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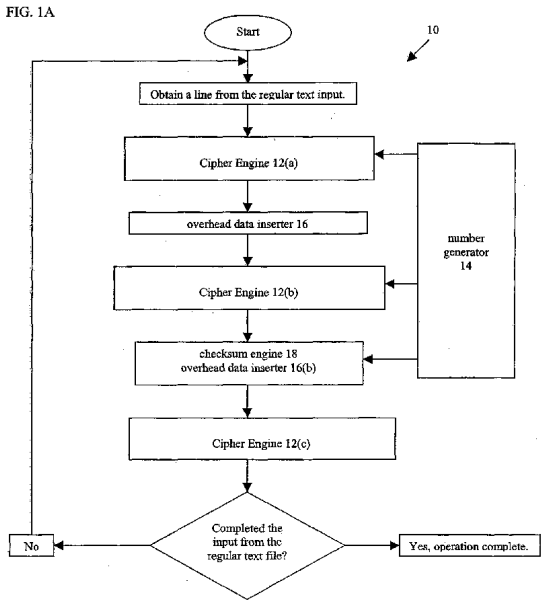
(54) Title: ENCRYPTION METHODS AND APPARATUS

FIG. 1A



(57) Abstract: An encryption and decryption system is provided. The system includes multiple sub-key tables, each sub-key table associated with an identifying number and multiple cipher engines arranged serially, each cipher engine capable of executing a different encryption operation on an input data stream. The system also includes a number generator for generating numbers used to select sub-key tables. Data that assist deciphering engines with deciphering text encrypted with the cipher engines is inserted into the output data stream of at least one of the multiple cipher engines. The ciphering portion of the system alsoincludes a checksum engine positioned prior to the last cipher engine and adapted to produce a checksum value for insertion into the input data stream of the last cipher engine.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 05/45399

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04L 9/00 (2007.01)
USPC - 713/171
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)
USPC: 713/171

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 713/150, 171, 189, 190; 726/2, 5, 21; 380/44, 46, 277

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PubWEST(USPT,PGPB,EPAB,JPAB); Google Scholar
Search Terms: encryption, random, pseudo, number, sub-key, table, checksum, cipher, decipher, decryption, number generator, serial

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/0031050 A1 (Domstedt et al.) 18 October 2001 (18.10.2001), abstract, para [0014], [0030], [0032], [0049], [0053], [0081]-[0083], [0093], [0101], [0105], [0113], [0115], [0118], [0130]	1-26
A	US 2001/0021254 A1 (Furuya et al.) 13 September 2001 (13.09.2001)	1-26
A	US 6,570,989 B1 (Ohmori et al.) 27 May 2003 (27.05.2003)	1-26

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* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
26 July 2007 (26.07.2007)	14 MAR 2008
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