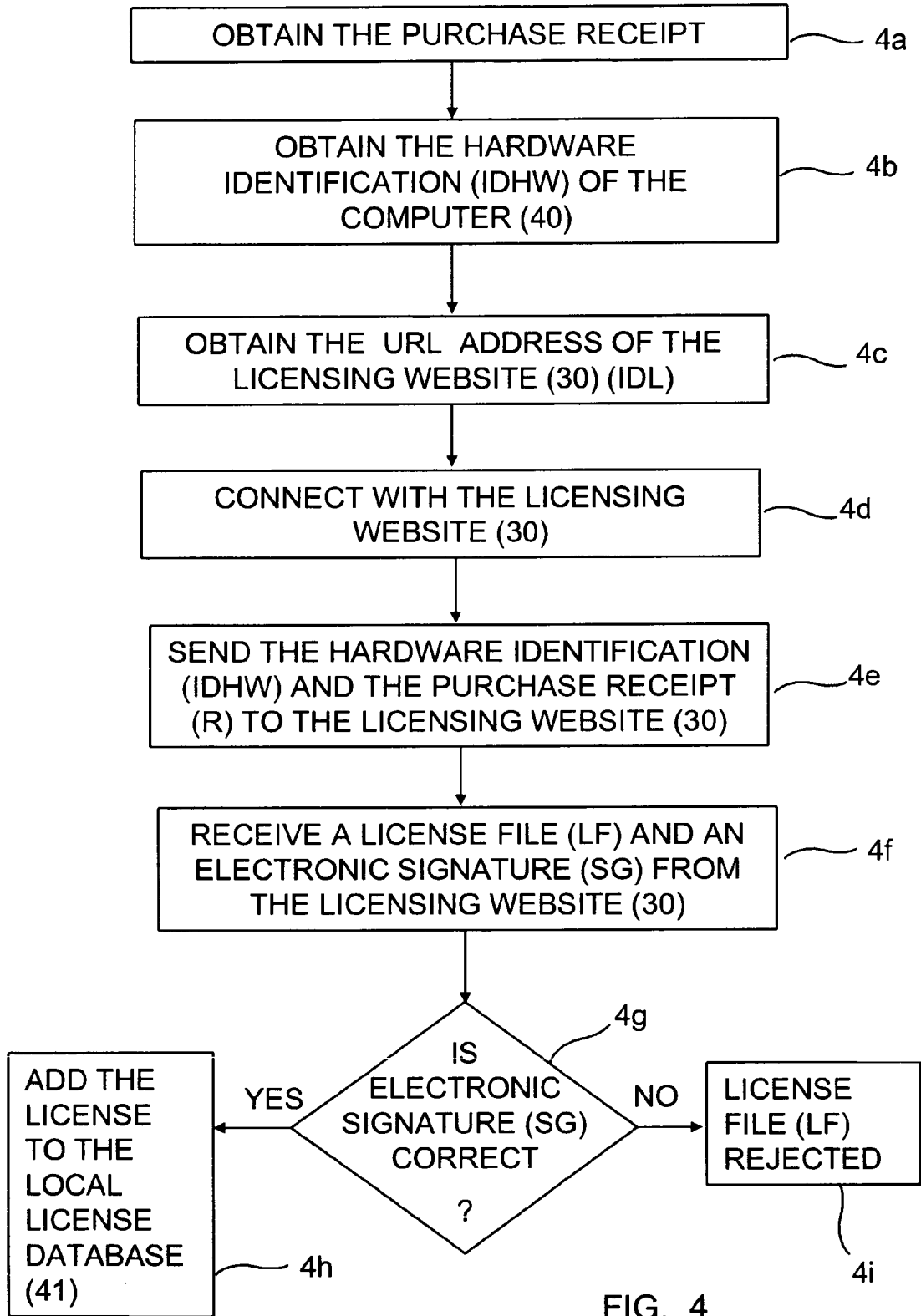


FIG. 4

INTERNATIONAL SEARCH REPORT

International application No PCT/EP2007/008195

A. CLASSIFICATION OF SUBJECT MATTER INV. G06Q30/00		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) G06Q G06F		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, IBM-TDB, INSPEC, COMPENDEX		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2005/251489 A1 (COLEY CHRISTOPHER D [US] ET AL) 10 November 2005 (2005-11-10) abstract paragraph [0018] - paragraph [0022] paragraph [0045] - paragraph [0054] claims 1-3 figures 1-7 <div style="text-align: center;">----- -/--</div>	1-25
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. ... <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents :		
A document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family	
Date of the actual completion of the international search	Date of mailing of the international search report	
18 December 2007	28/12/2007	
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Cîrstet, Andrei	

INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2007/008195

G(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	HWANG S O ET AL: "Modeling and implementation of digital rights" JOURNAL OF SYSTEMS & SOFTWARE, ELSEVIER NORTH HOLLAND, NEW YORK, NY, US, vol. 73, no. 3, November 2004 (2004-11), pages 533-549, XP004560797 ISSN: 0164-1212 abstract section "3. Modeling the rights protection system" section "4. Implementation of the rights protection system" figures 1-7 -----	1-25
X	US 6 073 124 A (KRISHNAN GANAPATHY [US] ET AL) 6 June 2000 (2000-06-06) abstract column 9, line 24 - column 10, line 55 column 12, line 60 - column 14, line 40; figure 3 -----	1-25
A	EP 1 243 998 A (FULLY LICENSED GMBH [DE]) 25 September 2002 (2002-09-25) paragraph [0027] - paragraph [0029] paragraph [0041] - paragraph [0053] paragraph [0072] - paragraph [0082] paragraph [0110] - paragraph [0111] paragraph [0139] - paragraph [0142] figures 1-11 -----	1-25
A	US 2006/143135 A1 (TUCKER DAVID M [AU] ET AL) 29 June 2006 (2006-06-29) abstract paragraph [0034] - paragraph [0036] paragraph [0039] - paragraph [0051] figures 3A,3B -----	1-25

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Information on patent family members

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