



US008581706B2

(12) **United States Patent**
Finkenzeller et al.

(10) **Patent No.:** **US 8,581,706 B2**
(45) **Date of Patent:** **Nov. 12, 2013**

(54) **DATA STORAGE MEDIUM AND METHOD FOR CONTACTLESS COMMUNICATION BETWEEN THE DATA STORAGE MEDIUM AND A READER**

(75) Inventors: **Klaus Finkenzeller**, Unterföhring (DE);
Karl Eglolf Hartel, München (DE);
Denny Brandl, Eching (DE)

(73) Assignee: **Giesecke & Devrient GmbH**, Munich (DE)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1210 days.

(21) Appl. No.: **12/304,653**

(22) PCT Filed: **Jun. 12, 2007**

(86) PCT No.: **PCT/EP2007/005185**

§ 371 (c)(1),
(2), (4) Date: **Mar. 4, 2009**

(87) PCT Pub. No.: **WO2007/144149**

PCT Pub. Date: **Dec. 21, 2007**

(65) **Prior Publication Data**

US 2009/0199206 A1 Aug. 6, 2009

(30) **Foreign Application Priority Data**

Jun. 12, 2006 (DE) 10 2006 027 200

(51) **Int. Cl.**
H04Q 5/22 (2006.01)

(52) **U.S. Cl.**
USPC **340/10.41**; 340/10.1; 340/10.2; 340/10.4;
340/10.42

(58) **Field of Classification Search**
USPC 340/10.1, 10.2, 10.4, 10.41, 10.42
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,421,196 B1 *	7/2002	Takayama et al.	360/71
2004/0199784 A1 *	10/2004	Irisawa et al.	713/200
2005/0007236 A1 *	1/2005	Lane et al.	340/5.86
2005/0066039 A1 *	3/2005	Ayatsuka et al.	709/228
2006/0065731 A1 *	3/2006	Powell et al.	235/451
2006/0206343 A1 *	9/2006	Nakanishi et al.	705/1
2007/0274242 A1 *	11/2007	Lamacraft et al.	370/310
2008/0109899 A1 *	5/2008	Rijnsouw Van et al.	726/21
2009/0243810 A1 *	10/2009	Pendlebury et al.	340/10.4

FOREIGN PATENT DOCUMENTS

EP	1 450 299 A1	8/2004
WO	WO 2006/010943 A1	2/2006

* cited by examiner

Primary Examiner — Jennifer Mehmood

Assistant Examiner — Andrew Bee

(74) *Attorney, Agent, or Firm* — Bacon & Thomas, PLLC

(57) **ABSTRACT**

A method and a data carrier for contactless, in particular parallel, communication of a reading device with at least two communication-ready applications located on a portable data carrier. A first communication-readiness signal is generated for a first application and sent to the reading device, the signal having a first identification number that is assigned to the first application and indicates to the reading device the communication readiness of said first application, and a second communication-readiness signal is generated and sent for a second application, the second signal having a second identification number different from the first identification number, which is assigned to said second application and indicates to the reading device the communication readiness of said second application. The identification numbers simulate for the reading device the communication readiness of a data carrier in each case. The reading device thus has the impression of communicating with applications of two separate data carriers.

22 Claims, 4 Drawing Sheets

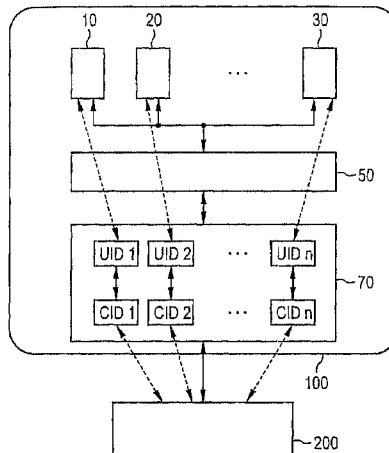
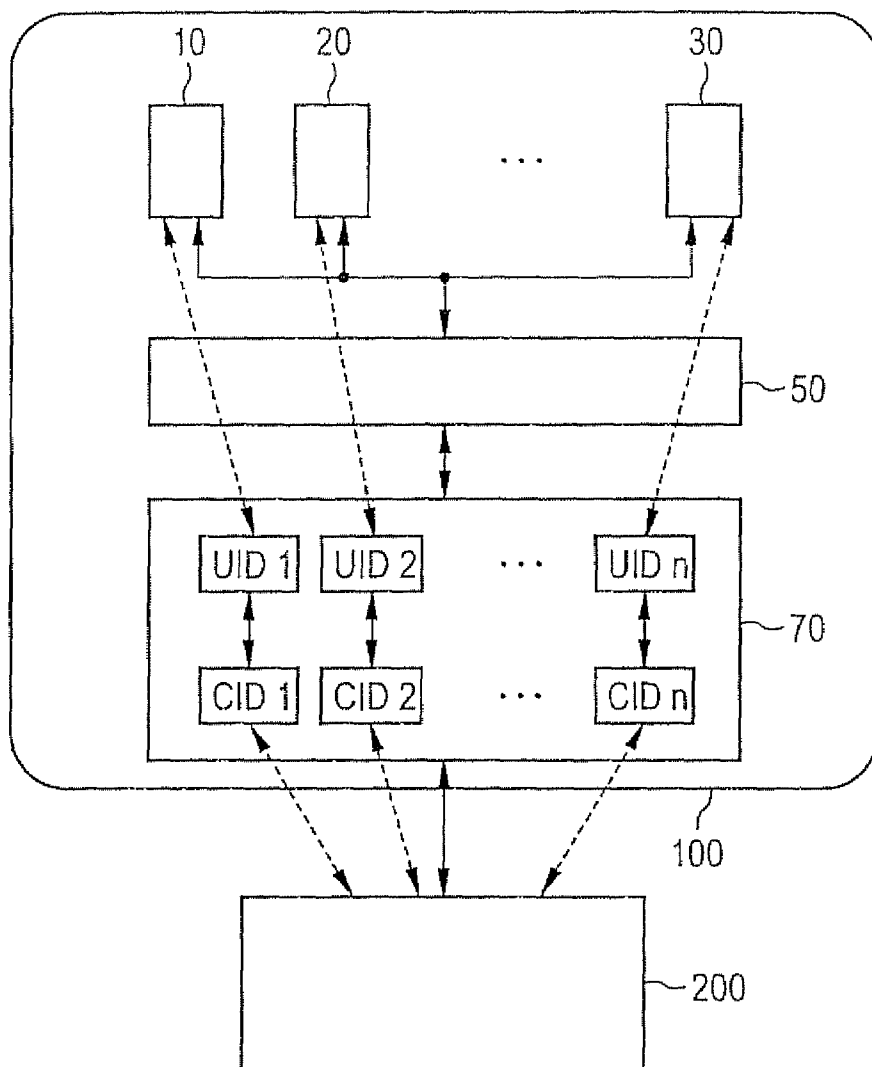


FIG 1



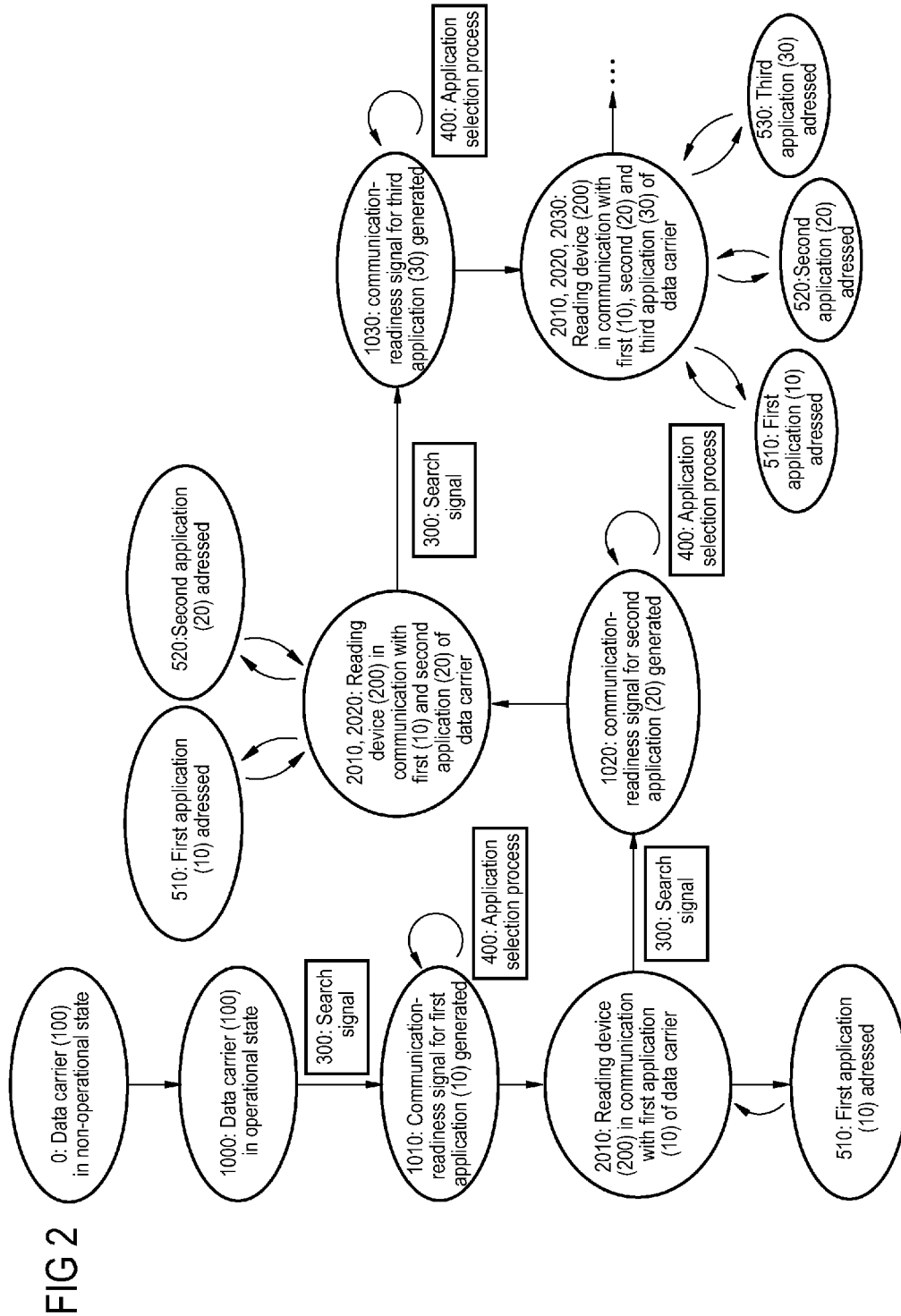


FIG 2

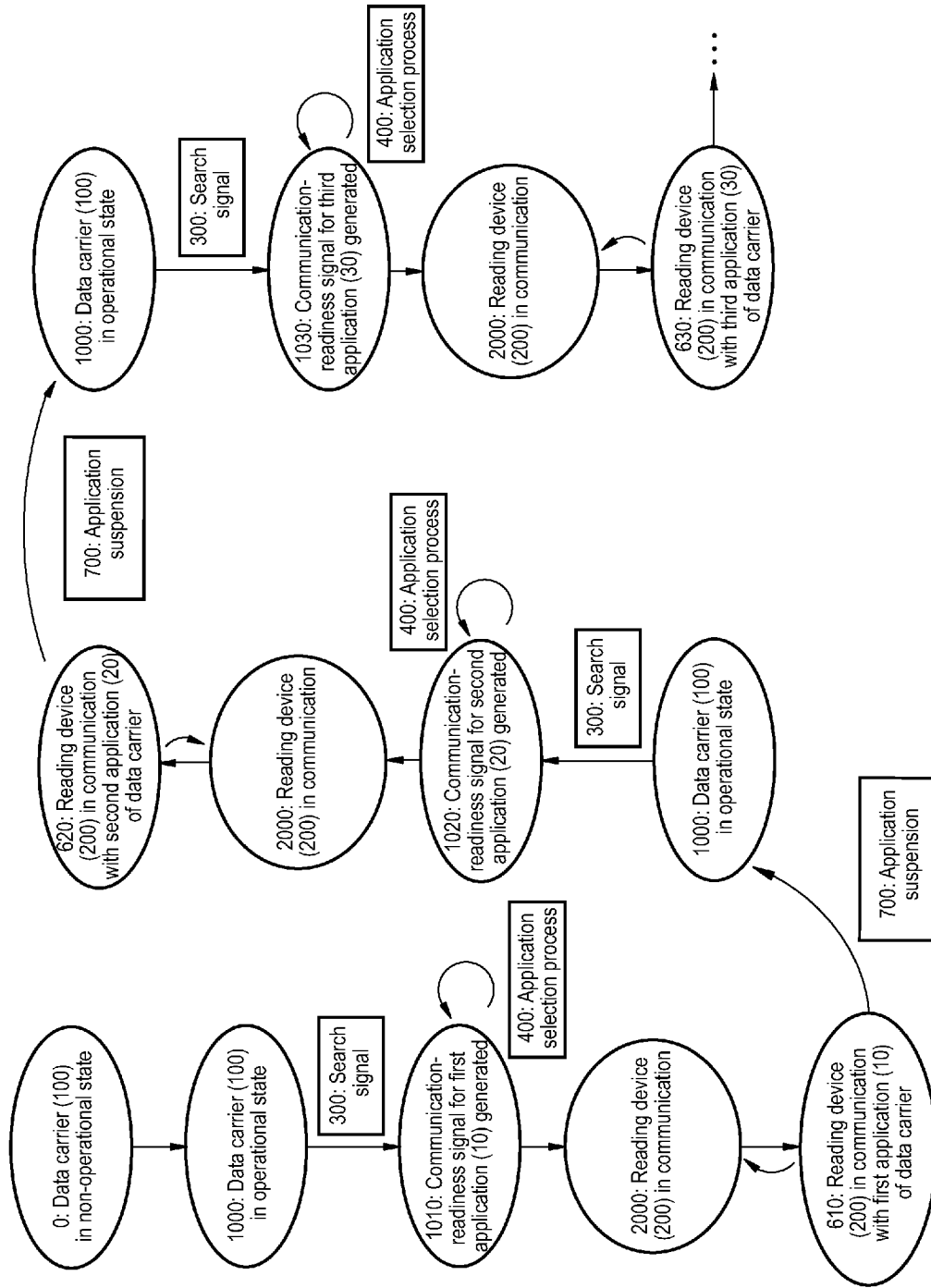


FIG 3

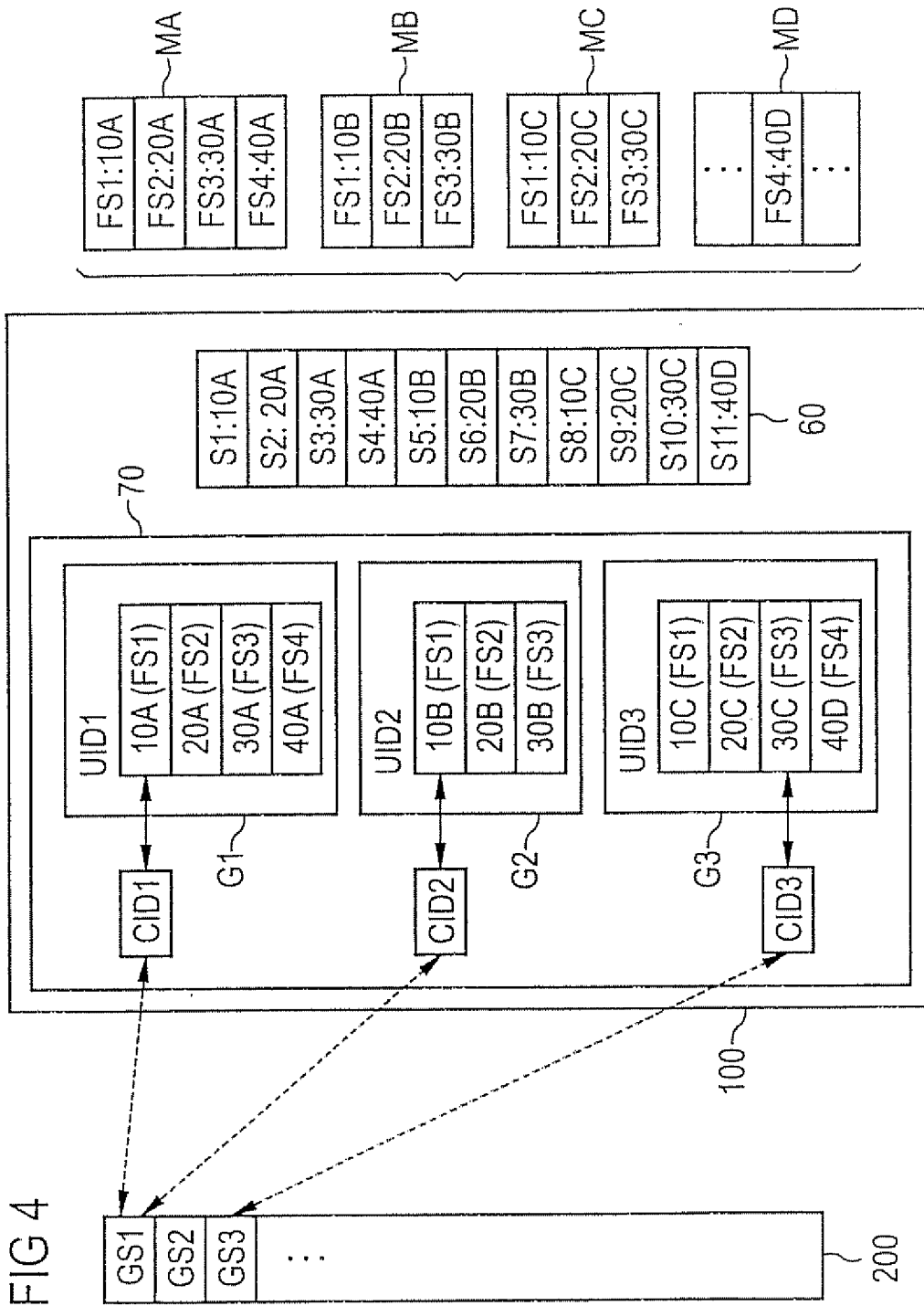


FIG 4

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.