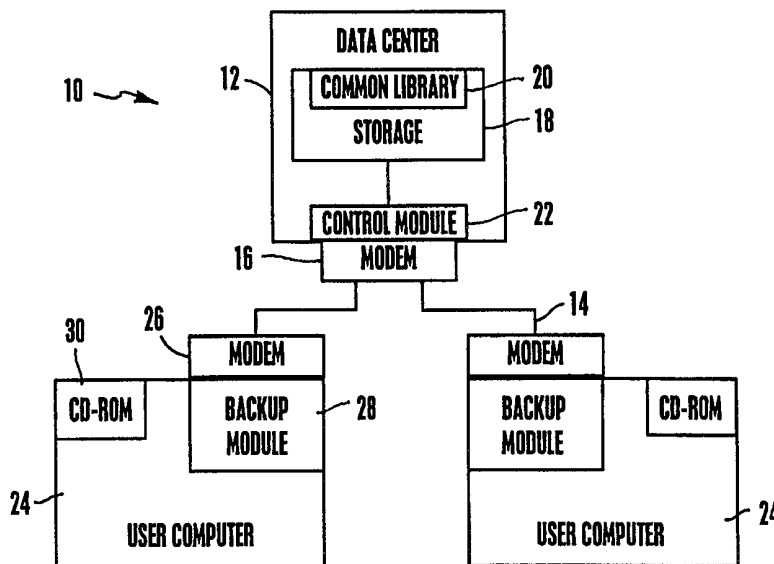




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁶ : H04L 9/00</p>	<p>A3</p>	<p>(11) International Publication Number: WO 99/46660 (43) International Publication Date: 16 September 1999 (16.09.99)</p>
<p>(21) International Application Number: PCT/US99/05248 (22) International Filing Date: 11 March 1999 (11.03.99) (30) Priority Data: 09/041,149 12 March 1998 (12.03.98) US 09/100,914 19 June 1998 (19.06.98) US 09/239,475 28 January 1999 (28.01.99) US (71) Applicant (for all designated States except US): FAIRBANKS SYSTEMS GROUP [US/US]; 3550 General Atomics Court, San Diego, CA 92121-1194 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): MICKELSEN, Stephen, Peter [CA/US]; 543 Gardendale Road, Encinitas, CA 92024 (US). BOLT, Thomas, B. [US/US]; 279 Horizon Drive, Encinitas, CA 92024-4147 (US). MCCLAIN, Fred, W. [US/US]; 6886 Circo Diegueno, Del Mar, CA 92014 (US). (74) Agent: ROGITZ, John, L.; Rogitz & Associates, Suite 3120, 750 B Street, San Diego, CA 92101 (US).</p>	<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 21 October 1999 (21.10.99)</p>	

(54) Title: SYSTEM AND METHOD FOR BACKING UP COMPUTER FILES OVER A WIDE AREA COMPUTER NETWORK



(57) Abstract

A laptop computer back up logic system (300) copies user selected files or automatically selected files for back up as the laptop computer (24) is being used. Changed files are backed up and stored in a hold area of the laptop computer (24). When the laptop computer (24) senses a network connection and the network (14) is idle, the blocks of the changed files are transmitted from the hold area to a remote facility (12) via the network (14). The backing up process can be triggered within the laptop computer (24) when the screen saver of the laptop computer (24) is invoked.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/05248

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : H04L 9/00

US CL : 713/200; 380/4; 711/162

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)

U.S. : 713/200; 380/4; 711/161,162; 707/204; 395/182.04

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 practicable, search terms used)

APS

search terms: backup, network, signature, library, idle, configure

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,559,991 A (KANFI) 24 September 1996, abstract	1-22, 25-30, 32-43
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Y		44-45
Y,P	US 5,778,395 A (WHITING et al) 07 July 1998, abstract, Figure 1, col. 5, lines 3-34, col. 6, lines 23-25.	6-14, 19-22, 25-30, 32, 35, 37-39, 43-45
Y,P	US 5,854,754 A (CABRERA et al) 29 December 1998, abstract, columns 5-10.	6-13, 19-22, 25-27, 32
Y,P	US 5,864,853 A (KIMURA et al) 26 January 1999, col. 17, lines 14-26.	6, 19
Y	US 5,438,671 A (MILES) 01 August 1995, col. 4, lines 19-29.	14



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents	*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 defining the general state of the art which is not considered to be of particular relevance	*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
B earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
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Date of the actual completion of the international search

19 JUNE 1999

Date of mailing of the international search report

27 AUG 1999

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/05248

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

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

- 1. Claims Nos.: 31
because they relate to subject matter not required to be searched by this Authority, namely:

Claim 31 is missing.

- 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:

Please See Extra 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.:
1-22, 25-30, 32-45

Remark on Protest

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

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/05248

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claim(s) 1-22, 25-45, drawn to computer data backup.

Group II, claim(s) 23-24, drawn to network configuration of a portable computer.

Group III, claim(s) 46-48, drawn to digital signature and encryption of data.

The inventions listed as Groups I, II and III do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: each group claims a completely different method or system.