

US008033458B2

(12) United States Patent Hulst et al.

(10) Patent No.: US 8,033,458 B2 (45) Date of Patent: Oct. 11, 2011

(54) DATA STORAGE AND ACCESS SYSTEMS

(75) Inventors: **Hermen-ard Hulst**, Amsterdam (NL); **Patrick Racz**, Saint Heller (JE)

(73) Assignee: Smartflash Technologies Limited,

Tortola (VG)

(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 12/943,847

(22) Filed: Nov. 10, 2010

(65) **Prior Publication Data**

US 2011/0073643 A1 Mar. 31, 2011

Related U.S. Application Data

(63) Continuation of application No. 12/014,558, filed on Jan. 15, 2008, now Pat. No. 7,942,317, which is a continuation of application No. 11/336,758, filed on Jan. 19, 2006, now Pat. No. 7,334,720, which is a continuation of application No. 10/111,716, filed as application No. PCT/GB00/04110 on Oct. 25, 2000, now abandoned.

(51) **Int. Cl. G06K 5/00** (2006.01)

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

| 4,341,951 | Α | | 7/1982 | Benton |
|-----------|---|---|--------|-----------------------|
| 4,697,073 | Α | * | 9/1987 | Hara 235/487 |
| 5,148,432 | Α | * | 9/1992 | Gordon et al 714/6.32 |

| 5,226,145 A | 7/1993 | Moronaga et al. | | | | |
|---------------|---------|----------------------|--|--|--|--|
| 5,367,150 A | 11/1994 | Kitta et al. | | | | |
| 5,406,619 A | 4/1995 | Akhteruzzaman et al. | | | | |
| 5,457,746 A | 10/1995 | Dolphin | | | | |
| 5,532,466 A | 7/1996 | Konno et al. | | | | |
| 5,588,146 A | 12/1996 | Leroux | | | | |
| 5,677,953 A | 10/1997 | Dolphin | | | | |
| 5,703,951 A | 12/1997 | Dolphin | | | | |
| 5,740,369 A | 4/1998 | Yokozawa et al. | | | | |
| 5.744.787 A | 4/1998 | Teicher | | | | |
| 5,754,654 A | 5/1998 | Hiroya et al. | | | | |
| 5,794,202 A | 8/1998 | | | | | |
| 5.809.241 A | 9/1998 | Hanel et al. | | | | |
| 5,845,201 A * | 12/1998 | Funke et al 455/403 | | | | |
| (Continued) | | | | | | |

FOREIGN PATENT DOCUMENTS

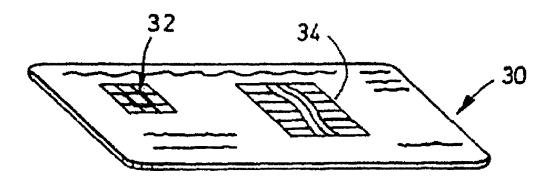
EP 0 195 098 10/1990 (Continued)

Primary Examiner — Thien M Le (74) Attorney, Agent, or Firm — Kilpatrick Townsend & Stockton LLP

(57) ABSTRACT

Data storage and access systems enable downloading and paying for data such as audio and video data, text, software, games and other types of data. A portable data carrier has an interface for sending and receiving data, data memory for storing received content data, and payment validation memory for providing payment validation data to an external device. The carrier may also store a record of access made to the stored content, and content use rules for controlling access to the stored content. Embodiments store further access control data and supplementary data such as hot links to web sites and/or advertising data. A complementary data access terminal, data supply computer system, and data access device are also described. The combination of payment data and stored content data and use rule data helps reduce the risk of unauthorized access to data such as compressed music and video data, especially over the Internet.

12 Claims, 17 Drawing Sheets



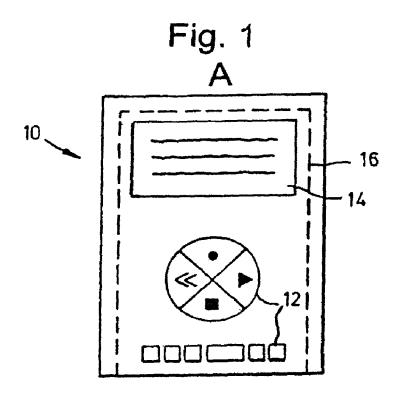


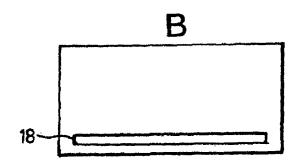
US 8,033,458 B2

Page 2

| II C DATED | C DOCLINAED ITTO | 6,000,507, D2 1/0006, M 1 |
|-----------------------|------------------|--|
| U.S. PATENT | DOCUMENTS | 6,993,507 B2 1/2006 Meyer et al. |
| 5,845,281 A 12/1998 | Benson et al. | 6,999,936 B2 2/2006 Sehr |
| 5,847,372 A 12/1998 | | 7,000,836 B2 * 2/2006 Saeki |
| 5,874,760 A * 2/1999 | | 7,044,362 B2 5/2006 Yu |
| 5,889,860 A 3/1999 | | 7,083,081 B2 8/2006 McGee et al. |
| 5,901,330 A 5/1999 | | 7,334,720 B2 * 2/2008 Hulst et al |
| 5,918,213 A 6/1999 | | 7,677,446 B2 3/2010 Wise |
| 5,923,884 A 7/1999 | | 2003/0163594 A1* 8/2003 Aasheim et al |
| | Schneck et al. | 2003/0168515 A1* 9/2003 Gray |
| | Hoshino et al. | 2006/0179211 A1* 8/2006 Aasheim et al |
| 6,012,634 A 1/2000 | | 2006/0249570 A1 11/2006 Seifert et al. |
| | Fujimoto | 2008/0041938 A1 2/2008 Wise |
| | Paulsen et al. | FOREIGN PATENT DOCUMENTS |
| | Muller et al. | |
| 6,142,369 A 11/2000 | | EP 0 713 198 A2 5/1996 |
| | Nuttall | EP 0 823 694 A1 2/1998 |
| | Ananda | EP 0 542 298 4/1998 |
| | Stadelmann | EP 0 843 449 A2 5/1998 |
| | Walter et al. | EP 0 914 001 A1 5/1999 |
| 6,442,570 B1 8/2002 | | JP 10-269291 A 10/1998 |
| | Dahman et al. | JP 11-53184 A 2/1999 |
| | Crane et al. | JP 11-212785 A 8/1999 |
| 6,553,413 B1 4/2003 | | JP 11-213010 A 8/1999 |
| 6,554,192 B2 4/2003 | | JP 11-272762 A 10/1999 |
| 6,574,643 B2 6/2003 | | WO WO 98/19237 A1 5/1998 |
| 6,658,568 B1 12/2003 | | WO WO 98/33343 7/1998 |
| 6,721,749 B1 * 4/2004 | | WO WO 98/37526 8/1998 |
| , , | Weldon et al | * cited by examiner |
| | | |







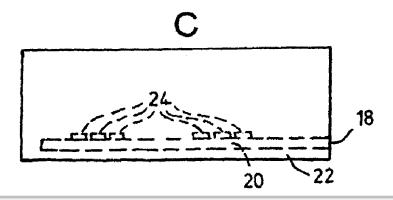




Fig. 2

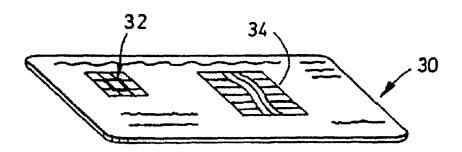
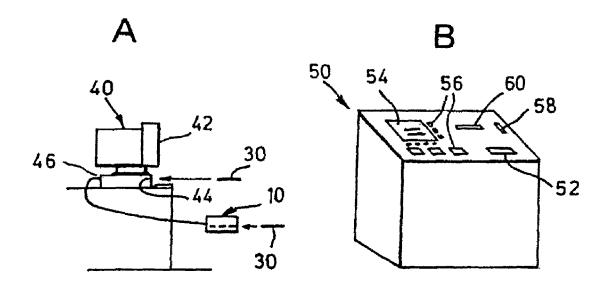
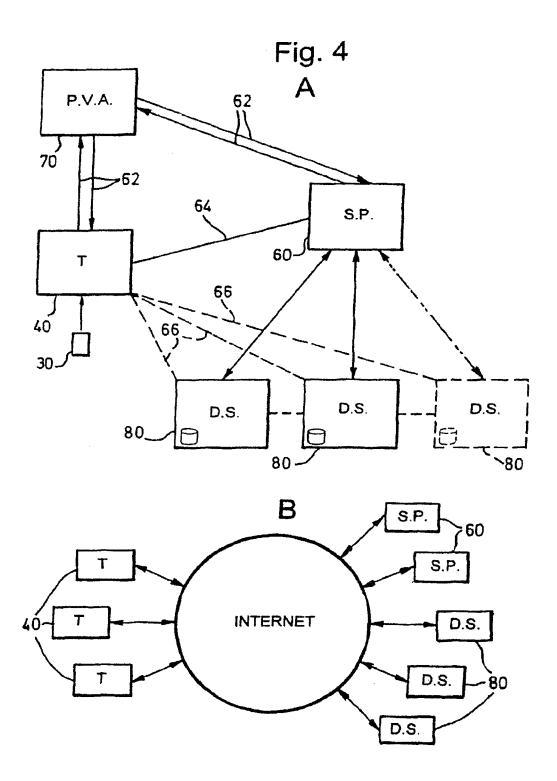


Fig. 3









DOCKET A L A R M

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.

