(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
9 October 2003 (09.10.2003)

PCT

(10) International Publication Number
WO 03/083636 A1

(51) International Patent Classification[7]: G06F 3/06, 13/38

(21) International Application Number: PCT/GB03/00851

(22) International Filing Date: 3 March 2003 (03.03.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/115,726 2 April 2002 (02.04.2002) US

(71) Applicant: INTERNATIONAL BUSINESS MACHINES CORPORATION [US/US]; New Orchard Road, Armonk, NY 10504 (US).

(71) Applicant (for MG only): IBM UNITED KINGDOM LIMITED [GB/GB]; PO Box 41, North Harbour, Portsmouth, Hampshire PO6 3AU (GB).

(72) Inventors: APPERLEY, Norman; 13 Maytree Road, Chandlers Ford, Hampshire SO53 5RT (GB). LEGG, Stephen, Peter; 5 Brigantine Road, Warsash, Southampton, Hampshire SO31 9AD (GB). SHAH, Vinay, Velji; 29 Heathlands Road, Eastleigh, Hampshire SO53 1GU (GB).

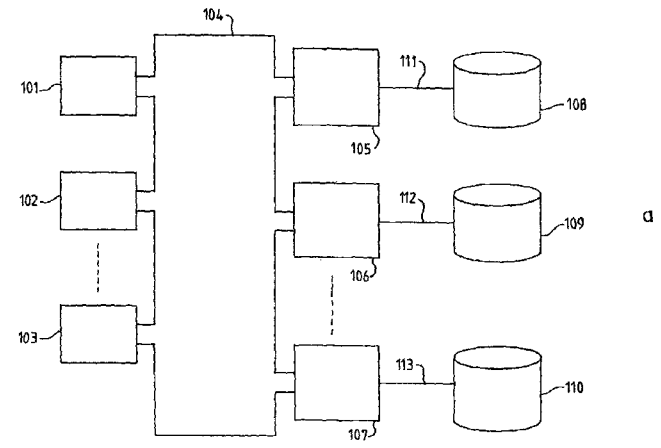
(74) Agent: BURT, Roger, James; IBM United Kingdom Limited, Intellectual Property Law, Hursley Park, Winchester, Hampshire SO21 2JN (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

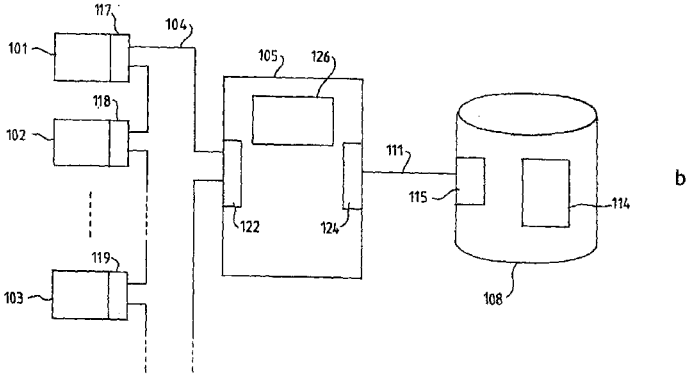
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: ADAPTER, CONVERTED DATA STORAGE DEVICE AND METHOD OF OPERATION OF A CONVERTED DATA STORAGE DEVICE



a



b

(57) Abstract: An adapter for converting an interface of a data storage device has a first interface for connection to the interface of the device and a second interface for connection to a host system. The adapter includes a processor including means for converting commands and data between the interfaces. It transforms the data storage device to emulate physically and logically a higher availability, higher performance native data storage device. The method of operating the converted data storage device includes steps of receiving commands and data destined for the device and converting them from the first interface to the second interface. The method also includes receiving a command with a header that identifies if the command is destined for the adapter or for the data storage device, extracting information from the header and directing the command to its correct destination.

WO 03/083636 A1

Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.