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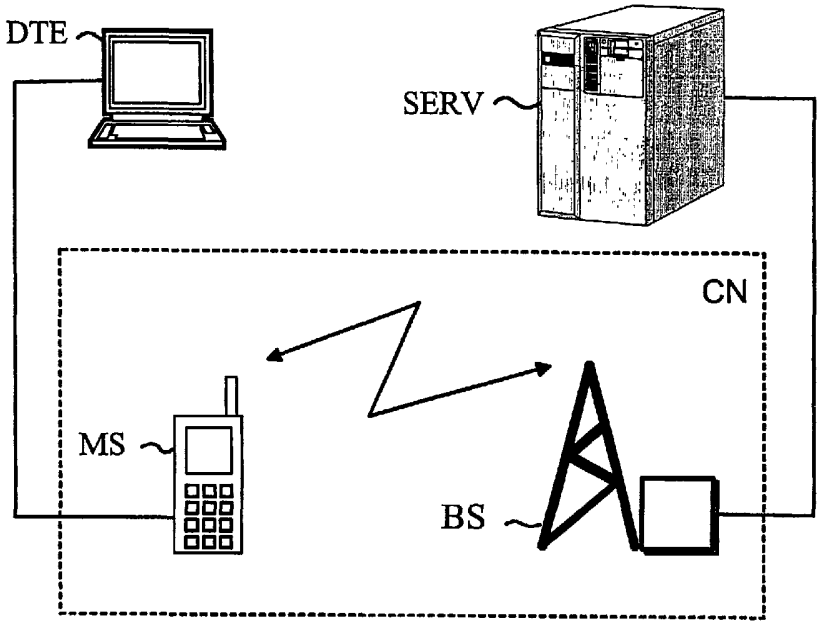
(54) **Title:** METHOD ANS SYSTEM FOR AN E-MAIL PROGRAM IN A TELEWORKING ENVIRONMENT




(57) **Abstract:** The invention relates to a method and system for working in a teleworking environment, which comprises a data terminal (DTE) provided with a client program and a server (SERV) provided with a server program and connected via a communication network (CN) to the data terminal (DTE). In the method, a specific-format e-mail message establishing a teleworking environment working platform is sent from the data terminal (DTE) to the server (SERV), and further the server (SERV) sends the specific-format e-mail message to the data terminals (DTE).

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# METHOD AND SYSTEM FOR AN E-MAIL PROGRAM IN A TELEWORKING ENVIRONMENT

The present invention relates to a method for forming a teleworking environment, said teleworking environment comprising a data terminal (DTE), which is provided with a client program, and a server (SERV), which is provided with a server program and connected to the data terminal (DTE) via a communication network (CN). The invention also relates to telecommunication systems. In particular, the invention relates to a method and system in which an e-mail message is sent from an e-mail program used as a client program, by means of which message a new teleworking environment working platform is established on the server by using the server program.

**PRIOR ART**

As a result of the fast development of information technology, there is a quest for more and more effective and better working methods. In national and international activities of enterprises, the importance of different teleworking environments is growing as an increasing number of employees are often traveling. Teleworking environments can also provide new possibilities regarding the working environment, such as working in conditions of clean atmosphere and nature.

In a prior-art solution, a teleworking environment consists of a computer connected to a communication network, e.g. the Internet, either via a mobile station or over a wired telecommunication network. Depending on the work assignment, the computer is provided with the commonest software needed for the work, such as e-mail, spreadsheet and word processing software. The interactive nature of the teleworking environment can be enhanced by using an internet browser

program, which can be used to send or receive information from the world, e.g. from the head office.

At present, e-mail is a platform for sending letters and attachments. As long as the sending of messages is only concerned with distribution of information, e-mail works perfectly. The present e-mail is an electric embodiment of traditional mail with post offices, mail-boxes, and letters opened on one's own desktop.

Patent specification WO 0225485 describes a component of a teleworking environment, a common working platform shared by a group. The working platform consists of a two-dimensional matrix readable with an Internet browser and having pigeonholes. When a person works on the teleworking environment working platform, he/she can write text or attach pictures or other information in digital form to the pigeonholes. The pigeonholes of the working platform of the teleworking environment can be read in real time by other persons working in the teleworking environment. Typically, the working platform of the teleworking environment is located on a server, to which a connection is established via the Internet, Intranet or some other communication link by means of a data terminal participating in a session. The above-described teleworking environment often consists of e.g. a portable computer or some other data terminal, a modem, a mobile station or some other appropriate communication device, and a server, where a teleworking environment working platform is established, e.g. by using an Internet page authoring program.

Establishing a working platform in a teleworking environment is a particularly problematic task. To establish a working platform in a teleworking environment, it is often necessary to use an Internet browser, for whose fast and smooth operation a powerful computer and a fast communication connection are

required. At least at present, the assembly consisting of a portable computer and a mobile station provides a relatively slow solution that is difficult for the user.

In a prior-art solution, a teleworking environment working platform is established using an Internet browser by filling in the fields required for the establishment of a working platform. In current mobile solutions, however, Internet connections are slow, which is why the establishment of a teleworking environment working platform is a difficult and time-consuming task.

EP patent specification EP 0581722 describes a method for setting up an interactive connection via e-mail. In the method of the reference specification, a first e-mail is sent by a server using an e-mail program tailored for this purpose. On the basis of the information contained in this e-mail, a multipoint communication connection for group work is set up. However, a problem with this reference specification is the fact that the information needed for the establishment of a work group has to be stored on the server. A further problem with the reference specification is that, if the desired party can not receive his e-mail, then an interactive connection can not be set up.

**BRIEF DESCRIPTION OF THE INVENTION**

The object of the invention is to eliminate or reduce the problems described above. An additional object of the invention is to produce a remarkably light method whereby a teleworking environment working platform is established easily and quickly via an e-mail message. A further object of the invention is to introduce a new dimension. E-mail is still used to send letters and attachments, but when it is necessary to start processing a matter as group work, the par-

ties involved in the work are given via e-mail a common, shared processing platform that keeps the information content in real time. Using the processing platform, the entire work is then carried out independently of time, place and hardware. The processing platform can be operated via a WAP terminal (WAP, Wireless Application Protocol), which means that it is possible to use WAP browsers designed for mobile stations and palm computers.

The method of the invention is characterized in that it comprises the steps of sending a specific-format e-mail message establishing a teleworking environment working platform from a data terminal (DTE) to a server and establishing a teleworking environment working platform on the server on the basis of the aforesaid specific-format e-mail message.

The invention also relates to a system for establishing a teleworking environment, which comprises a data terminal provided with a client program and a server provided with a server program and connected to the data terminal.

The system of the invention is characterized in that the system comprises means for sending an e-mail message establishing a teleworking environment working platform from the data terminal to the server and means for establishing a working platform on the server by using the e-mail message sent from the data terminal.

The invention further relates to a server for the establishment of a teleworking environment working platform. The server of the invention is characterized in that the server comprises means for receiving a message establishing a teleworking environment working platform from the data terminal, means for establishing a working platform on the server by using the aforesaid e-mail message, a mass storage for storing

the working platform on the server, and means for modifying the working platform on the server.

The invention allows easy establishment of a teleworking environment working platform by using an e-mail program for setting up the teleworking environment working platform.

The invention relates to a method for forming a teleworking environment. The method comprises a data terminal provided with a client program and a server provided with a server program and connected via a communication network to the data terminal. In the method, a specific-format e-mail message establishing a teleworking environment working platform is sent from the data terminal to the server. The invention further comprises preparing a specific-format e-mail message, transmitting the e-mail message to the server, receiving and reading the information of the e-mail message on the server, setting up a session comprising the working platform, sending invitations to the participants of the working platform and receiving an invitation to participate in the working platform session.

In an embodiment of the invention, a teleworking environment working platform is established on a server on the basis of an establishing e-mail message.

In an embodiment of the invention, a specific-format e-mail message comprising a link to a working platform located on the server is sent from the server to the data terminal. In another embodiment of the invention, one or more transitions are made via the link in the e-mail message to the working platform.

In an embodiment of the invention, when an e-mail message responding to the establishing e-mail message is opened, the working platform appears before the receiver.

In an embodiment of the invention, the act of opening an e-mail message responding to the establishing e-mail message starts a direct interactive processing connection between the data terminal and the server.

In an embodiment of the invention, the teleworking environment working platform is established so that the sender of the e-mail message is the president of the teleworking environment working platform. In another embodiment of the invention, the teleworking environment working platform is established so that the receivers of the e-mail message are full participants of the teleworking environment working platform. In an embodiment of the invention, the teleworking environment working platform is established so that the receivers of a copy of the e-mail message have the right to view the content of the teleworking environment working platform.

In an embodiment of the invention, the actual message in the e-mail message consists of a definition of the subject of the working platform.

In an embodiment of the invention, the e-mail program used is the Outlook Express e-mail program. In an embodiment of the invention, a person participates in the use of the working platform without an e-mail program.

In an embodiment of the invention, the browser program used on the teleworking environment working platform is an Internet browser program. The browser program may also be a browser program employing the Wireless Application Protocol (WAP).

In an embodiment of the invention, the e-mail program is provided with a special push button for an e-mail message establishing a teleworking environment working platform. By pressing the button, the e-mail message is converted into an e-mail message establishing a teleworking environment working platform and the

e-mail message establishing a teleworking environment working platform is sent.

In an embodiment of the invention, the teleworking environment working platform is opened in a separate browser window if the e-mail program receives an e-mail message relating to the teleworking environment.

In an embodiment of the invention, the sender of an e-mail message is assigned the right to use the teleworking environment working platform before the establishing e-mail message is sent. The teleworking environment working platform is often maintained in real time and it allows one or more teleworking persons to work on it simultaneously or non-simultaneously.

In an embodiment of the invention, the teleworking environment working platform is formed from a two-dimensional matrix.

The invention further comprises a system for establishing a teleworking environment working platform. The system comprises a data terminal provided with a client program and a server provided with a server program and connected to the data terminal. The system further comprises means for establishing a two-dimensional matrix on the server by the aid of an e-mail message sent from the data terminal.

In an embodiment of the invention, the system comprises means for sending an e-mail message establishing a teleworking environment working platform from the data terminal to the server.

In an embodiment of the invention, the system comprises an e-mail program in the data terminal and a web site server program on the server.

In an embodiment of the invention, the system comprises a web site for the teleworking environment working platform on the server. In another embodiment of the invention, the system comprises a mobile sta-

tion capable of communicating with the data terminal and a base station. In a third embodiment of the invention, the system comprises a base station communicating with the data terminal and the server.

As compared with prior art, the invention provides the advantage that the establishment of a teleworking environment working platform can be easily accomplished via an e-mail message. A further advantage of the invention is that the invention can be implemented for practically all e-mail programs used on personal computers (PC). Another advantage of the invention is that the solution is in no way associated with the e-mail server used. The role of the e-mail server remains exactly the same as at present. In addition to the right of utilizing the e-mail server, the sender must additionally have a right to utilize the server.

One of the advantages of the invention is that e-mail becomes an environment for the management of the processing of the matters of a team working in a decentralized manner. E-mail messages may be located either in the e-mail program and/or on the person's own computer. The receiver of an e-mail message reads messages using his/her own e-mail program.

Another advantage of the invention is that that the number of e-mail messages can be reduced. Whereas at present a message is sent to a number of people to start a discussion, the invention replaces the traditional e-mail message and the resulting mass of messages sent back and forth, by bringing before the receivers a common real-time working platform.

An advantage of the invention is that the members of the group can work on the set task independently of hardware, place and time. On the other hand, the members of the group can work simultaneously just as well as non-simultaneously.

**LIST OF ILLUSTRATIONS**

In the following, the invention will be described in detail by the aid of a few examples of its embodiments with reference to the attached drawing, wherein

Fig. 1 presents an illustration of a system according to the invention;

Fig. 2 presents a flow diagram of a method according to the invention;

Fig. 3 presents an embodiment of the invention;

Fig. 4 presents an embodiment of the invention;

Fig. 5 presents an embodiment of the invention; and

Fig. 6 presents a server according to the invention.

**DETAILED DESCRIPTION OF THE INVENTION**

Fig. 1 presents a system according to the invention. A data terminal DTE is connected to a mobile station MS, which is further connected via a base station BS to a server SERV. The data terminal DTE is typically a portable computer. The mobile station MS may consist of a mobile telephone connected to the portable computer via a serial cable or some other link. The base station BS is generally part of the pan-European digital mobile communication system (GSM, Global System for Mobile Communication).

The mobile station MS and the base station BS are comprised in a communication network CN, which preferably is the pan-European digital mobile communication system. The e-mail program used in the data terminal DTE may be the Outlook Express e-mail program. The teleworking environment working platform is

established by sending an e-mail message from the data terminal DTE via the mobile station MS and the base station BS to the server SERV.

According to an embodiment of the invention, the sender of the message becomes the president of the teleworking environment working platform and the receivers of the message become full participants of the teleworking environment working platform.

In another embodiment of the invention, the teleworking environment working platform is used by means of a WAP browser program.

Fig. 2 presents a procedural diagram according to the invention. First, a new e-mail message is generated in the e-mail program, step 21. Next, required fields of the e-mail message, such as receivers, title and content of the message, are filled in, step 22. In the title field, the heading "Establishment of a teleworking environment" is entered. The text typed in the title field will subsequently be the name of the session to be set up on the working platform. After this, the e-mail message is sent from the data terminal DTE to the server SERV over the communication network CN, step 23. If a complemented e-mail program is used, then the program comprises a special push button for an establishing e-mail message. The e-mail message is read on the server SERV, step 24. Finally, a teleworking environment working platform is set up on the basis of the e-mail message, step 25. The working platform is typically a two-dimensional matrix having pigeonholes. In the pigeonholes it is possible to store digital information that the other teleworkers can read and modify.

Fig. 3 presents an embodiment according to the invention. On a data terminal DTE, an e-mail message is generated, with Jack Robinson as sender and John Smith as receiver. In the title field SUBJECT of the message is entered the name of the session to be

set up on the working platform, in this example "message establishing a teleworking environment". The message contents field has been left empty. If necessary, the message contents may be e.g. a document, memorandum or agenda relating to the work on the working platform. The contents of the message are sent to each receiver. Using the push buttons visible on the screen of the data terminal DTE, it is possible to send an ordinary e-mail message "Send message" or an e-mail message establishing a working platform "Send e-mail message establishing a working platform". Thus, it is possible to write an e-mail message first and only then decide whether a working platform is to be established or not.

In an embodiment of the invention, an invitation to participate in a working platform session has been received. The invitation transmitted comprises a link which, when clicked by the receiver, brings the working platform for the session directly before the receiver. After this, the working platform can be used as in prior art.

In an embodiment of the invention, the common working platform of the group is located on a server used by the initiator of the session and the sender of the invitation. The receiver works with the information stored on this server, whereas the link comes to the participants of the session as an e-mail message, but the role of that message is only to open a connection to the working platform of the group.

In an embodiment of the invention, pressing a push button in an e-mail message establishing a working platform changes the message so that the only receiver of the message will be a virtual object located on a server. The virtual object has its own e-mail address. Otherwise, the message is sent normally to an e-mail server, from where the message is further transmitted to the virtual object. Having received the

message, the virtual object establishes a session on the server and sends to each participant of the session a message that contains a link to the session in question and possibly other information as well. In addition, the virtual object produces a definition of the task of the session and defines other parameters determining the activities of the session and the rights of the users, giving the initial values of said parameters.

As for reception of the message, the e-mail message produced by the virtual object is always received as such by the receiver. The message is opened in different ways depending on whether the receiver is using a complemented or an un-complemented e-mail program. If the receiver has a complemented e-mail program, then the operation of opening the message brings the working platform directly before the user. If the receiver does not have a complemented e-mail program, then the message is opened in the normal manner. By clicking a link in the message, the receiver can access the working platform. On the working platform, the receiver can work in real time on the task that the sender of the message has started.

In an embodiment of the invention, the message to be sent to the receiver contains hidden information X indicating that the message in question is intended for controlling the session on the working platform. The hidden information X does not interfere with the general system if the e-mail of the receiver of the message does not have a built-in dimension for processing the matters of the group.

In an embodiment of the invention, the received message is treated as follows. If the received message is double-clicked, then a separate browser window is opened and the e-mail message produced and sent by the virtual object and containing a link to the session on the working platform is opened in the

window. By clicking the link for the working platform, a separate browser window is opened and a working platform starting page appears in the window. If the received message is single-clicked, then in this case the e-mail message produced and sent by the virtual object and containing a link to the working platform session is opened at the lower right-hand edge of the e-mail program window. By clicking on the link, a separate browser window is opened and the starting page of the working platform session appears in the window.

In an embodiment of the invention, the received message is treated as follows. If the message contains information X and the message is double-clicked, then a separate browser window is opened and the starting page of the working platform session is opened in the window. If the message contains information X and the message is single-clicked, then the e-mail message produced and sent by the virtual object and containing a link to the working platform session is opened at the lower right-hand edge of the e-mail program window. By clicking the link to the working platform, a separate browser window is opened and the starting page of the working platform session appears in the window.

In an embodiment of the invention, the requirement applies that the sender of the establishing message should have the right to utilize both the server comprising the working platform and the e-mail server.

Fig. 4 presents an embodiment of the invention. The figure shows a two-dimensional matrix of a teleworking environment, in other words, a working platform which has been opened with a browser program. In the upper part of the working platform, frequently used functions are shown, such as "Refresh" - updating of the display, "Report" - printing out of the display

and "Exit" - exiting from the working platform. Below these is the title row of the working platform, with the text "Itemized list of all basic functions". Below this there are sub-headings such as "Product development", "Strategies", "Marketing", "Sales" and "Topical". Under the sub-headings there are free empty boxes, in which, as the work goes on, the user can write text or some other information in digital form. For example, the pigeonholes under the "Marketing" column bear the texts "Newspapers" and "Television". Further, by clicking on the Television or Newspapers box, the user will get a larger working space where he can write a more detailed description of e.g. newspaper or television advertising. When the contents of the working platform are updated, the changes can be seen in real time on the working platforms of the other teleworkers as well.

Fig. 5 presents an embodiment of the invention. At first, the initiator of the process writes an e-mail message on data terminal DTE1 and designates the receivers. Realizing that the treatment of the subject in question will start a rush of e-mail messages, the initiator presses the push button establishing a working platform. Pressing this button starts a process in which the only receiver of the message will be the virtual object on the server used by the initiator. The actual receiver data of the message is included as part of the message to be sent, step 52. After this, the message is directed to the initiator's e-mail server EMS1, step 53. From the e-mail server EMS1, the message is directed further to the virtual object on server SERV, step 54. The virtual object sets up a session on the server SERV for the group intended by the initiator, step 55. The virtual object sends each participator of the session an e-mail message containing a link to the session it has set up. The message is transmitted to each participa-

tor's own e-mail server (EMS1, EMS2, ... , EMSn) and from there further to the receiver (DTE1, DTE2, ... , DTEn), step 56. When the receiver opens the message sent by the virtual object, an interactive connection, indicated by a broken line in the figure, is set up between the receiver and the server. The connection opens immediately if the receiver has a suitable e-mail program, either a complemented or an otherwise suitable program. If the receiver does not have a suitable e-mail program, either a complemented or an otherwise suitable program, then he/she will have to click with the mouse on the link in the message in order to open the interactive connection, step 57.

Fig. 6 presents a server SERV according to the invention. The server comprises means (60) for receiving an e-mail message establishing a teleworking environment working platform from the data terminal (DTE; Fig. 1), means (61) for establishing a working platform on the server (SERV) by using the aforesaid e-mail message, a mass storage (62) for storing the working platform on the server and means (63) for modifying the working platform on the server.

The invention is not limited to the examples of its embodiments described above; instead, many variations are possible within the scope of the inventive idea defined in the claims.

**CLAIMS**

1. Method for forming a teleworking environment, said teleworking environment comprising a data terminal (DTE) provided with a client program and a server (SERV) provided with a server program and connected via a communication network (CN) to the data terminal (DTE), characterized in that the method comprises the steps of:

sending an e-mail message of specified format establishing a teleworking environment working platform from the data terminal (DTE) to the server (SERV), and

setting up a teleworking environment working platform on the server (SERV) on the basis of the aforesaid e-mail message of specified format.

2. Method according to claim 1, characterized in that a specific-format e-mail message containing a link to the working platform on the server (SERV) is sent from the server (SERV) to the data terminals.

3. Method according to claim 1 or 2, characterized in that one or more transitions to the working platform are made via the link in the e-mail message.

4. Method according to claim 1, 2 or 3, characterized in that, when a message responding to the establishing e-mail message is being opened, the working platform appears before the receiver.

5. Method according to claim 1, 2, 3 or 4, characterized in that, when a message responding to the establishing e-mail message is being opened, a direct interactive processing connection is set up between the data terminal and the server.

6. Method according to claim 1, 2, 3, 4 or 5, characterized in that the teleworking envi-

ronment working platform is established so that the sender of the e-mail message is the president of the teleworking environment working platform.

7. Method according to claim 1, 2, 3, 4, 5 or 6, characterized in that the teleworking environment working platform is established so that the receivers of the e-mail message are full participants of the teleworking environment working platform.

8. Method according to claim 1, 2, 3, 4, 5, 6 or 7, characterized in that the teleworking environment working platform is established so that the receivers of a copy of the e-mail message have the right to view the content of the teleworking environment working platform.

9. Method according to claim 1, 2, 3, 4, 5, 6, 7 or 8, characterized in that the e-mail program used is the Outlook Express e-mail program.

10. Method according to claim 1, 2, 3, 4, 5, 6, 7, 8 or 9, characterized in that a participant uses the working platform without an e-mail program.

11. Method according to claim 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10, characterized in that an Internet browser program is used as a browser program on the teleworking environment working platform.

12. Method according to claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 or 11, characterized in that a WAP browser program is used as a browser program on the teleworking environment working platform.

13. Method according to claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 or 12, characterized in that the e-mail program is provided with a special push button for a message establishing a teleworking environment working platform.

14. Method according to claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 or 13, characterized in that the teleworking environment working platform

is opened in a separate browser window if the e-mail program receives an e-mail message relating to the teleworking environment.

15. Method according to claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 or 14, characterized in that the sender of the e-mail message is assigned the right to use the teleworking environment working platform before the establishing e-mail message is sent.

16. Method according to claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 or 15, characterized in that the teleworking environment working platform is maintained in real time.

17. Method according to claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 or 16, characterized in that one or more teleworkers work simultaneously/non-simultaneously on the teleworking environment working platform.

18. Method according to claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 or 17, characterized in that the teleworking environment working platform is formed from a two-dimensional matrix.

19. System for establishing a teleworking environment, comprising:

a data terminal (DTE) provided with a client program; and

a server (SERV) provided with a server program and connected to the data terminal (DTE), characterized in that the system comprises:

means for sending an e-mail message establishing a teleworking environment working platform from the data terminal (DTE) to the server (SERV), and

means for establishing a working platform on the server (SERV) by the aid of the e-mail message sent from the data terminal (DTE).

20. System according to claim 19, characterized in that the working platform established on the server is a two-dimensional matrix.

21. System according to claim 19 or 20, characterized in that the system comprises an e-mail program in the data terminal (DTE).

22. System according to claim 19, 20 or 21, characterized in that the system comprises a web site server program on the server (SERV).

23. System according to claim 19, 20, 21 or 22, characterized in that the system comprises a web site for the teleworking environment working platform on the server (SERV).

24. System according to claim 19, 20, 21, 22 or 23, characterized in that the system comprises a mobile station (MS) communicating with the data terminal (DTE) and a base station (BS).

25. System according to claim 19, 20, 21, 22, 23 or 24, characterized in that the system comprises a base station (BS) communicating with the mobile station (MS) and the server (SERV).

26. Server for the establishment of a teleworking environment working platform, characterized in that the server comprises:

a receiver (60) for receiving an e-mail message establishing a teleworking environment working platform from the data terminal (DTE; Fig. 1),

establishing means (61) for establishing a working platform on the server (SERV; Fig. 1) by the aid of the aforesaid e-mail message,

a mass storage (62) for storing the working platform on the server, and

modifying means (63) for modifying the working platform on the server.

27. Server according to claim 26, characterized in that the server comprises a web site server program.

28. Server according to claim 26 or 27, characterized in that the server comprises a web site for a teleworking environment working platform.

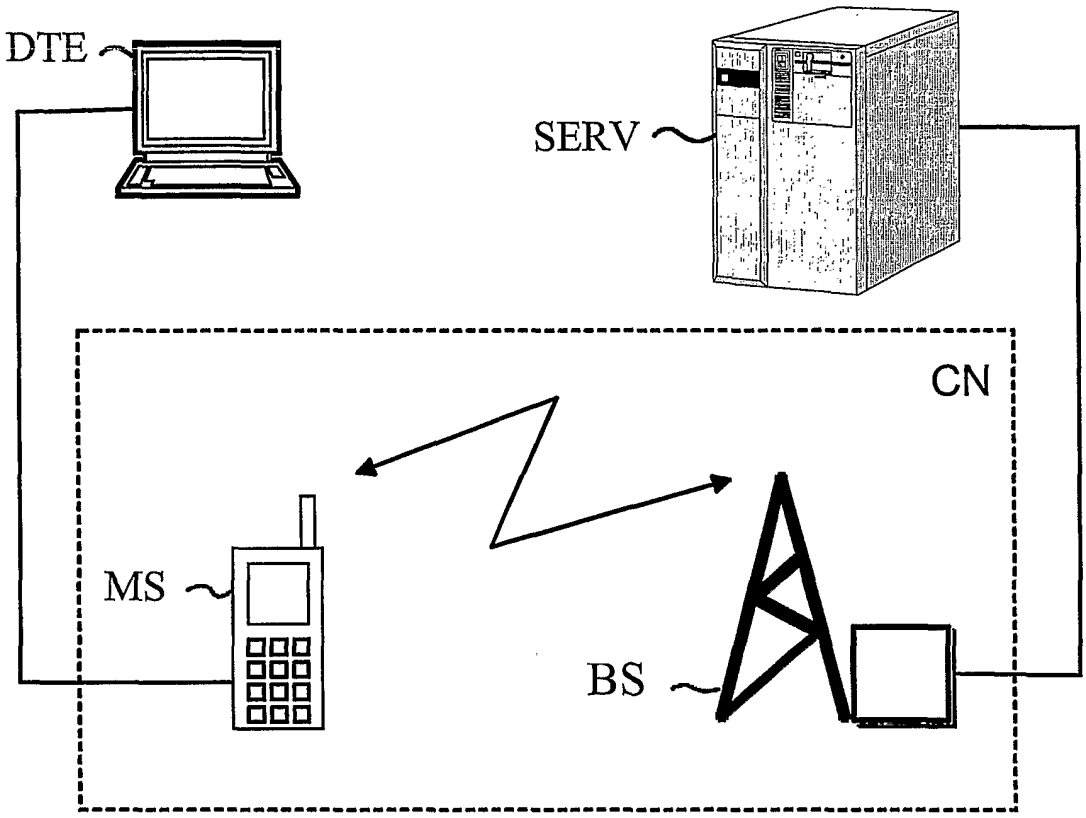



Fig. 1

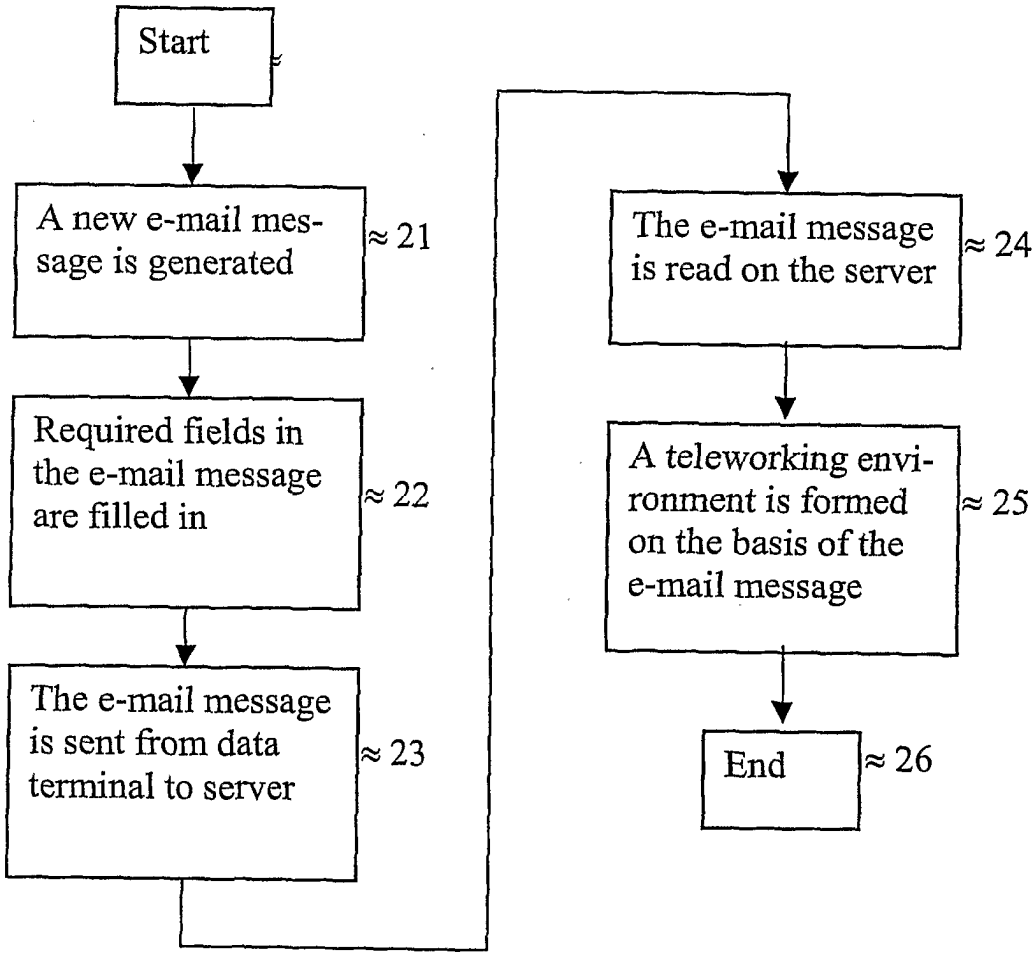

Start
A new e-mail message is generated
≈ 21
Required fields in the e-mail message are filled in
≈ 22
The e-mail message is sent from data terminal to server
≈ 23
The e-mail message is read on the server
≈ 24
A teleworking environment is formed on the basis of the e-mail message
≈ 25
End
≈ 26

Fig. 2

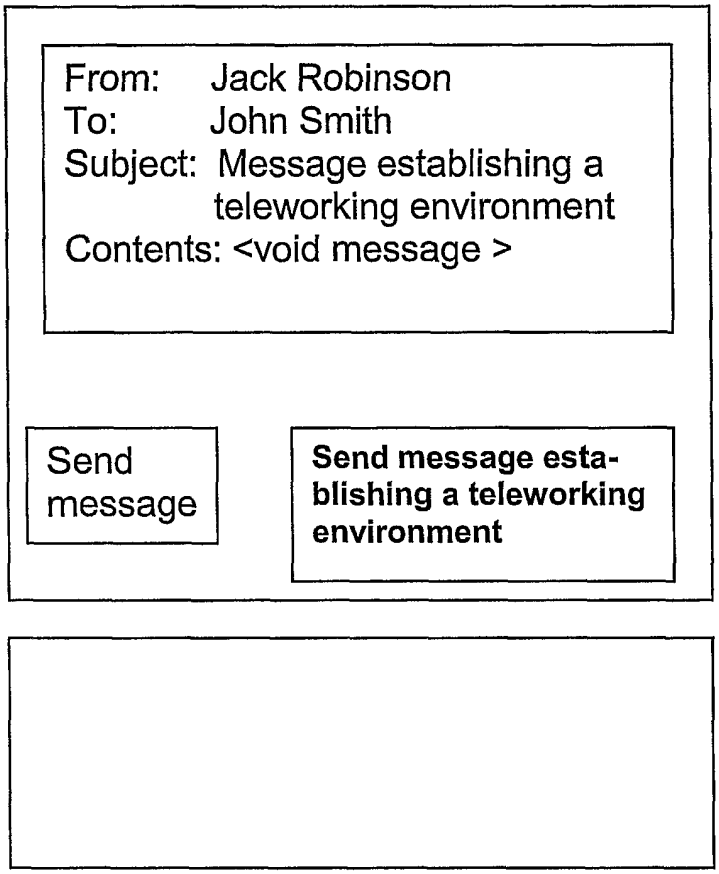

From: Jack Robinson
To: John Smith
Subject: Message establishing a teleworking environment
Contents: <void message >
Send message
Send message establishing a teleworking environment

Fig. 3

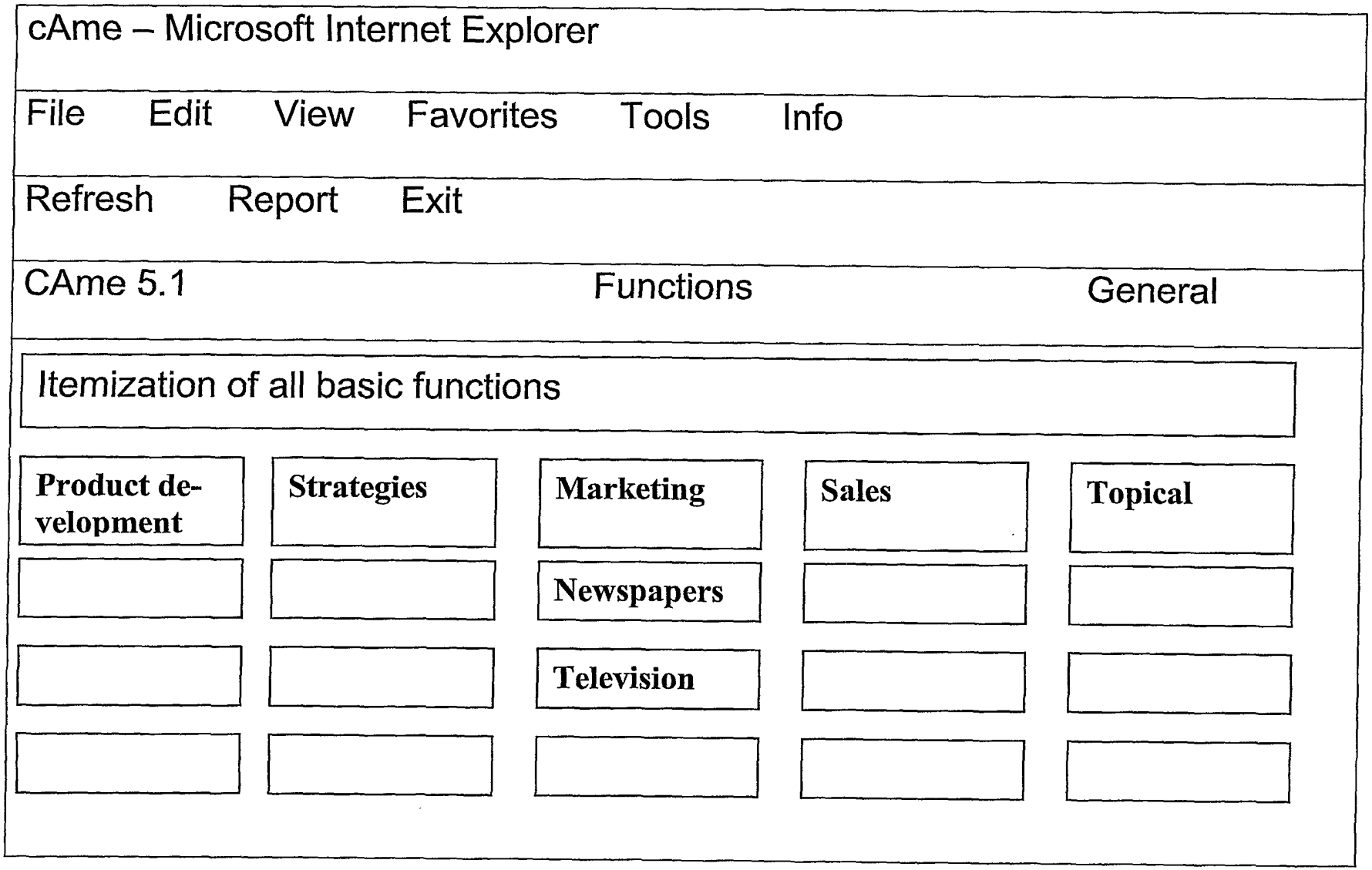

cAme – Microsoft Internet Explorer
File Edit View Favorites Tools Info
Refresh Report Exit
CAme 5.1 Functions General
Itemization of all basic functions
Product de-velopment
Strategies
Marketing
Sales
Topical
Newspapers
Television

Fig. 4

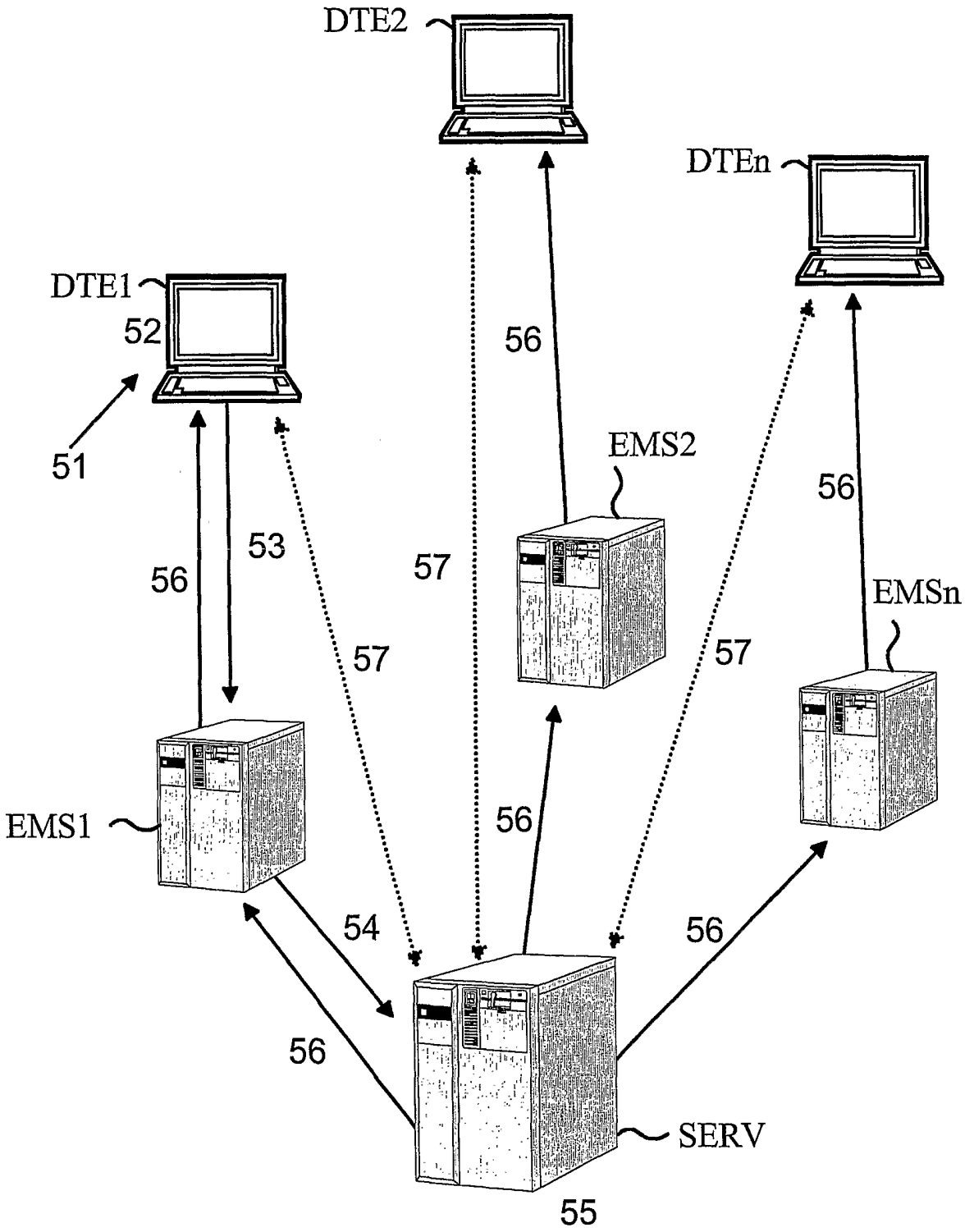
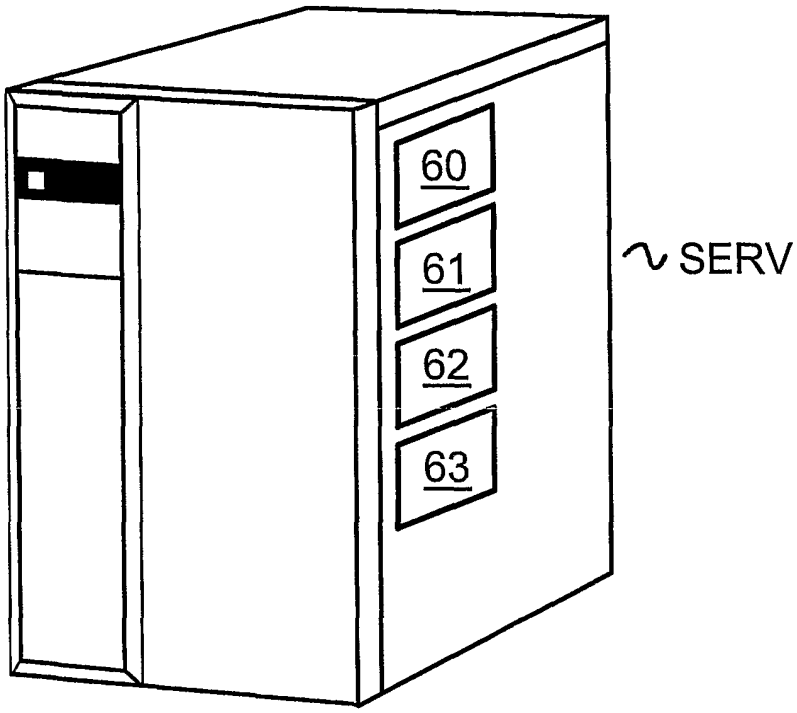

DTE2
DTEn
DTE1
52
51
56
EMS2
56
53
57
56
EMSn
57
57
EMS1
56
54
56
56
SERV
55

Fig. 5

FIG 6



# INTERNATIONAL SEARCH REPORT

International application No.
PCT/FI 02/00511

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H04L 12/58, G06F 17/30, H04Q 7/00, H04L 29/08
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)

IPC7: H04L, G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| --- | WO 0225485 A1 (PAPULA OY), 28 March 2002 (28.03.02) -- | 1-28 |
| --- | WO 0197089 A1 (ZIXIT CORP), 20 December 2001 (20.12.01) -- | 1-28 |
| --- | US 6212550 B1 (SEGUR,S.T.), 3 April 2001 (03.04.01) -- | 1-28 |
| --- | US 6182273 B1 (TARUMI, H.), 30 January 2001 (30.01.01) -- | 1-28 |

[X] Further documents are listed in the continuation of Box C. [X] 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 application or patent 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 |
|---|---|
| 13 Sept 2002 | 16 -09- 2002 |
| Name and mailing address of the ISA/<br>Swedish Patent Office<br>Box 5055, S-102 42 STOCKHOLM<br>Facsimile No. +46 8 666 02 86 | Authorized officer<br>Roger Bou Faisal/LR<br>Telephone No. +46 8 782 25 00 |

Form PCT/ISA/210 (second sheet) (July 1998)

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| --- | US 6023700 A (OWENS, S.J.H. ET AL.), 8 February 2000 (08.02.00) | 1-28 |
| --- | US 5870549 A (BOBO, C.R., II), 9 February 1999 (09.02.99) | 1-28 |
| --- | EP 0581722 A1 (YEDA RESEARCH AND DEVELOPMENT CO, LTD), 2 February 1994 (02.02.94) | 1-28 |
| --- | JOHANSON, M.: An RTP to HTTP Video Gateway. WWW10, May 1-5, 2001, Hong Kong | 1-28 |
| --- | JOHANSON, M.: Smile! - A Multimedia Communication Framework for Distributed Collaboration. Retrieved from the Internet: http://citeseer.nj.nec.com/447958.html | 1-28 |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

06/07/02

International application No.
PCT/FI 02/00511

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---|---|---|
| WO 0225485 A1 | 28/03/02 | FI 20001991 A | 09/03/02 |
| WO 0197089 A1 | 20/12/01 | AU 6697101 A | 24/12/01 |
| US 6212550 B1 | 03/04/01 | EP 0854655 A | 22/07/98 |
| US 6182273 B1 | 30/01/01 | JP 2720754 B | 04/03/98 |
| | | JP 6324850 A | 25/11/94 |
| US 6023700 A | 08/02/00 | AU 740925 B | 15/11/01 |
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| | | EP 1034651 A | 13/09/00 |
| | | JP 2001519624 T | 23/10/01 |
| | | US 6350066 B | 26/02/02 |
| | | US 2001014910 A | 16/08/01 |
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| | | CA 2232397 A | 31/10/96 |
| | | EP 0870238 A | 14/10/98 |
| | | US 5675507 A | 07/10/97 |
| | | WO 9634341 A | 31/10/96 |
| EP 0581722 A1 | 02/02/94 | IL 106384 D | 00/00/00 |
| | | JP 6216937 A | 05/08/94 |

# INTERNATIONAL SEARCH REPORT

International application No.
PCT/FI02/00511

**Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1-28
because they relate to subject matter not required to be searched by this Authority, namely:

se extra sheet

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

Continuation of Box I.1.

The characterising part of the independent claims includes only a list of actions concerning sending a message to a server and setting up a teleworking environment-working platform based on the format of the message. It is not clear what technical feature the invention includes, or what technical problem it might solve, only what the inventor wish or the invention is intended to do. Although the claims include some technical features, that is the network and its components, the actual actions of the claimed method do not concern any technical problem. Therefore, those actions can only be regarded as examples of performing purely mental acts.

The server or the data terminal and their functions are well known and so is the communication between a server and a terminal or a mobile device, according to a special format. This specific format can for example be the existing format, which is usually used, in all existing systems where a communication platform is established.

The further terms added in the dependent claims do not cure the deficiencies of the independent claims.

The invention defined by claims 1-28 does not, with reference to PCT Article 17.2 and Rule 39, require an international search.

Despite this, a search has been performed regarding what appears to be the general inventive concept.