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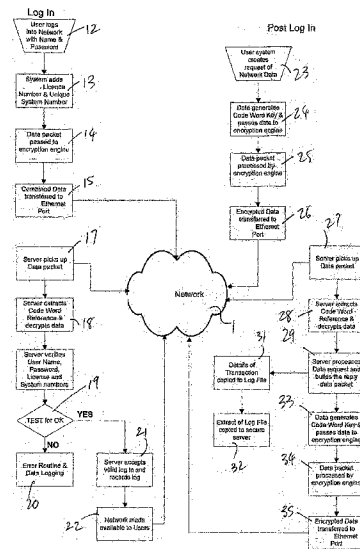
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[Continued on next page]

(54) Title: COMPUTER SYSTEMS



(57) Abstract: A networked computer system comprises a network that includes a server, and at least one client authorised for communication with that server, at which client data may be input into the system. Each such client has a memory storing a table containing a plurality of code words. The client is also provided with an encryption engine adapted to encrypt the input data using code words from the table to provide packets of data to be transmitted via the network to the server. Each packet is encrypted using a code word selected for that packet or for a train of such packets from the table. The server includes a decryption engine adapted to decrypt data packages received by the server for processing by the server. A table of code words is stored at the server, the table including all code words associated with all clients authorised for communication with the server. The decryption engine identifies from each data package received by the server whether the particular package was encoded using a code word present in the table and, if so, decrypts the package using the particular code word. Each client preferably comprises a data input station having a station code associated therewith, and each said user of the system has a user code required for logging into the system. Each client encryption engine is then arranged to combine and encrypt the station code and the user code when a user logs into the system at a particular station to provide an encrypted log-on signal. The data input station transmits the encrypted log-on signal to the server. The decryption engine of the server is linked to an access controller,

[Continued on next page]

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— *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.*

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and includes a memory storing a table of permitted combinations of station code and user code. The decryption engine decrypts received encoded log-on signals and configures the access controller to allow access from a particular data input station to, and manipulation of data in, the data processor only when the decrypted log-on signal corresponds to a permitted such combination.

# INTERNATIONAL SEARCH REPORT

International application No  
PCT/GB2007/000809

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> INV. G06F21/20		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) 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		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 657 388 A (WEISS KENNETH P [US]) 12 August 1997 (1997-08-12) the whole document	1-6,13, 14
X,P	WO 2006/075917 A (LINDMO ERIK [NO]; TAUGBOEL PETTER [NO] ENCAP AS [NO]; LINDMO ERIK [NO]) 20 July 2006 (2006-07-20) the whole document	1-6,13, 14
<input type="checkbox"/> Further documents are listed in the continuation of Box C.		
<input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents :		
*A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the International filing date but later than the priority date claimed	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family	
Date of the actual completion of the international search  <p style="text-align: center; font-weight: bold;">21 June 2007</p>	Date of mailing of the international search report  <p style="text-align: center; font-weight: bold;">07/09/2007</p>	
Name and mailing address of the ISA/ European Patent Office, P.B. 5618 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  <p style="text-align: center; font-weight: bold;">Mäenpää, Jari</p>	

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2007/000809

### Box II Observations where certain claims were found unsearchable (Continuation of item 2 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.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
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 III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

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

see additional sheet

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.:

1-6, 13-14

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-6, 13-14

A computer system and method for logging a user into the system by combining and encrypting a code of the input station and a user code. The problem to be solved is to achieve a user and device authentication at a single step.

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2. claims: 7-12, 15-16

A networked computer system and method for protecting the confidentiality of data between a client and a server by encrypting data in the client using a table containing a plurality of code words. The problem to be solved is to achieve a conveniently data confidentiality between a client and a server.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2007/000809

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5657388	A	12-08-1997	NONE
WO 2006075917	A	20-07-2006	AU 2006205272 A1 20-07-2006