



US007302683B2

(12) **United States Patent**
Ogilvy

(10) **Patent No.:** **US 7,302,683 B2**
(45) **Date of Patent:** ***Nov. 27, 2007**

(54) **METHOD AND APPARATUS FOR CONTROLLING COMMUNICATIONS**

(75) Inventor: **Ian Charles Ogilvy**, Manly (AU)
(73) Assignee: **CardSoft International Pty Limited**, Manly NSW (AU)
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **11/207,771**
(22) Filed: **Aug. 22, 2005**

(65) **Prior Publication Data**
US 2006/0015646 A1 Jan. 19, 2006

Related U.S. Application Data
(63) Continuation of application No. 09/381,143, filed on Oct. 22, 1999, now Pat. No. 6,934,945.

(30) **Foreign Application Priority Data**
Mar. 14, 1997 (AU) PO9896
Mar. 16, 1998 (WO) PCT/AU98/00173

(51) **Int. Cl.**
G06F 17/00 (2006.01)
(52) **U.S. Cl.** 718/1; 703/23; 703/26; 703/27; 709/200; 709/201; 709/208; 709/219; 719/310; 719/313; 719/315; 719/316
(58) **Field of Classification Search** 718/1; 719/310, 313, 315, 316; 703/23, 26, 27; 709/200, 201, 208, 219
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,336,870 A 8/1994 Hughes et al.
5,479,643 A 12/1995 Bhaskar
5,553,291 A 9/1996 Tanaka et al.
5,590,281 A 12/1996 Stevens
5,708,838 A 1/1998 Robinson
5,745,886 A 4/1998 Rosen
5,923,884 A * 7/1999 Peyret et al. 717/167
5,926,631 A 7/1999 McGarvey

(Continued)

FOREIGN PATENT DOCUMENTS

AU 2200088 9/1988

(Continued)

OTHER PUBLICATIONS

"Smarter Smartcards," Hofland & Janowski, Feb. 1998, Byte Magazine 401S, pp. 7-10, whole document.

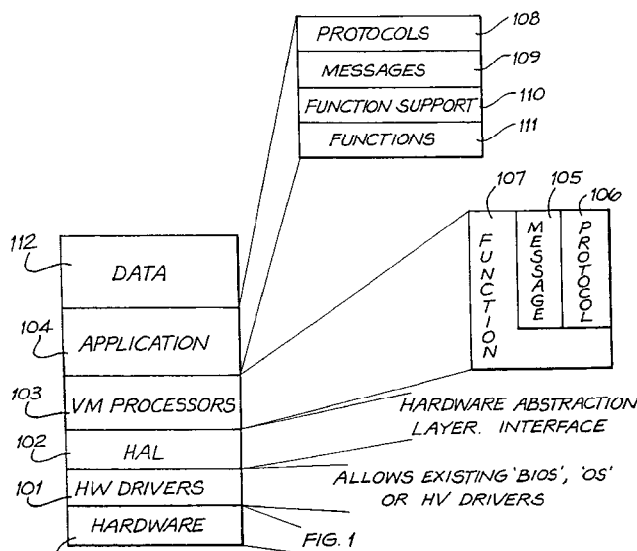
(Continued)

Primary Examiner—Phuoc Nguyen
(74) *Attorney, Agent, or Firm*—Duane Morris LLP

(57) **ABSTRACT**

Disclosed is a device arranged to process messages for communications, comprising a virtual machine means including a message processor means which is arranged to process messages communicated to and/or to be communicated from the device, and message processor instruction means, arranged to provide directions for operation of the message processor means. Also disclosed is a method for operating a device arranged to process messages for communications and a method of programming a device arranged to process messages for communications.

5 Claims, 12 Drawing Sheets



US 7,302,683 B2

Page 2

U.S. PATENT DOCUMENTS

5,931,917 A 8/1999 Nguyen et al.
5,935,249 A 8/1999 Stern et al.
6,021,275 A * 2/2000 Horwat 717/159
6,199,160 B1 3/2001 Echensperger et al.
6,308,317 B1 10/2001 Wilkinson et al.
6,934,945 B1 * 8/2005 Ogilvy 718/1

FOREIGN PATENT DOCUMENTS

EP 0456249 11/1991
EP 0634718 1/1995

WO 9212480 7/1992
WO 9305599 3/1993
WO 9410628 5/1994
WO 9727537 7/1997

OTHER PUBLICATIONS

"Java and the Shift to Net-Centric Computing," Hamilton, IEEE Computer, Aug. 1996, pp. 31-39, whole document especially "Java Virtual Machine," sidebar p. 32.

* cited by examiner

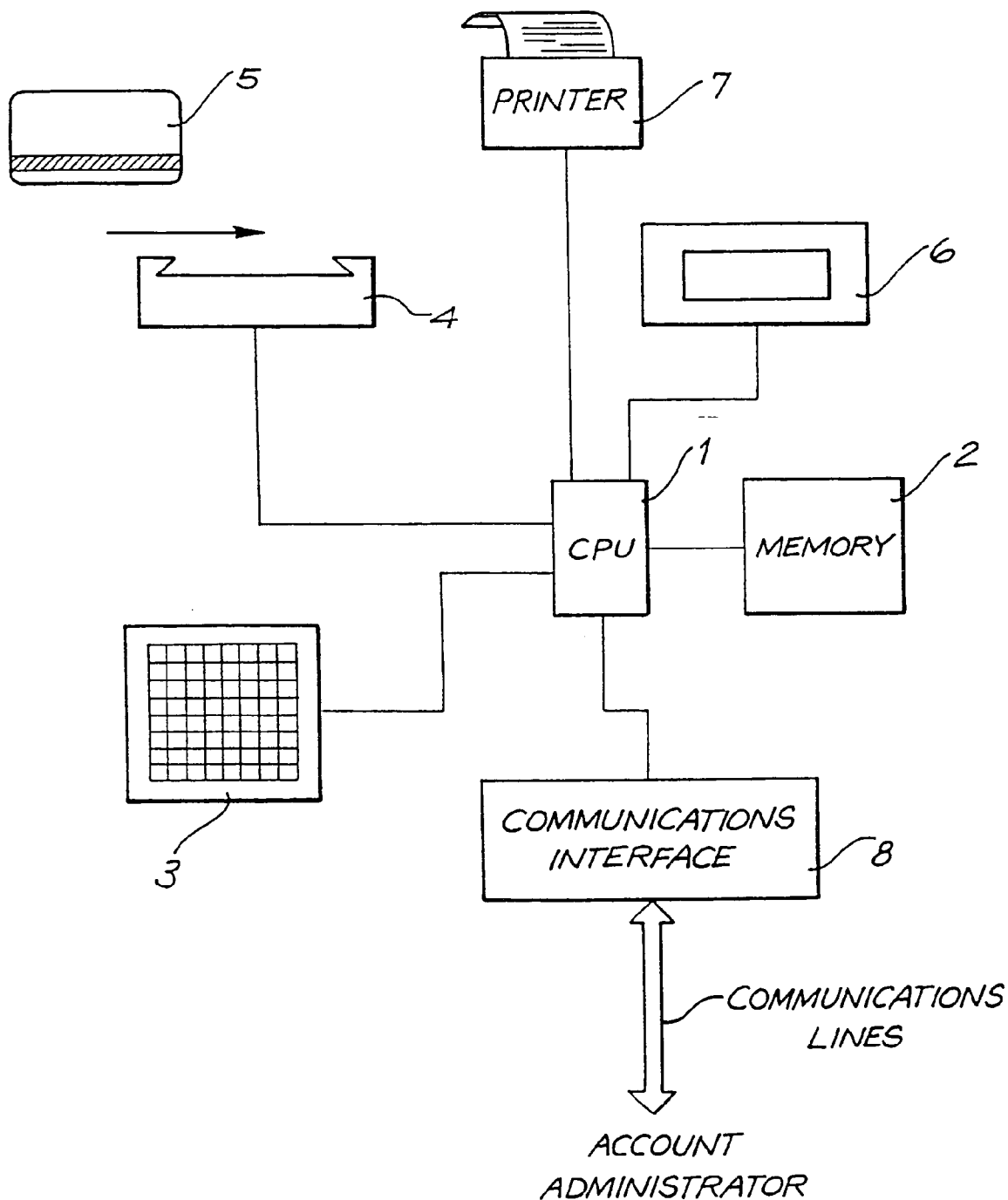


FIG. 1

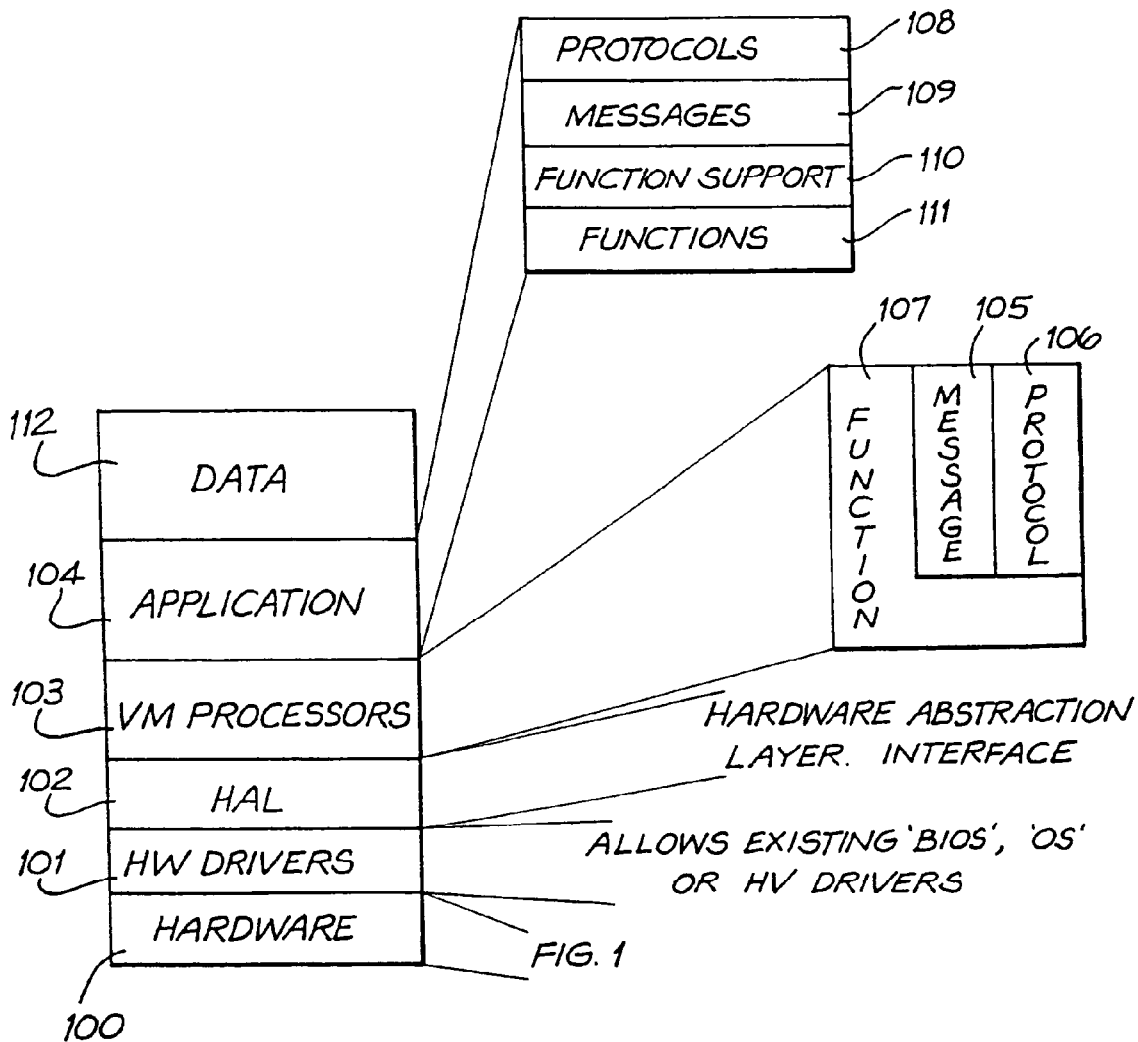


FIG. 2

(1) EVENT (EVENT DRIVEN STRUCTURE)
'CARDSWIPE' DETECTED BY
HW DRIVERS

TRACK 1	TRACK 2	TRACK 3
CUSTN.	PAN.	EXPD. END.



(2) CALL BACK TO EVENT TABLE (IN HAL)
LOOKS UP SEQUENCE OF COMMANDS
FOR CARDSWIPE EVENT, FROM INDEX

FIG. 3a



(3) FUNCTION PROCESSOR CALLED UP TO
COMMENCE IMPLEMENTATION OF
COMMANDS FOR CARD SWIPE

1	2	3	4
---	---	---	---

(1, 2, 0)
 'HANDLE IDLE CARD'
 'HANDLE CARD'
 'NO ACTION'

FIG. 3b



(4) SAVE INSTRUCTION IMPLEMENTED



(5) FUNCTION PROCESSOR CALLS UP
MESSAGE PROCESSOR



(6) FUNCTION PROCESSOR CALLS UP
MESSAGE INSTRUCTION MEANS
FOR CARD SWIPE EVENT

"
"
INSTRUCTION
DATA
DATA
INSTRUCTION
"
"

FIG. 3c



(7) MESSAGE PROCESSOR PLACES DATA
FROM CARD INTO FIELDS AS DIRECTED
BY MESSAGE INSTRUCTION MEANS



(8) NEXT FUNCTION / EVENT

FIG. 3

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.