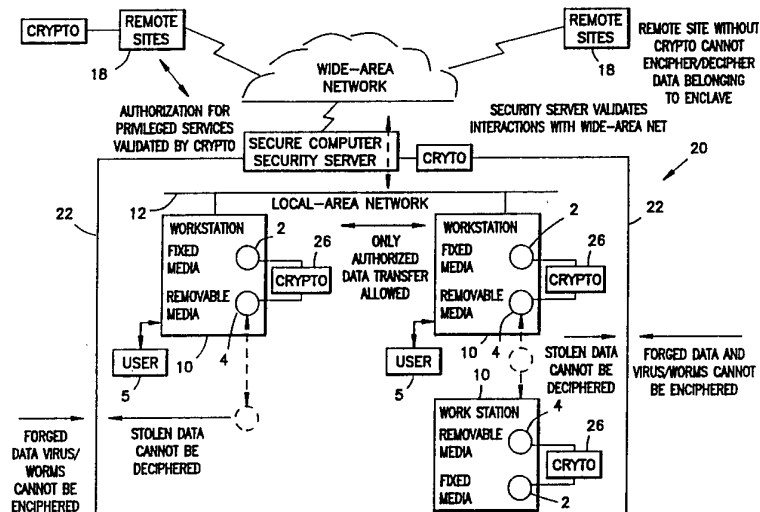




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification <sup>5</sup> : <b>G06F 12/14, 1/00</b></p>	<p><b>A3</b></p>	<p>(11) International Publication Number: <b>WO 93/21581</b> (43) International Publication Date: 28 October 1993 (28.10.93)</p>
<p>(21) International Application Number: PCT/US93/03472 (22) International Filing Date: 15 April 1993 (15.04.93) (30) Priority data: 07/870,556 17 April 1992 (17.04.92) US (71) Applicant: SECURE COMPUTING CORPORATION [US/US]; 1210 West County Road E, Suite 100, Arden Hill, MN 55112 (US). (72) Inventors: BOEBERT, William, E. ; 4915 Dupont Avenue South, Minneapolis, MN 55409 (US). MARKHAM, Thomas, R. ; 709 River Lane, Anoka, MN 55303 (US). OLMSTED, Robert, A. ; 1040 Belmont Road, Minnetonka, MN (US).</p>	<p>(74) Agent: BRUESS, Steven, C.; Merchant, Gould, Smith, Edell, Welter &amp; Schmidt, 3100 Norwest Center, 90 South Seventh Street, Minneapolis, MN 55402 (US). (81) Designated States: AU, CA, JP, UA, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). <b>Published</b> <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: 6 January 1994 (06.01.94)</p>	

(54) Title: CRYPTOGRAPHIC DATA SECURITY IN A SECURED COMPUTER SYSTEM



(57) Abstract

A data communication system providing for the secure transfer and sharing of data via a local area network and/or a wide area network. The system includes a secure processing unit which communicates with a personal keying device and a crypto media controller attached to a user's workstation. The communication between these processing elements generates a variety of data elements including keys, identifiers, and attributes. The data elements are used to identify and authenticate the user, assign user security access rights and privileges, and assign media and device attributes to a data access device according to a predefined security policy. The data elements are manipulated, combined, protected, and distributed through the network to the appropriate data access devices, which prevents the user from obtaining unauthorized data.

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# INTERNATIONAL SEARCH REPORT

International Application No **PCT/US 93/03472**

<b>I. CLASSIFICATION OF SUBJECT MATTER</b> (if several classification symbols apply, indicate all) <sup>6</sup>		
According to International Patent Classification (IPC) or to both National Classification and IPC <b>Int.C1.5                      G 06 F 12/14                      G 06 F 1/00</b>		
<b>II. FIELDS SEARCHED</b>		
Minimum Documentation Searched <sup>7</sup>		
Classification System	Classification Symbols	
Int.C1.5	G 06 F	G 07 F
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched <sup>8</sup>		
<b>III. DOCUMENTS CONSIDERED TO BE RELEVANT<sup>9</sup></b>		
Category <sup>10</sup>	Citation of Document, <sup>11</sup> with indication, where appropriate, of the relevant passages <sup>12</sup>	Relevant to Claim No. <sup>13</sup>
Y	EP,A,0421409 (IBM) 10 April 1991 see abstract; figures 5,8,11,13-15 see page 2, line 34 - page 3, line 6 see page 6, line 18 - page 7, line 43 see page 8, line 41 - page 11, line 38 -----	1,2,3,7
Y	US,A,5052040 (PRESTON ET AL) 24 September 1991 see the whole document -----	1,2,3,7
A	EP,A,0471538 (GEC MARCONI (HOLDINGS)) 19 February 1992 see abstract; figures 1,3 see column 2, line 1 - line 53 -----	1,2,3,7
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><sup>10</sup> Special categories of cited documents :</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> </div> <div style="width: 45%;"> <p>"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</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step</p> <p>"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.</p> <p>"&amp;" document member of the same patent family</p> </div> </div>		
<b>IV. CERTIFICATION</b>		
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report	
30-08-1993	<b>03.12.93</b>	
International Searching Authority	Signature of Authorized Officer	
EUROPEAN PATENT OFFICE	<div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">Trees van Deursen</div>	

International application No.

## A PRIORI

1. Claims 1-10: Cryptographic data protection within a secure computer.
2. Claim 11: Communication protocol over an untrusted medium.

The special technical feature of the first invention is: Secure access, using cryptography, to data held on fixed or removable media within a secure computer.

According to rule 13 PCT, non-unity 'a priori' has been detected for invention number 2, which deals mainly with: A protocol to establish secure communication over an untrusted medium.

As a result, there is no technical link between the 2 invention.

**ANNEX TO THE INTERNATIONAL SEARCH REPORT  
ON INTERNATIONAL PATENT APPLICATION NO.**

US 9303472  
SA 73575

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on 23/11/93  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP-A- 0421409	10-04-91	US-A- 5048085	10-09-91
		CA-A- 2026739	07-04-91
		JP-A- 3237551	23-10-91
		US-A- 5148481	15-09-92
US-A- 5052040	24-09-91	None	
EP-A- 0471538	19-02-92	GB-A- 2247548	04-03-92