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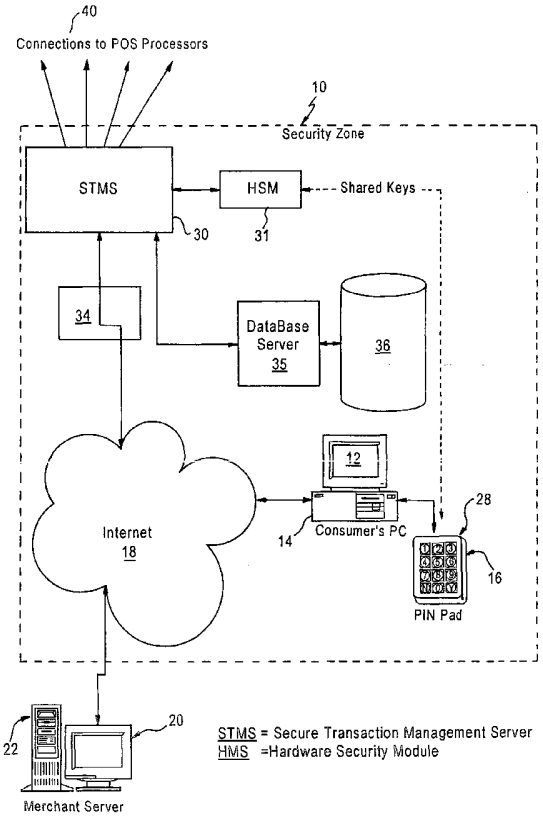
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(54) Title: APPARATUS FOR AND METHOD OF SECURE ATM DEBIT CARD AND CREDIT CARD PAYMENT TRANSACTIONS VIA THE INTERNET



(57) Abstract: The present invention is directed to a combination software and/or hardware system that provides consumers with a secure method for making and accepting credit card and ATM card payments over the Internet. A Data Encryption Standard (DES) encrypted Personal Identification Number (PIN) Block is created at the consumer's Internet access device meeting of American National Standards Institute (ANSI) X9.8 and Automatic Teller Machine (ATM) network requirements. The PIN block and card information are in a public key/private key encrypted financial payment transaction data block using additional layer(s) of encryption also performed at the consumer's Internet access device. The FP block is transmitted to an STMS for the generation of a financial transaction request that is sent to the payment processor according to the implementation method chosen by the system software at the payment processor. The FP block is decrypted at the STMS using a decryption algorithm matching that used by the software at the consumer's Internet access device. The encrypted PIN block within this data will be translated by the HSM dependent upon the processor that the transaction is to be routed to. The data is then re-formatted for transmission to the appropriate transaction processing network, and subsequently forwarded to the appropriate payment service processor accordingly. The present invention is independent of the encryption algorithm(s) used, and may be implemented with any number of encryption algorithms.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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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 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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 815 577 A (CLARK DERECK D) 29 September 1998 (1998-09-29)	28-30
A	abstract; figures 1,2,5,11 column 2, line 27 - line 64 column 3, line 54 - line 64 column 5, line 16 - line 25 column 7, paragraph 2 - paragraph 3 column 11, line 56 - line 61 column 9, paragraph 2 --- -/--	1-27

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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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	Aguilar, J.M.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	VISA & MASTERCARD: "SETSecure Electronic Transaction Specification. Book 1: Business Description. Version 1.0" INTERNET, 'Online! - 31 May 1997 (1997-05-31) pages 1-78, XP002250114 Retrieved from the Internet: <URL:http://www.setco.org/download/set_bk1 .pdf> 'retrieved on 2003-08-04!	17-30
A	page 10 page 55 -page 67	1-16
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