



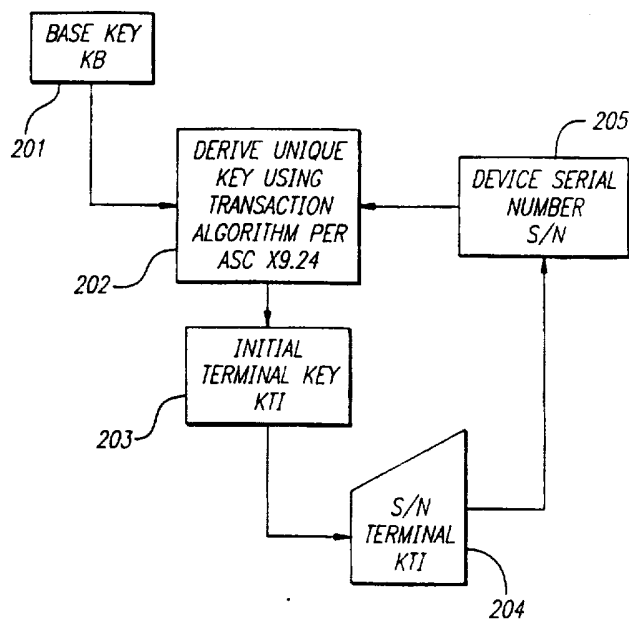
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<p>(21) International Application Number: PCT/US97/08265 (22) International Filing Date: 16 May 1997 (16.05.97) (30) Priority Data: 08/650,888 17 May 1996 (17.05.96) US (71) Applicant (for all designated States except US): VISA INTERNATIONAL SERVICE ASSOCIATION [US/US]; 900 Metro Center Boulevard, Foster City, CA 94404 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): ABRAHAM, Dennis, G. [US/US]; 5795 Gettysburg Drive, Concord, NC 28027 (US). HITE, Richard, K. [US/US]; 938 Buttercup Place, Manteca, CA 95336 (US). (74) Agent: MASCHOFF, Kurt, M.; Visa International Service Association, 900 Metro Center Boulevard, Foster City, CA 94404 (US).</p>		<p>(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> <i>With international search report.</i></p> <p>(88) Date of publication of the international search report: 26 February 1998 (26.02.98)</p>

(54) Title: METHOD AND APPARATUS FOR INITIALIZATION OF CRYPTOGRAPHIC TERMINAL

## (57) Abstract

The present invention provides a method and apparatus for initializing cryptographic terminals in a cryptographic system. The invention provides a base key (201) that is common to all controllers produced by a manufacturer of cryptographic terminals in each controller prior to shipment of the controllers. The base key (201) is used only for the purposes of initialization of cryptographic terminals, and is not used for normal operations. Each cryptographic terminal that is to be used with any of the controllers containing the common base key (203) is derived from the particular terminal's serial number (205) and the common base key (201). The initial key (203) is only for initialization purposes and not for system operation. The terminal and controller establish communications in a normal manner using whatever communication protocol is appropriate for them. Upon installation, the controller and terminal enter into communications whereby the controller is able to securely determine the initial key (203) contained in the terminal since the controller contains the base key (201).



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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US97/08265

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
IPC(6) :H04L 9/32; G07F 7/08 US CL :380/24, 21, 25; 902/2 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) U.S. : 380/24, 21, 25; 902/2		
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)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E, A	US 5,661,806 A (NEVOUX et al) 26 August 1997, col. 2, lines 25-33.	1-23
A	US 5,323,465 A (AVARNE) 21 June 1994, col. 3, lines 23-42.	1-23
A	US 5,249,230 A (MIHM, JR.) 28 September 1993, col. 6, line 48- col. 7, line 66.	1-23
A	US 5,150,412 A (MARU) 22 September 1992, col. 3, lines 1-3.	1-23
A	US 4,984,270 A (LABOUNTY) 08 January 1991, col. 3, lines 32- 52.	1-23
A	US 4,912,762 A (LEE et al) 27 March 1990, col. 8, lines 5-19.	1-23
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Date of the actual completion of the international search 20 OCTOBER 1997		Date of mailing of the international search report 01 DEC 1997
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230		Authorized officer <i>Deane Gordon</i> GILBERTO BARRÓN JR. Telephone No. (703) 306-4177

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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.
A	US 4,630,201 A (WHITE) 16 December 1986, col. 6, lines 4-44.	1-23
A	US 4,578,530 A (ZEIDLER) 25 March 1986, col. 11, line 59-col. 12, line 68.	1-23
A	US 4,317,957 A (SENDROW) 02 March 1982, col. 6, lines 17-39.	1-23