TITLE SOFTWARE FOR REPORTING QUANTITIES.

FIELD

This invention relates to computer software in an application of reporting activity within a set of disparate client businesses; to computer software that automatically retrieves and securely forwards measures of activity (including but not limited to money) from each business to a financial institution, and to computer software that converts such measures of activity into a common format.

BACKGROUND

Several areas of need for an invention of this type are apparent.

1. A financial institution (herein called "the supplier") such as a bank, finance company, invoice discounter/financier, factor, asset-based lender, or the like is likely to require to monitor a client's business closely, such as by looking at individual records on a day-to-day basis. For example a factoring business purchases a client's debts (accounts receivable) and would need to know in an efficient manner what these are on a day-to-day basis, as well as to assess the risks involved. A bank that has invested in a business would need to monitor its exposure. At this time all known reporting of this type uses the client's staff to extract data and then prepare and send a report to the financial institution from time to time, which is labour-intensive, may be onerous in terms of deadlines, and might allow data to be entered incorrectly, or parts to be inadvertently or otherwise included or deleted to the possible detriment of either party. Analysis by the financial institution is typically labour-intensive and takes time, so that the objective of speedy computation is difficult to achieve and could almost never be less than two days behind real time.

2. A number of hotels (for example), acquired into a chain, may continue to use legacy software yet there is a need by the owner of the chain to be aware, on a day-to-day basis, of occupancy, stocks and financial activities in order to co-ordinate activities, forecast needs for change, and to quickly discover discrepancies even such as embezzlement. The hotels may be all around the world and may wish to make their reports at any time, as seen at the premises of the owner.

3. As a final example, a number of factories sharing common ownership and processing primary produce (such as dairy products; butter, milk powder and the like) and hence distributed throughout a country, may continue to use different types of software yet there is a need by the head office to be aware, on a day-to-day basis, of production, stocks, breakdowns, environmental or other effects on supplies to the factory, longer term trends, and financial activities.

Furthermore, different countries have a variety of business practices, some as a result of custom or business environment, and others as a result of legal requirements. In one country, a business may have just one factor, and in another country a business might deal with one factor for one group of invoices and other factors for further groups. Factoring itself is much more frequently used in some countries than in others. The business of factoring overcomes, for the client, the debt problem caused by the normally delayed payment of invoices.

The inventors have realised that there is a need for standard status reports to be conveniently provided from any client to a specified supplier of financial services in an automatic and regularised manner. Human involvement runs the risk of being inaccurate (unintentionally or otherwise), is available mainly during local business hours, and is costly and slow, so is best minimised. Communication of the reports should of course be over a secure channel in order to prevent industrial espionage. Secure channels can be arranged, as is well known to those skilled in these matters, within the environment of the World Wide Web or Internet. Each client would expect to have the freedom to choose its own computer accounting and like software such as products written under any of the operating systems Windows, Macintosh or Linux/Unix. These also reflect choices of hardware. Various versions or updates of any selected software product exist and it is believed that at least 20% of bankers' clients change their version at least in any one year. Clearly, the software of this invention that is used at both the client end and the institution end of the secure channel should be able to cope with such differences so that proper operation is maintained in any working environment.

Preferably, the process of communicating a report to the supplier includes steps of acquiring and reconfiguring the incoming data from each of many independent sources

into a form that is compatible with the institution's computer(s) preferably before transmission. Also desirable is a process to convert the incoming data into a human-readable format for the benefit of the supplier or his downstream associates.

PRIOR ART

B2B software is known, and so is software for use in a factoring business. A search in the web site "Yahoo small business" for "B2B software factoring" returned 4 US companies. The inventors are well aware of, and are in touch with those companies and it is understood that none of them offer the facilities contained in the present invention.

Ruby *et al*, in US2005/0060284 describes a "management and reporting system and process for use with multiple disparate databases". This invention is in many ways the opposite of the present invention since Ruby imports a number of legacy databases through a converter into a standard (such as XML) format and then allows remote users to read the data from a mainframe type of computer. An example difference from Ruby *et al* is that the present invention leaves the remote user's data in its own "home" premises where real-time updates continue to be applied normally in the course of business, and uses an implanted, customised extractor to deliver just the relevant material into a remote supervisory computer for purposes including, but not limited to, provision of a factoring service on issued invoices. Data may be returned to the remote user from the supervisory computer or, by arrangement, from a downstream service provider.

OBJECT

It is an object of this invention to provide means for reporting recent changes in data held by a client within a computer system to a contracted supplier of products or services related to that data, or at least to provide the public with a useful choice.

STATEMENT OF INVENTION

In a first broad aspect the invention provides quantity reporting and management software comprising a set of server software held at a service supplier or management site, capable of exchanging data with at least one of a plurality of compatible client software installations each installed within existing client software held at a client site ***wherein*** each installation of the compatible client software that is installed within a

corresponding client's existing computer system includes event-driven means capable of causing the client software to become active, without human intervention, when a predetermined event occurs; the compatible client software is programmed in order to select and extract data representing at least one measurable parameter of interest from within the corresponding client's existing computer or computer system and thereby create a report, correlated to the corresponding client, describing the current status of the at least one parameter of interest to the service supplier; the compatible client software is capable of consigning the report over a secure channel to compatible server software held within the service supplier's computer, the server software being designed to receive and convert the report from the or each corresponding client into a standard form so that a service supplier may evaluate the report and so that the accuracy of the report cannot be compromised by modification of the contents of the report.

Preferably the software for extracting data and creating reports is written so that it may be run automatically - at usually a predetermined time of day or night - so that the reports comprises a minimal load on the client.

In a first related aspect the invention provides event-driven means driven by at least one variable preselected from the range of: a specified time of day, a minimum value, within a specified interval of time, of the measurable parameter of interest, a maximum value within a specified interval of time, of the measurable parameter of interest, a specified number of changes made to the measurable parameter of interest since a previous event; or a single large change made to the measurable parameter of interest.

In a second related aspect the invention provides quantity reporting and management software, wherein a representation of the parameter of interest within the created report may be predetermined to comprise one or more of: a current total number for the measurable parameter of interest, a statistical description of the measurable parameter of interest over a defined period of time, or all instances of the measurable parameter of interest over a defined period of time, so that, in the latter case, the service supplier has access to all the information about the measurable parameter of interest.

Preferably, the software of this invention is adapted to handle information collected from a plurality of client computers or computer systems and maintain separated data within

the supplier's computer so that the supplier is presented with a corresponding plurality of reports.

In a third related aspect the or each client's reports are further reduced by the report presenting software of this invention into a summary and/or graphical form that may be forwarded to downstream suppliers of services to the supplier.

Preferably the software for extracting data and creating reports is written in a platform-independent language so that one version of the software will suffice for all clients.

Optionally the software for presenting reports, run within the supplier's software, is written in a platform-independent language so that one version of the software will suffice for all suppliers.

Preferably the at least one parameter of interest describes at least one selected financial asset of the client as represented within the existing client software held at a client site, selected from a range including: invoices, credit notes, cash, journals, and accounts receivable, as at the moment when the event-driven means determined that an event had occurred.

Alternatively the at least one parameter of interest describes at least one selected non-monetary asset of the client as represented within the existing client software held at a client site, selected from a range including: man-hours used, raw materials, incoming jobs, intermediate products, final products held, final products shipped, energy consumption, waste materials produced, as at the moment when the event-driven means determined that an event had occurred.

In a second broad aspect the invention provides quantity reporting and management software as ***previously described in this section, wherein*** the compatible client software held at any one client site may be accessed over a secure channel and modified on behalf of the service provider in order to change predetermined variables including: the nature of an initiating event, control over creation and sending of a report describing the or each parameter of interest and/or in order to accommodate an upgrade, revision, or modification to the client software.

In a third broad aspect the invention provides quantity reporting and management

software as ***previously described in this section, wherein*** a downstream supplier having an arrangement to service one or more clients whose software is connected to the service provider, is provided with access to one or more reports for one or more of those clients; the reports having attributes including (a) automatic collection and conversion, (b) standardised presentation, correlated to the corresponding client, describing the current status of the at least one parameter of interest to the service supplier; so that the downstream supplier may evaluate the state of the client with respect to the at least one parameter of interest.

Preferably the flow of data within the secure channel between the compatible client software, the compatible server software, and the downstream supplier is bidirectional, so that data may be returned through the compatible client software to the existing client software.

In a fourth broad aspect this invention provides a set of inter-related software capable of being held within a client's computer or computer system, of being bootstrapped into activity at an internally determined time and proceeding to extract data and thereby create a report describing to a supplier the assets of the client, including, without limit, money and accounts receivable, as at the internally determined time and consigning the report over a secure channel to report presenting software held within a supplier's computer within which the client's assets become represented by complementary software in a standard form, so that the supplier comes into possession of up-to-date information about the client and is able to make management decisions concerning asset-related services supplied by the supplier to the client.

Preferably the software for extracting data and creating reports is written so that it will operate under an environment in which it may be installed in the client's computer or computer system via the secure channel.

Preferably the software for extracting data and creating reports is written in a plurality of versions capable of taking data held as files under an existing one of a variety of possible data handling / accounting software packages, and reducing that data into a common format, so that the software presents all clients' reports in a common format and comparisons between clients can be made.

PREFERRED EMBODIMENT

The description of the invention to be provided herein is given purely by way of example and is not to be taken in any way as limiting the scope or extent of the invention.

DRAWINGS

Fig 1: is a block diagram showing the flow of data.

Fig 2: shows extensions of Fig 1 that encompass a plurality of end users and also to reach downstream service suppliers.

This invention illustrates the use of computers and computer software for the repeated acquisition and processing of data obtained from a customer's computer in an almost real-time form, where it would be extremely infeasible (though not impossible) to use manual data extraction on request at any time, encoding and transmission, and conversely and optionally, reception of processed data, decoding of the data, and return of the clear-form data into the customer's computer. It should be noted that although the procedures are related to the business of factoring, the principles of the invention may be extended in order to overcome a variety of management problems that arise when there is a need for integration, supervision, or management of a business that is conducted at various sites, many or all of which happen to have individual peculiarities such as in the kinds of software that they use.

For example, consider a number of hotels that have been acquired by a chain. Each one may continue to use legacy software and its own management system yet there is a need by the owner/overall manager of the chain to be aware, on a day-to-day basis, of matters such as occupancy, stocks and financial activities in order to co-ordinate services offered, forecast needs for change, and to quickly discover discrepancies even such as embezzlement. The hotels may be located all around the world and may wish to make their reports at any local time.

A financial institution (herein called "the supplier") such as a bank, finance company, invoice discounter/financier, factor, asset-based lender, or the like is likely to require to monitor a client's business closely, such as by looking at individual records on a day-to-

day basis. The inventors are involved with factoring. For example a factoring business purchases a client's debts (accounts receivable) and would need to know in an efficient manner what these are on a day-to-day basis, in order to purchase in a timely manner, as well as to assess the risks involved. A bank that has lent money to a business would need to monitor its exposure. At this time all known reporting of this type relies on the client's staff to extract data and then prepare and send a report to the financial institution from time to time, which is labour-intensive, may be onerous in terms of deadlines, and might allow data to be entered incorrectly by accident or deliberately or otherwise included or deleted to the possible detriment of either party. Analysis after receipt by the financial institution is typically labour-intensive and takes time, so that the objective of speedy computation is difficult to achieve and could almost never be less than two days behind real time. Speedy computation becomes more relevant as all elements the world's economy becomes more closely linked by the World-wide Web.

EXAMPLE 1

See Fig 2 for a broader view of a typical layout as shown in Fig 1. In Fig 2, a range of clients each using a factoring service (for example) are shown as 100A.. 100F and the different shading used in each symbolises the different types or versions of database or accounting software that each client uses. The "Hermes" software (see below) added into each client's computer system is represented within each client by the small box labelled 104/105 (with reference to client 100A). This software may be accessed from time to time by a programming supplier (120) for reasons such as to change the content of uploaded data, to change the event that triggers uploading, or to cope with different database software used by the particular client. Bidirectional communications are indicated diagrammatically in Fig 2 by the use of pairs of lines and directional arrows as at 107. A server providing all the clients with separated financial services is indicated at 130. Two downstream service suppliers (which may for example be firms of accountants or other financial advisors) are shown as 140A and 140B.

In Fig 1, the rectangle 100 (CL) represents an example client's computer or computer system (networked or otherwise grouped computers are included for the purpose of this specification within the concept of "a computer"), 120 (PM) represents an occasionally

invoked programming service that will be used as previously described. 130 (SU) represents the service supplier's computer or computer system, and 140 (DS) represents an optional downstream supplier's computer or computer system. 107, 121 and 143 refer to secure communications channels which are likely to be temporary links made over the World-wide Web protected by appropriately strong encryption; examples of which are described below.

The modified installation in the client's computer.

A currently popular set of software tools is referred to in the approach that is described here, although it will be apparent to a reader skilled in the art that alternative software tools to those described may accomplish the same tasks.

The client's existing accounting or database software 103 nowadays tends to be a package such as "Sage ACCPAK" or "MYOB" (both being trade marks and names of products). These are often used within small to medium-sized businesses in New Zealand and elsewhere, as a particular version or update. The software 103 may be considered as a database manager for this purpose, maintaining a database 102 which accepts, in the usual way, descriptive inputs 101 from keyboard entry or by automatic means as is customary concerning items to be monitored quantitatively as described elsewhere in this specification. The quantities may represent monetary units, or describe a category, or manufactured items, or other materials. Most accounting or database packages intentionally provide or publish an interface for use by other programmes in the form of (usually) an open database connectivity (ODBC) interface; others include Java database connectivity (JDBC) and COM. Widespread use of those types of interface should mean that they will be retained over time. Another option is structured query language (SQL) interfaces.

The software of this invention requires the installation of one or more extractors 104 written for the purpose in a programming language in order to create ODBC and JDBC (open, and Java, examples respectively) modules in the client's computer 100. Such extractors are driven by a small bootstrap or initiating program 105, also part of the invention, that will initiate the desired extraction activity. The installation (104, 105) which the or each client will have agreed to install in his system as part of a contractual

relationship is herein termed the "Hermes Client" software. Part 105 has the task of awakening at a specified time and making use of a (usually existing) communications software block 106 over a secure link 107 to reach a remote server here called a "Hermes Server" held at the supplier's computer 130. It is considered preferable to have the "Hermes Client" empowered to initiate any data transmission that sends data to the supplier's computer according for example to a system clock time, rather than to have the client software configured to obey instructions to send data to any requesting external computer, which might be an impostor. In addition, the automatic nature of this software is convenient in that no human intervention is required. Suppose that a late-night download is requested, this would involve extra payment to those involved in actually preparing a manual version of a report. Avoiding human intervention and the associated costs facilitates "downward migration" of the services provided by the invention into smaller businesses. A great deal of time is saved. Also, in the provision of services such as factoring on a high volume of relatively small accounts, operating costs such as labour might if not controlled be likely to use up the profit margin.

The report may be made using a dial-up modem rather than use a less secure broad-band connection which is always connected. In some installations it would be more convenient to file a daily report in the late evening after all data entry has been completed, but in other installations the report may be made at any time. Some businesses are continuously open. In some cases a report may be filed as soon as a certain number or amount of transactions have occurred. Frequent reporting and timely indication of any discrepancy may reduce the exposure of a bank or factor or other institution. Conventional use of fire walls and encryption would be sustained.

At any instance of contact from block 106 in the client's computer the Hermes Server 130 or the programme source 120 may also download data to the Hermes Client within box 100. Programme source data may include (for example) alterations to match new kinds or versions of software, updated database software, application of bug fixes, or instructions to collect data of a scope or in a manner different to that which was collected previously. This process avoids physical visits to amend software. The source of such alterations is here distinguished as separate block 120 - programme source - although it may be preferably a service to be provided only from within the supplier's computer

system 130 - as provided for in Fig 2 - in order to maintain security by recording all changes. Otherwise a hacker could attempt to deposit his software in place of the legitimate bootstrap module.

When in use, the appropriate extractor(s) 104 will search through one or more databases 102 including, for example, those holding "Accounts receivable" information, or stocks of items. The specific databases to be the subject of reports would depend on the type of financial service provided by the supplier and the configuration of the client's databases. Factoring (which is one application of the invention) tends to be most relevant where there is a relatively large volume of transactions, the nature of which does not change much from day to day. The extractor(s) 104 would extract the data from the client's databases and convert the required fields for manipulation, encoding, and transmission. For example only those records that have been altered since a previous extraction would be extracted for forwarding over a secure channel 107 to the supplier's computer 130. Secure channels can be obtained by using a secure variant of the Internet such as secure HTTP (https...) or just a secure socket layer protocol. Passwords may be used. One form of secure encoding is by means of a public key/private key algorithm such as RSA (Rivest Shamir *et al*) or PGP ("Pretty Good Privacy"), which also authenticate the identity of the sender. In some circumstances physical media may be couriered, but there is a measurable risk of loss or theft of data as well as an inherent time delay that counteracts some benefits of the invention.

Because contact is (preferably) initiated only from within the client's computer, the client's system and the information carried therein is protected from unauthorised access such as by industrial espionage, endeavouring to ascertain the client's financial status. Of course there are always other security risks, quite outside this invention, such as that software may be sent from a hacker to reside within the client's computer, such as within a "cookie" in order to report on any matter, or that simple telephone tapping may return data to be decoded by a hacker or thief at leisure. Most clients would already have an active risk review policy and have adequate security measures installed such as firewalls.

Once secure contact is made with the supplier's computer 130 through communications software 131 over the secure channel, the extractor 104 transmits the selected data from

the client's existing accounting software to the software (shown as blocks 132-135) within the supplier's computer. Block 132 holds the initial download obtained from the identified client. An individual's data is manipulated 133 in order to standardise the received information according to the supplier's existing software or procedures and it is then used for existing and/or enhanced reporting purposes. It is possible for the supplier to run a ledger 134 that mimics the main and subsidiary ledgers such as accounts receivable, stock, bank accounts, etc of the client's finances and to report on any discrepancies between the client's ledger and that held and updated within the supplier's computer. This is useful when for example a bank wishes to maintain a close watch over its securities. Module 135 refers in general to human-optimised displays which may be in the form of graphs or printouts that may highlight and/or analyse discrepancies between present activity and either past activity or expected activity. Expected activity may be a statistically valid average of some or all other clients' activity.

If desired, a third party (140 in Fig 1, 140A and 140B in Fig 2) herein called a "Downstream Supplier" should also have access to the data or a summary thereof. Typical third party functions are as financial advisors or accounting services which may extend to a transaction-by-transaction reconciliation of the flow of money. Again, advantages of the invention such as convenience, accuracy, and standardisation irrespective of the actual client software is an advantage to the third party. In box 140 (Fig 1) block 141 is a communications module responsible for encoding or decoding information and block 142 broadly represents all third party functions that would be applied for a particular client's needs. One type of display block 142 is called a "dashboard" in relation to a capacity to present an overall picture in an easily assimilated form, usually with graphics and/or hypertext links to enable details to be displayed. The dashboard may be generated within block 130 or generated within block 140 - in which case the third party provider has better control over the presentation.

All software is preferably platform-independent. One way to achieve this goal is to use JAVA code which operates under at least Linux, Unix, Macintosh, or Windows environments. This characteristic means that, as far as possible, there is no need to access or to modify or customise the software to be installed in either the client's computer or in the supplier's computer. One advantage is that neither party is required to acquire and work

with a specified software package when entering an arrangement to use this software. Another advantage is that the code comprising part of this invention can be kept secret from potential hackers or copiers because there is no need to reveal the source code to a local installer. Nevertheless, standard obfuscation of code may be included. A third advantage is a reduction in site visits.

Furthermore, the invention is also made package independent (mainly within 104) so that no matter which software (such as MYOB) or version or configuration is used by the client, the information extracted from the client's computer is converted into a standard form before display in block 135 or perhaps being compared with other clients' activities as would be likely if all clients are (for example) members of a co-operating group such as a chain of hotels.

VARIATIONS

Rather than being solely concerned with applications related to accounting and the movement of money, the invention may be applied to the real-time reporting of other quantifiable items. For example, where there is a number of factories, franchises, or other businesses having common areas of business and sharing at least a proportion of common ownership, that may have different internal procedures and use different software, their management needs to be aware, on a day-to-day basis, of production, stocks, breakdowns, environmental or other effects on supplies to the factory, longer term trends, as well as financial matters.

The process for data transfer, so far referred to as being done on a 24-hour repetition rate, at night, could be repeated at any time particularly when a peak of transactions is under way, or if the character of the business is changing, or if more frequent reporting is required. Alternatively the process could be done less often such as weekly or monthly, or summary reporting could be interspersed with less frequent comprehensive reporting.

The same principles can be applied to any other measurable quantity, the amount of which is available within a computer environment, that is to be monitored frequently by an entity that needs to know the amounts of that measurable quantity. Examples include:

A power utility company could use this invention to monitor the power usage of a large customer and many versions of power usage could be monitored separately.

A car manufacturer could use this to monitor the status of a parts supplier's manufacturing chain in order to determine whether "just-in-time" manufacture/supply is now required. In this situation, information concerning remaining stocks of specific parts would be returned to the parts supplier so that the rate of manufacture can be adjusted.

Accountants and other business advisors could monitor financial performance of clients on an ongoing basis and make recommendations for change and/or for improvement.

Reporting by branch offices to head offices can be carried out efficiently and without significant cost or time requirements.

INDUSTRIAL APPLICABILITY and ADVANTAGES

The invention has the advantage of permitting a supplier of management or financial services to have up-to-date and accurate information concerning the (usually financial) activity of a consumer by a transparent means that requires no human intervention or labour costs (which might fall into the "overtime" category. In the provision of services such as factoring, operating costs such as labour might if not controlled be likely to use up the profit margin. Also, the profit margin might be lost if an adverse trend is not noticed sufficiently early and suitable action is taken.

Therefore an ability to compare the performance of one client against a collective statistic from like clients is an advantage.

The invention provides means that need only a minimum of interference with existing software and data, and can be used under any common operating environment.

Finally, it will be understood that the scope of this invention as described and/or illustrated herein is not limited to the specified embodiments. Those of skill will appreciate that various modifications, additions, known equivalents, and substitutions are possible without departing from the scope and spirit of the invention as set forth in the following claims.

Claim:

1. Quantity reporting and management software comprising a set of server software held at a service supplier or management site, capable of exchanging data with at least one of a plurality of compatible client software installations each installed within existing client software held at a client site ***characterised in that***

   a) each installation of the compatible client software that is installed within a corresponding client's existing computer system includes event-driven means capable of causing the client software to become active, without human intervention, when a predetermined event occurs;

   b) the compatible client software is programmed in order to select and extract data representing at least one measurable parameter of interest from within the corresponding client's existing computer or computer system and thereby create a report, correlated to the corresponding client, describing the current status of the at least one parameter of interest to the service supplier;

   c) the compatible client software is capable of consigning the report over a secure channel to compatible server software held within the service supplier's computer, the server software being designed to receive and convert the report from the or each corresponding client into a standard form so that a service supplier may evaluate the report and so that the accuracy of the report cannot be compromised by modification of the contents of the report.

2. Quantity reporting and management software as claimed in claim 1, ***characterised in that*** the event-driven means is driven by at least one variable preselected from the range of: a specified time of day, a minimum value, within a specified interval of time, of the measurable parameter of interest, a maximum value within a specified interval of time, of the measurable parameter of interest, a specified number of changes made to the measurable parameter of interest since a previous event; or a single large change made to the measurable parameter of interest.

3. Quantity reporting and management software as claimed in claim 2, ***characterised in that*** a representation of the parameter of interest within the created report may be predetermined to comprise one or more of:

   a) a current total number for the measurable parameter of interest

   b) a statistical description of the measurable parameter of interest over a defined period of time, or

   c) all instances of the measurable parameter of interest over a defined period of time, so that, in the latter case, the service supplier has access to all the information about the measurable parameter of interest.

4. Quantity reporting and management software as claimed in claim 3, ***characterised in that*** the at least one parameter of interest describes at least one selected financial asset of the client as represented within the existing client software held at a client site, selected from a range including: invoices, credit notes, cash, journals, and accounts receivable, as at the moment when the event-driven means determined that an event had occurred.

5. Quantity reporting and management software as claimed in claim 3, ***characterised in that*** the at least one parameter of interest describes at least one selected non-monetary asset of the client as represented within the existing client software held at a client site, selected from a range including: man-hours used, raw materials, incoming jobs, intermediate products, final products held, final products shipped, energy consumption, waste materials produced, as at the moment when the event-driven means determined that an event had occurred.

6. Quantity reporting and management software as claimed in any previous claim, ***characterised in that*** the compatible client software held at any one client site may be accessed over a secure channel and modified on behalf of the service provider in order to change predetermined variables including: the nature of an initiating event, control over creation and sending of a report describing the or each parameter of interest and/or in order to accommodate an upgrade, revision, or modification to the client software.

7. Quantity reporting and management software as claimed in any previous claim, ***characterised in that*** a downstream supplier having an arrangement to service one or more clients whose software is connected to the service provider, is provided with access to one or more reports for one or more of those clients; the reports having attributes including (a) automatic collection and conversion, (b) standardised presentation, correlated to the corresponding client, describing the current status of the at least one parameter of interest to the service supplier; so that the downstream supplier may evaluate the state of the client with respect to the at least one parameter of interest.

8. Quantity reporting and management software as claimed in claim 7, further ***characterised in that*** the flow of data within the secure channel between the compatible client software, the compatible server software, and the downstream supplier is bidirectional, so that data may be returned through the compatible client software to the existing client software.

9. Quantity reporting and management software as claimed in claim 7, further ***characterised in that*** a report presenting software of this invention is adapted to handle information collected from a plurality of client computers or computer systems and maintain separated data within the supplier's computer so that the supplier is presented with a corresponding plurality of reports.