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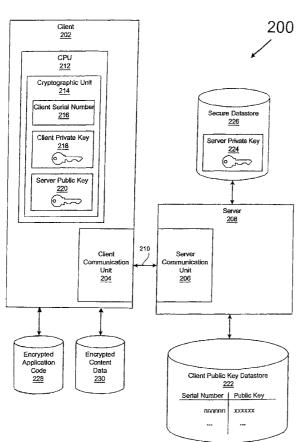
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[Continued on next page]

(54) Title: CONTROLLED DISTRIBUTION OF APPLICATION CODE AND CONTENT DATA WITHIN A COMPUTER NETWORK



(57) Abstract: A secure communication methodology is The client device is configured to download application code and/or content data from a server operated by a service provider. Embedded within the client is a client private key, a client serial number, and a copy of a server public key. The client forms a request, which includes the client serial number, encrypts the request with the server public key, and sends the download request to the server. The server decrypts the request with the server's private key and authenticates the client. The received client serial number is used to search for a client public key that corresponds to the embedded client private key. The server encrypts its response, which includes the requested information, with the client public key of the requesting client, and only the private key in the requesting client can be used to decrypt the information downloaded from the server.

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PC17GB 02/01738 A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H04L9/30 H04L H04L9/08 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) IPC 7 H04L G07F 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, PAJ, WPI Data, INSPEC C. DOCUMENTS CONSIDERED TO BE RELEVANT Category 9 Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. χ US 5 787 172 A (ARNOLD TERRY SUTTON) 1 - 2028 July 1998 (1998-07-28) abstract X US 5 502 765 A (FUJIOKA ATSUSHI ET AL) 1 - 2026 March 1996 (1996-03-26) abstract X Further documents are listed in the continuation of box C. Patent family members are listed in 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 "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to 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) 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 document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 4 December 2002 08/01/2003 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016 Carnerero Álvaro, F

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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.							
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.					
A	MENEZES A J OORSCHOT VAN P C VANSTONE S A: "Handbook of applied cryptography" HANDBOOK OF APPLIED CRYPTOGRAPHY, CRC PRESS SERIES ON DISCRETE MATHEMATICES AND ITS APPLICATIONS, BOCA RATON, FL, CRC PRESS, US, 1997, pages 2-6, 25-30, 489, 509, 510, 578-581, XP002223667 ISBN: 0-8493-8523-7 page 2 -page 6 page 25 -page 30 page 489, paragraph 2 page 509 -page 510 page 578, line 15 - line 20 page 579, line 1 - line 3 page 579, line 9 - line 20 page 580, line 31 - line 35 page 581, paragraph 1 - paragraph 2	1-20					

INTERNATIONAL SEARCH REPORT

Information on patent family members

Intel nal Application No
PCT/GB 02/01738

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5787172	Α	28-07-1998	CA	2184679 A1	04-03-1998
			ΑT	189570 T	15-02-2000
			DE	69514908 D1	09-03-2000
			DE	69514908 T2	20-07-2000
			EP	0746927 A1	11-12-1996
			EP	0907270 A2	07-04-1999
			WO	9523468 A1	31-08-1995
			US	6148400 A	14-11-2000
			US	6456716 B1	24-09-2002
US 5502765	Α	26-03-1996	JP	3082882 B2	28-08-2000
			JP	6103425 A	15-04-1994
			JP	3082883 B2	28-08-2000
			JP	6103426 A	15-04-1994
			JP	3080202 B2	21-08-2000
			JP	6162289 A	10-06-1994
			JP	3085334 B2	04-09-2000
			JP	6162287 A	10-06-1994
			JP	6161354 A	07-06-1994
			DE	69322463 D1	21-01-1999
			DE	69322463 T2	10-06-1999
			ΕP	0588339 A2	23-03-1994
			EP	0856821 A2	05-08-1998
			EP	0856822 A2	05-08-1998
			US	5396558 A	07-03-1995
			US	5446796 A	29-08-1995