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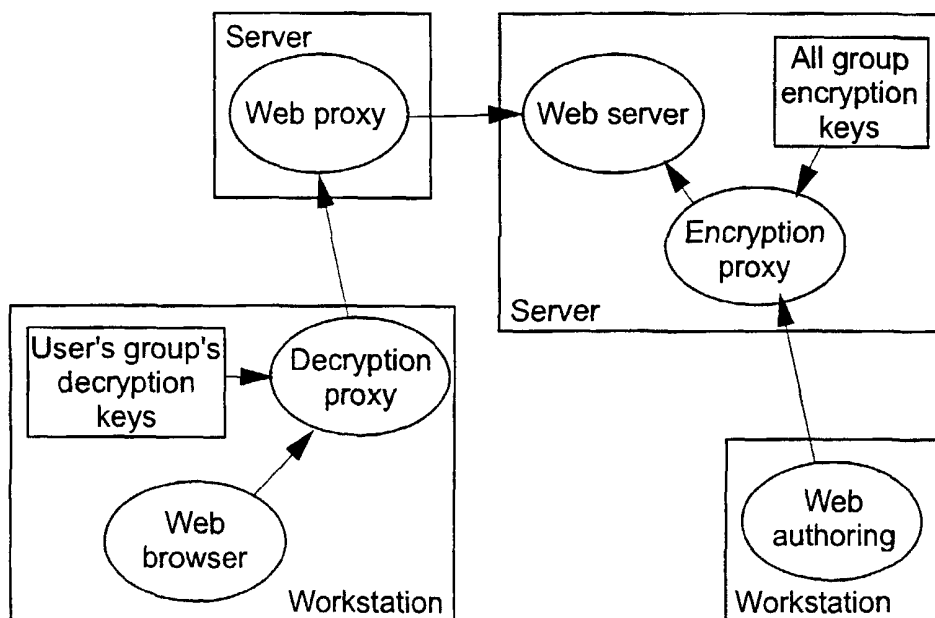
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9913165.8 8 June 1999 (08.06.1999) **GB**
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6 June 2002

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.

(54) Title: **WEB ENVIRONMENT ACCESS CONTROL**



(57) Abstract: An access control system and method in a web environment having pre-encrypted files on a web server decryption keys provided to authorised users and a trusted user proxy for controlling file access and decrypting files received, in which files are encrypted using a file key (FK), and the FK is encrypted using a Group Encryption Key (GEK), and the user proxy has a Group Decryption Key (GDK) to decrypt the FK and the file. Each encrypted file is labelled with an Access Control Expression (ACE) which indicates which users or groups of users are authorised to decrypt and observe the file; this provides a secure client server system having pre-encrypted documents on the web-server, released to a decryption proxy on the client side, which controls access to, and decrypts the documents the client is allowed to see.



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INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 00/02049

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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)

EP0-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.
X	WO 98 58306 A (OYLER SCOTT ;GUTHRIE JOHN (US); TECHWAVE INC (US); KRISHNAN GANAPA) 23 December 1998 (1998-12-23) abstract; figures 3,5,19 page 6, line 4 -page 8, line 10 page 12, line 7 -page 13, line 10 page 16, line 18 -page 17, line 7 page 34, line 24 -page 36, line 6	1,24,33
Y	---	1,2,4, 9-12,14, 15,23, 25-28, 30-32
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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 :

"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

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"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

14 September 2000

Date of mailing of the international search report

10.01.2001

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INTERNATIONAL SEARCH REPORT

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>US 5 787 175 A (CARTER STEPHEN R) 28 July 1998 (1998-07-28)</p> <p>abstract; figures 3-5 column 7, line 20 -column 10, line 2 column 12, line 9 -column 14, line 5 ---</p>	<p>1,2,4, 9-12,14, 15,23, 25-28, 30-32</p>
A	<p>US 5 677 953 A (DOLPHIN JANET L) 14 October 1997 (1997-10-14) column 2, line 33 -column 3, line 45 column 10, line 66 -column 11, line 9 -----</p>	<p>13</p>

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 00/02049

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.:
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 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:

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, 2, 4, 9-15, 23-28, 30-33

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: 1,2,4,9-15,23-28,30-33

Concealing a file encryption key

2. Claims: 5,21,22

Making a user proxy independent from underlying platforms

3. Claims: 6-8,16,20,29

Labelling files for user access control

4. Claims: 17-19

Filtering data retrieved from an external source

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 00/02049

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9858306 A	23-12-1998	US 6073124 A AU 8150598 A	06-06-2000 04-01-1999
US 5787175 A	28-07-1998	NONE	
US 5677953 A	14-10-1997	US 5457746 A AU 715638 B AU 6259596 A CA 2223565 A CN 1191643 A EP 0870380 A IL 122440 D JP 11507774 T WO 9641445 A US 5703951 A AU 694742 B AU 7687494 A EP 0719485 A IL 110891 A JP 9503322 T WO 9508231 A	10-10-1995 10-02-2000 30-12-1996 19-12-1996 26-08-1998 14-10-1998 15-06-1998 06-07-1999 19-12-1996 30-12-1997 30-07-1998 03-04-1995 03-07-1996 12-03-1999 31-03-1997 23-03-1995