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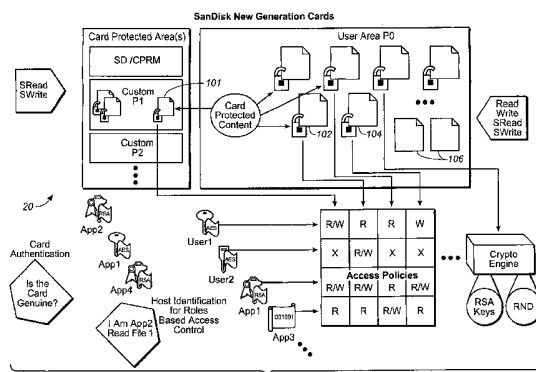
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[Continued on next page]

(54) Title: MEMORY SYSTEM WITH VERSATILE CONTENT CONTROL



(57) Abstract: The owner of proprietor interest is in a better position to control access to the encrypted content in the medium if the encryption-decryption key is stored in the medium itself and substantially inaccessible to external devices. Only those host devices with the proper credentials are able to access the key. An access policy may be stored which grants different permissions (e.g. to different authorized entities) for accessing data stored in the medium. A system incorporating a combination of the two above features is particularly advantageous. On the one hand, the content owner or proprietor has the ability to control access to the content by using keys that are substantially inaccessible to external devices and at the same time has the ability to grant different permissions for accessing content in the medium. Thus, even where external devices gain access, their access may still be subject to the different permissions set by the content owner or proprietor recorded in the storage medium. When implemented in a flash memory, the above features result in a particularly useful medium for content protection. Many storage devices are not aware of file systems while many computer host devices read and write data in the form of files. The host device provides a key reference or ID, while the memory system generates a key value in response which is associated with the key ID, which is used as the handle through which the memory retains complete and exclusive control over the generation and use of the key value for cryptographic processes, while the host retains control of files.

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Published:

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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)
G06F

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, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 391 082 A (* RITECH INTERNATIONAL LIMITED) 28 January 2004 (2004-01-28) page 1, line 3 - page 7, line 8	1-15, 20-32, 34-36
Y	-----	33
A	US 2004/139021 A1 (REED SONIA ET AL) 15 July 2004 (2004-07-15) paragraph [0007] - paragraph [0010] paragraph [0015] - paragraph [0085]	1-15, 20-32, 34-36
A	US 4 780 905 A (CRUTS ET AL) 25 October 1988 (1988-10-25) the whole document	1-15, 20-32, 34-36
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Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international 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)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "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
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to 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 in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International application No

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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.
X	US 6 779 113 B1 (GUTHERY SCOTT B) 17 August 2004 (2004-08-17) column 3, line 20 - column 4, line 20 column 4, line 50 - column 16, line 60	16,17, 37,38
Y	-----	33
A	EP 1 467 312 A (SONY CORPORATION) 13 October 2004 (2004-10-13) the whole document	16,17, 33,37,38
X	-----	
X	EP 0 330 404 A (FUJITSU LIMITED) 30 August 1989 (1989-08-30) column 1, line 1 - line 48 column 3, line 5 - column 14, line 35	18,19, 39-41
A	-----	
A	WO 02/01368 A (INTEL CORPORATION; HASBUN, ROBERT; VOGT, JAMES; BRIZEK, JOHN) 3 January 2002 (2002-01-03) the whole document	18,19, 39-41

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2005/046478

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-15,20-32,34-36

Controlling access to keys

2. claims: 16,17,33,37-38

Controlling access to a memory by two corresponding entities

3. claims: 18,19,39-41

Communicating with host device

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
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