METHOD AND NETWORKING SYSTEM FOR PROVIDING SERVICES

Abstract: Method for providing services, including possibility also the announcement and/or the installation and/or the maintenance and/or the removal of services, whereby, by means of communication connections (6), communications are realized between service providers (2) and service platform (3, 7, 8, 9), amongst others, at users, (4), characterized in that the services are provided and controlled by means of an external service controller (5) placed centrally between the service providers (2) and the users (4), whereby this method allows for that the service control can be realized as uncoupled from the offered services and also allows for that the service controller (5) can combine different services of one or more service providers (2) to a new or adapted service.
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the “Guidance Notes on Codes and Abbreviations” appearing at the beginning of each regular issue of the PCT Gazette.
Method and networking system for providing services.

This invention relates to a method and a networking system for providing services, including possibly also the announcement and/or the installation and/or the removal of services, in other words, for supplying software and/or information by means of a communication network.

More particularly, the invention relates to a method and device with which services, substantially originating from a service provider, can be delivered in an efficient manner to a service platform which can be consulted by a user.

In the scope of the present invention, by a service provider each provider has to be understood which provides services, whereby providing information as well as providing software and the like may be concerned.

By a service platform, thereby any form of a system has to be understood which can be applied by a user, on which system software applications can be run and/or information or functionality can be provided, by which in the first place personal computers (PC's), portable computers, hand-held computers (palmtops), telephones, mobile computer units built-in in vehicles, which, for example, comprise a navigation system, and so on, are intended.

In the present frame of telematics, supplying and implementing services, with which, according to the present invention, the delivery of software as well as information is intended, so to speak is directly accomplished between a service provider and a user.
The disadvantage of this direct approach is that each service provider, in order to be able to reach a consuming public as large as possible, must be able to render his services accessible for, on one hand, a broad range of service platforms, such as the aforementioned PC's, hand-held computers, portable computer units and so on, each with its intrinsic possibilities, such as calculation capacity, screen resolution, multimedia possibilities and so on, and, on the other hand, a large diversity of possible informatics applications, each with their specific standards in which the specific form in which data or informations have to be offered, amongst others, the specific form in which an image file must be supplied, for example, as a GIF file, a PDF file, or another image format.

Moreover, the service provider must be able to offer his services by means of a number of communication networks, such as Internet, mobile phone, WAP, radio networks, TV networks, satellite connections and others, each with an own infrastructure and communication protocol.

Still another disadvantage of the direct approach is that it is particularly difficult to combine different telematics services, offered by different service providers, such as, for example, coupling traffic information to information from a navigation system.

Due to the direct approach, the service provider is forced to direct an important part of his activities towards making his services available and possibly combinable, as a result of which he will be less able to concentrate on the development of the offered or new services, in respect to the contents as well as to quality.
For the user, this means that, in most cases, the offered services are not optimized for his service platform or, in the worst case, even cannot be run thereon. Moreover, the user is burdened with additional software codes, for example, in the form of additional control programs for other platforms than his own, which occupy additional storing and/or memory capacity.

It is, however, already known to be able to have access to services provided by several service providers by one common supplier. A classic example thereof is providing consultable information databases, whereby one and the same supplier gives the users access to several databases originating from different service providers. The supplier thereby exerts a passive control on the use of the databases, in order to make a cost calculation for the use of the databases, however, an active control function is not exerted.

At present, providing software services has developed to so-called "service-oriented" solutions, whereby different computer systems are in connection with each other in a network.

Such "service-oriented" solutions are characterized by the "object"-oriented methodology and the offering of solutions which may consist of different software components which in their turn offer a group of solutions which substantially are characterized by the integration of communication possibilities.

The present "service-oriented" solutions, such as .Net initiatives of Microsoft, the "Web services" of IBM, are characterized in the use of these services, whereby, on one hand, the service is known and, on the other hand, the performance of these services takes place on the
server.

An evolution around these services is characterized by the presence of these services within a network. By means of a central searching mechanism, denominated "registry", these services can be found and used by a user. Examples thereof we will find at "IBM's Web Services"; however, also at HP with their "e-speak" environment. Their basic principle relies on the publishing of services by the service provider, the finding of services by the user and the using of services in their solutions.

Technologically, it can be stated that by these principles, the realization of what, in technical terms, is called "loose coupling" is made possible. Thus, the present evolutions are taking place in the range of efficiently finding these services, as well as realizing a standard in order to make these services possible. "UDDI" thus relates to the principle of finding the services, and "XML", "SOAP" as well as "ebXML" form the basis for standards which are applied in order to let services interact.

Globally, it can be stated that the principle of software services starts with offering software solutions and that these software solutions show the following limits:

- the control of the operational services is in the hands of the service provider;
- there is no support for the evolution of these software services;
- providing one and the same software service for different target platforms implies a local control of each of these software services;
- there is no uncoupling between the actual software service and the commercializing profile in which licences, usage conditions, price information and
The present invention aims at a method and networking system for providing services, which offer many advantages in their use and by which preferably one or more of the aforementioned disadvantages are remedied.

To this aim, the invention in the first place relates to a method for providing services, including possibly also the announcement and/or the installation and/or the maintenance and/or the removal of services, whereby, by means of communication connections, communications are realized between service providers and service platforms, amongst others, at users', with as a characteristic that the services are provided and controlled by means of an extern service controller placed centrally between the service providers and the users, whereby this method allows for that the service control can be realized as uncoupled from the offered services and also allows for that the service controller can combine different services from one or more service providers to a new or adapted service. In that, on one hand, an actual control function is provided, the advantage is created that services can be supplied to a user in an optimum manner, from the point of view of the service provider, as the service controller provides for an optimization of providing services towards the user, as well as from the point of view of the user, as the service platform of the latter is applied in an optimized manner for obtaining the desired services.

Preferably, a certain service is made available for the service controller by the service provider, in the form
of, on one hand, different versions of a user software, which can be denominated a "software code", whereby each version is optimized for a certain service platform (3, 7, 8, 9) and whereby the service provider (5), before making the service available for the user, can download the suitable version and install it on the respective service platforms (3, 7, 8, 9), and, on the other hand, a separate control software, which can be denominated "business logic", in which, for example, price conditions, usage conditions, licences, safety and the like are determined.

By separating the "software code" from the "business logic", the "business logic" can be controlled independently from the "software code", which offers certain advantages. If, for example, after some time the "software code", the performance modalities of a maintenance contract of a car fleet remain unaltered and an alteration in the "business logic" takes place, for example, better price conditions for one well-defined controller of a car fleet, then this "business logic" can be adapted without having to re-define the service as a whole and to register it again. In this case, thus, it is sufficient that the "business logic" is adapted for that one car fleet controller, whereas the "software code" remains unaltered, whereas also the "business logic" for other controllers of car fleets can remain unaltered. By this separation, the service in total becomes less expensive. At the plane of maintaining the services, it is not necessary to determine new services each time only the "business policy" is altered.

In an active roll of the service controller, this latter can realize the commercial side, such as price arrangements, billing and such, towards the user. In a passive roll, whereby the service controller only
provides his infrastructure, the service provider will be able to perform his "business logic" actively towards the user.

Preferably, an interaction between at least two of the following elements will be provided: one or more service providers, one or more service platforms for users, and one or more service controllers, more particularly in an interaction between the software of these elements.

So, for example, in order to be able to use a certain service, an interaction may be necessary between said user software and a basic software on the platform of the service provider. Thus, the service provider can keep the source code of his offered services within his own borders and thus obtain a better protection of his know-how.

Preferably, said interaction at least consists in that the service controller can make a surview of the possibilities of a respective service platform. In this manner, the service controller can provide services in an optimum manner, in a form which is most suitable for being processed by the service platform, and/or perform measures which optimize the service platform, such as downloading software onto the service platform which is necessary in order to be able to use certain services.

According to a preferred aspect of the invention, in the aforementioned control then it is also investigated which possibilities the respective service platform has for receiving and/or processing services, whereby the service controller, in function thereof, takes an action towards the respective service platform.

Preferably, thus, as a result of said control, one of the
following actions will be taken:

- supplying the required services when the service platform is able to receive and to process them;
- supplying software which allows to receive and/or process the required services, if this software is not yet available on the service platform.

In a practical form of embodiment, preceding the supply of services and/or supply of software, by means of a communication between the service controller and the service platform, a request is launched to the user whether this latter consents to the fact that the respective services and/or software, whether or not against payment, are delivered, whereby the user then possibly is offered a choice between different possibilities which can be made available on his service platform. In this manner, the user decides whether certain actions are taken or not.

It is clear that, according to a variant, in respect to one or more, or possibly all actions, an automatic action can be taken, too; in other words, that the service controller, if necessary or required, acts automatically, such that, for example, when a certain software is lacking on a service platform, it will be supplied and installed automatically.

The service controller can exert different functions. Preferably, however, he performs at least one of the following activities:

- commercializing the services by advertizing and offering them;
- registration of service platforms and users;
- registrations in respect to connected service
providers;
- optimization of the services towards the user and/or one or more service platforms;
- personalization of the services towards the users;
- installing services on one or more service platforms;
- actualizing installed telematics applications on the service platforms;
- controlling the use of the telematics services in administrative and financial respect.

In the most preferred form of embodiment, each service platform will be known with the service controller by means of a platform identification and a platform profile. This platform profile is a collection of characteristics which pertains to the respective service platform, such that the service controller, by means thereof, can communicate with the respective service platform in an optimized manner.

According to a variant, each user will be known with the service controller on the basis of a user identification and a user profile. In this user profile, for example, data are included relating to the service platforms applied by the user, the services for which the user is enrolled and/or which he uses, and the sphere of interest named by the user in respect to the desired telematics services.

According to still another preferred characteristic, when a user requests a service for several service platforms, the service controller, for each of these platforms, will separately determine the most suitable version of user software and/or download it to the respective service platforms. As a consequence thereof, the advantage is
created that a user, when taking a new possibility on one of his service platforms into use, also will be able to apply the respective application on the other service platforms named by him.

Further, it is preferred that the service controller, for providing a certain telematics service, determines the most suitable service provider within the offered range of different service providers who can provide this service, thereby taking into account one or more parameters which are in function of the user and/or the service platform, such as language choice of the user, the geographical position of the service platform or of the user, the time and so on. In this manner, an automatic optimization towards the user is taking place.

The aforementioned use of user and/or platform profiles allows that, according to a preferred characteristic of the invention, a new service or an actualized service can be advertized by the service controller on all service platforms, which, on the basis of user and/or platform profiles, are to be considered for this service, whereby these services possibly are advertized in a version of the user software most suitable for the respective service platform. Thus, the user automatically is informed on the latest developments in the field of offered services and, if desired, he can revalue his service platform with the most recent software, at all times, so to say, at the touch of a button.

Possibly, the service controller can combine several services from one and the same service provider or from several service providers to a new service and offer this as such to the users and to other service providers.

Thus, also an exchange of services between different
service providers is made possible, by which a basis is founded for "business to business" activities between different service providers or, in a broader range, even between different companies.

Preferably, the service controller realizes a communication connection between the service platform of the user and the service platform of the service provider, in a transparent manner, which enables an optimum interaction between the aforementioned basic software and the user software.

In a practical form of embodiment, the service controller realizes said communication connection by means of a network of mutually connected central communication centers, which have communication channels of different kind and which are distributed geographically, such that they each cover a certain geographic area, whereby the service provider, by means of certain communication channels, is in connection with one or more central communication centers, whereas the service platforms of the users, by means of other communication channels, are in connection with the central communication center of the area, and whereby it is decided automatically and in a transparent manner through which communication channels the respective communication connection is realized. Such system with communication centers is described in the international patent application WO 00/48412, whereby the service platforms of the users are situated in vehicles.

In the present application, a similar system can be applied, which, however, is not limited to vehicles. The possibilities described in said document WO 00/48412 thus, in combination with the present invention, automatically have to be seen as incorporated in the present application.
Thus, actually different communication channels are used, however, this use is performed by said network, which also can be denominated as a "service delivery chain", in a transparent manner. The service developer, for example, must not know over which networks his service will be run. He uses communication which is offered to him by the "service delivery chain". The "service delivery chain" in its turn provides for the necessary functionality in order to actually have this communication take place over these different communication channels.

The "service delivery chain" thus can be seen as a supermarket of services, whereby the delivery of a service is as simple as consuming it. This includes that, by using the "service delivery chain", the service provider can develop a service, taking into account the communication, transparency of the networking, independence from the "business logic" and management of the services, without himself actually having to provide for the implementation. By this technique, the creating of services becomes substantially cheaper than this is the case nowadays. Thereby, the service developer can concentrate on his added value.

It is noted that the service controllers of the present invention hereby may consist of separate units or centers which, by means of one or more communication connections, can communicate with a central communication center, as well as may consist of a unit or center, whereby this unit or this center forms part of a central communication center.

It is clear that the aforementioned whole also can be equipped with several service controllers, whereby then, for example, each service controller covers his own area, either a geographic, a technological, or another area.
The invention also relates to a networking system for providing services, whereby this networking system comprises at least service providers, as well as service platforms situated at the users', with as a characteristic that this system is constructed such that it allows to realize the aforementioned method, more particularly comprises the means necessary to this end, and in particular the software.

Starting from the explanation relating to the method, the realization of these means is within the reach of each person skilled in the art.

With the intention of better showing the characteristics of the invention, hereafter, as an example without any limitative character, some preferred forms of embodiment are described, with reference to the accompanying drawings, wherein:

figure 1 represents a block diagram of a networking system according to the invention;
figure 2 represents a variant of the invention.

As represented in figure 1, a networking system according to the invention substantially consists of service providers 2, service platforms 3, which can be used by users 4, as well as one or more service controllers 5 which are placed centrally between the service providers 2 and the service platforms 3.

Between the service providers 2, the service controllers 5 and the service platforms 3, telecommunication connections 6 are possible, possibly by different communication channels 6A-6B-6C. Possibilities of different communication channels are, for example: communication via a cable network, long-distance wireless
communication, short-distance wireless communication by means of shortwave signals, communication by means of a cellular network, satellite communication, so-called "powerline", and so on.

The service providers 2 are, for example, producers of information sources or software packages.

The service platforms 3 also can be of different kind. In the example of figure 1, to this aim, for example, schematically a PC 7, a platform 8 in a vehicle and a hand-held computer 9 are represented, which, for example, belong to one user or can be consulted by such user, as well as still other service platforms 3 which are not specified in detail.

The working of the device simply can be derived from figure 1. Each service controller 5 can have a range of possibilities available by being able to communicate with different service providers 2. These service controllers 5 offer the different services in an optimum manner to the service platforms 3 of the users 4, who can make their choice therefrom.

In that, as aforementioned, preferably there is an interactive cooperation between the service platforms 3 and the service controllers 5, these latter can exert a control on the possibilities of the service platforms 3 and, in function thereof, exclusively transmit the suitable information and/or information in a suitable form to the service platform, such that the service platforms 3 exclusively receive useful data and no burden of redundant data must be taken up in these latter.

The interaction also allows that service controllers 5 can perform actions, for example, that they can download
software, whether or not originating from one of the service providers 2, onto the respective service platform 3.

As explained in the introduction, such service controller 5 can provide for that, when a user 4 requests a service on one of his service platforms 3, for example, the aforementioned PC 7, this service also automatically is available on other service platforms 3 of this user 4, in this case, for example, the platform 8 in said vehicle and the hand-held computer 9. The service controller 5 then provides for that these service platforms 3 obtain the respective information in the necessary manner, adapted to the possibilities of the respective service platform 3. In the case of a hand-held computer 9, the transmitted information, for example, can be automatically compressed and/or shortened, in order to be still useful, contrary to the case of a PC 7, whereby the respective information then can be fully transmitted.

It is noted that in figure 1, the service controllers 5 can be realized as central communication centers, which, apart from said control function, also fulfill a similar function, as described in respect to the central communication centers mentioned in WO 00/48412.

Figure 2 represents a variant whereby the service providers 5 themselves do not function as central communication centers, however, are in connection with central communication centers 10, which function as described in WO 00/48412. In other words, these central communication centers 10 automatically decide by which communication channel 6A-6B-6C each respective communication between the respective composing parts of the networking system is realized.
All service platforms, in each of the three levels of said networking system 1, to wit on the level of the service providers 2, of the service controllers 5 and of the users 4, and upon which the service controller wants to exert a control function, preferably use a software environment which is based on a common standard and which allows to offer and to control services.

An example of such standard is the so-called OSGi-standard, which is well-known in telematics, defined by the "Open Service Gateway Initiative".

This standard preferably will be based on a platform-independent programming language, such as, for example, JAVA, as a result of which a very suitable software environment can be obtained, which enables interaction between the various types of service platforms within the networking system 1.

Said software environment offers the service providers 2 a consistent and concise programming model, which offers to divide a software program of an offered service into smaller independent constructive parts, which each represent a well-defined, though limited, service, and which can be downloaded to the service platform 3 of a user 4, where they can install themselves in the form of a user software.

Thus, each service provider 2 can compose a well-defined service in a very flexible manner, modularly, and in case also broaden it.

To this aim, the service provider 2 has a kind of kit, with which, based on the aforementioned constructive parts, he can compose and develop a service, in particular different versions of a respective service,
whereby each version, due to the use of a platform emulation software, is optimized for a well-defined type of service platform (7, 8, 9) of the user 4.

These different software versions of one and the same service are provided to the service controller 5 in the form of a service package or a so-called CAR file (Component ARchive file), which service controller 5 stores it and who, in his turn, upon request of a user 4, who wants to use this service, will offer the most suitable version of this service and, if desired, also will download it to the service platform 3 of the respective user 4.

When a service provider 2 provides the service controller (5) with a new or an actualized service package with new and/or improved bundles, this service controller will:

- advertize the newly added and/or improved software versions of a service as new or actualized services on the service platforms 3 of the users 4, who, in function of their user and/or platform profile, come into consideration; and/or

- combine the newly added software versions of a service with existing or new software versions of the same or other services to new or improved services and also advertize those as such.

In fact, a service is realized by the interaction between, on one hand, a basic software which is installed on the service platform of the service provider 2, and, on the other hand, said user software on the service platform 3 of the user 4 in the form of one or more constructive parts.
The user software is completed by the service controller 5 by specific control software, which must enable the communication with the service controller 5, as well as the administrative follow-up of the use of the services, as well the own services added by the service controller 5, amongst others, with:

- the "terminal bootstrap", which is a minimum user software which, at a first application of a user 4, is installed by the service controller 5 on the service platform 3 of the user 4, in order to enable a first communication between this user 4 and the service controller 5;
- the "service browser", which, in fact, is the user interface which allows to apply the offered services in an interactive manner;
- the "identification" software, which must allow that a user, for example, must input an identification code before he can use a certain service;
- the "logging" software, which, for example, keeps registering the usage time of a service;
- the "profiling" software, whereby the user, for example, can name the application domains which pertain to his specific range of interest;
- and the like.

Also, it is possible to install a "watchdog" software in the networking system, whereby, for example, the user or the service provider can instruct the service controller to observe a certain operation and to inform him if a certain incident takes place.

The service controller also can be involved in the area of the safety of the telecommunication connections and of the offered information and services by performing, for
example, a virus control, or by interrupting the information flow if, for example, fraud and the like are presumed.

It is noted that a user has a free choice, for example, between the offer of one well-defined service controller, however, that he also possibly can choose between several service controllers.

Summarized, it can be stated that the networking system, or thus the "service delivery chain" of the invention offers a solution for the disadvantages of the systems described in the introduction, whereby:
- software services are offered to the user;
- a completion is offered to controlling these software services, the deploying at a distance and lifecycle management (installing, upgrading, removal) of these software services is offered on a range of different target platforms, in a transparent manner;
- one and the same standard interface mechanism is offered for the various software services;
- by the platform and user profiles, a dynamic match takes place between the service characteristics and the platform characteristics;
- software services and processes can act flexibly to unanticipated changes of their environment, as a result of which they can grow and evaluate over the time;
- use is made of a central-based evolution (SOAP is client-based, component binding can be obtained by COM, DCOM);
- an uncoupling takes place between the "business logic" and the "software code", whereby the user is screened from the evolution of standards between the software services, such as XML, SOAP, custom API's, Java, UDDI, and such.
Important characteristics and advantages following from the preceding description are summarized as follows:

- the invention uses a network system with three levels, consisting of service providers, service controllers and users, which, as discussed, offers undisputable advantages in comparison to systems with two levels, such as, for example, known from US 5,835,911 and EP 0,753,811;

- the invention relates to delivering software services, which means that software is not only downloaded and started on a service platform of a user, but that this software moreover also can be controlled and operated at a distance by the service controller, such that, on one hand, a dynamic "match" or, thus, cooperation can take place between the offered services and the environment (available service platform, geographical location, time, and so on) of a user who wants to use a certain service, and, on the other hand, the service controller, for example, can actively interact with the service platform of the user in order to, for example, next to many other possible applications, install the software, upgrade it, remove it, switch it off in case of virus risk or when fraud is presumed, and so on, from a distance; this implies a continuous follow-up by the service controller, rather than a single download of software, as known from US 5,835,911, EP 0,811,942, EP 0,753,811, WO 99/61983 and EP 1,113,359;

- the invention uses one and the same standard interface mechanism with a "framework" which is operative on the service platform of the user and which controls the already described constructive software parts on this platform in a dynamic manner, couples them together and has them cooperate for
delivering a requested service, as a result of which services can be composed on the service platform of the user himself in a very flexible manner, which services moreover need little storage and calculation capacity, which is in utter contrast to applications, such as described in US 5,835,911, EP 0,811,942, WO 99/61983 and EP 1,113,359.

The present invention is in no way limited to the forms of embodiment described as an example and represented in the figures; on the contrary, such method and such networking system can be realized according to different variants, without leaving the scope of the invention.
Claims.

1.- Method for providing services, including possibly also the announcement and/or the installation and/or the maintenance and/or the removal of services, whereby, by means of communication connections (6), communications are realized between service providers (2) and service platforms (3, 7, 8, 9), amongst others, at users’ (4), characterized in that the services are provided and controlled by means of an extern service controller (5) placed centrally between the service providers (2) and the users (4), whereby this method allows for that the service control can be realized as uncoupled from the offered services and also allows for that the service controller (5) can combine different services of one or more service providers (2) to a new or adapted service.

2.- Method according to claim 1, characterized in that the service provider (2) provides a well-defined service to the service controller (5) in the form of, on one hand, different versions of a user software, whereby each version is optimized for a well-defined service platform (3, 7, 8, 9) and whereby the service controller (5), before making the service available for the user, can download the suitable version and install it on the respective service platforms (3, 7, 8, 9), and, on the other hand, a separate control software, in which, for example, price conditions, usage conditions, licences and such are determined.

3.- Method according to claim 1 or 2, characterized in that it provides in an interaction between at least two of the following elements: one or more service providers (2), one or more service platforms (3, 7, 8, 9) for users (4), and one or more service controllers (5), more
particularly in an interaction between the software of these elements.

4.- Method according to claim 3, characterized in that said interaction between the service controller (5) and the user (4) at least consists in that, by the service controller (5), a control is exerted upon the possibilities of a respective service platform (3, 7, 8, 9) of the user (4).

5.- Method according to claim 4, characterized in that, during said control, it is investigated which possibilities the respective service platform (3, 7, 8, 9) has available for receiving and/or processing services, whereby the service controller (5), in function thereof, takes an action towards the respective service platform (3, 7, 8, 9).

6.- Method according to claim 5, characterized in that, as a result of the aforementioned control, one of the following actions is taken:
- supplying the requested services when the service platform (3, 7, 8, 9) is ready to receive and process them;
- supplying software which allows to receive and/or process the requested services, when this software is not yet available on the service platform (3, 7, 8, 9).

7.- Method according to claim 6, characterized in that, preceding the delivery of services and/or the delivery of software, by means of a communication between the service controller (5) and the service platform (3, 7, 8, 9), a request is launched to the user (4) whether the latter consents that the respective services and/or software are provided, whether or not against payment, whereby he
possibly is offered a choice between different possibilities which can be made available on his service platform (3, 7, 8, 9).

8.- Method according to any of the preceding claims, characterized in that the service controller (5) performs at least one of the following activities:
- commercializing the services by advertising and offering them;
- registration of service platforms (3, 7, 8, 9) and users (4);
- registrations relating to linked-up service providers (2);
- optimization of the services towards the user (4) and/or one or more service platforms (3, 7, 8, 9);
- personalization of the services towards the user (4);
- installing services on one or more service platforms (3, 7, 8, 9);
- actualizing installed telematics applications on the service platforms (3, 7, 8, 9);
- the administrative and financial follow-up of the use of the telematics services.

9.- Method according to any of the preceding claims, characterized in that each service platform (3, 7, 8, 9) is known with the service controller (5) by means of a platform identification and a platform profile.

10.- Method according to any of the preceding claims, characterized in that each user (4) is known with the service controller (5) on the basis of a user identification and a user profile.

11.- Method according to any of the preceding claims, characterized in that, when a user (4) requests a service for several service platforms (3, 7, 8, 9), the service
controller (5) will separately determine the most suitable version of user software and/or download it onto the respective service platforms (3, 7, 8, 9).

12.- Method according to any of the preceding claims, characterized in that the service controller (5), for delivering a well-defined telematics service, determines the most suitable service provider (2) amongst the offering range of different service providers (2) who can deliver this service, thereby taking into account one or more parameters which are in function of the user (4) and/or the service platform (3, 7, 8, 9), such as language choice of the user (4), the geographical position of the service platform (3, 7, 8, 9) or of the user (4), the time and such.

13.- Method according to any of the preceding claims, characterized in that a new service or an actualized service is advertized by the service controller on all service platforms (3, 7, 8, 9), which, based upon user profiles and/or platform profiles, come into consideration for this service, and whereby these services possibly are advertized in a version of the user software most suitable for the service platform (3, 7, 8, 9) concerned.

14.- Method according to any of the preceding claims, characterized in that the service controller (5), in a transparent manner, realizes a communication connection (6) in order to enable the interaction between one or more users (4) and one or more service providers (2).

15.- Method according to any of the preceding claims, characterized in that the service controller (5) realizes the aforementioned communication connection (6) by means of a network (1) of mutually connected central
communication centers (10) having different communication channels (6A, 6B, 6C) of different kind and being geographically distributed, such that they each cover a certain geographic area, whereby the service provider (2), by means of certain communication channels (6A, 6B, 6C) is in connection with a central communication center (10), whereas the service platform (3, 7, 8, 9) of the user (4), by other communication channels (6A, 6B, 6C), is in connection with the central communication center (10) of the area, and where it is automatically decided by means of which communication channels (6A, 6B, 6C) the respective communication connection (6) is realized.

16.- Networking system for providing services, characterized in that this system provides in a combination of service providers (2), service platforms (3, 7, 8, 9) situated at the users' (4), one or more service controllers (5) placed centrally between the service providers (2) and the service platforms (3, 7, 8, 9), as well as means and in particular software allowing to realize the method according to any of the claims 1 to 15.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F9/445

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)
IPC 7 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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents:

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"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

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Date of the actual completion of the international search
27 November 2002

Date of mailing of the international search report
10/12/2002

Authorized officer
Bijn, K

Form PCT/AB/210 (second sheet) (July 1980)
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