

10/01/03
2003000668

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

(19) World Intellectual Property Organization
International Bureau



ACTION

(43) International Publication Date
24 January 2002 (24.01.2002)

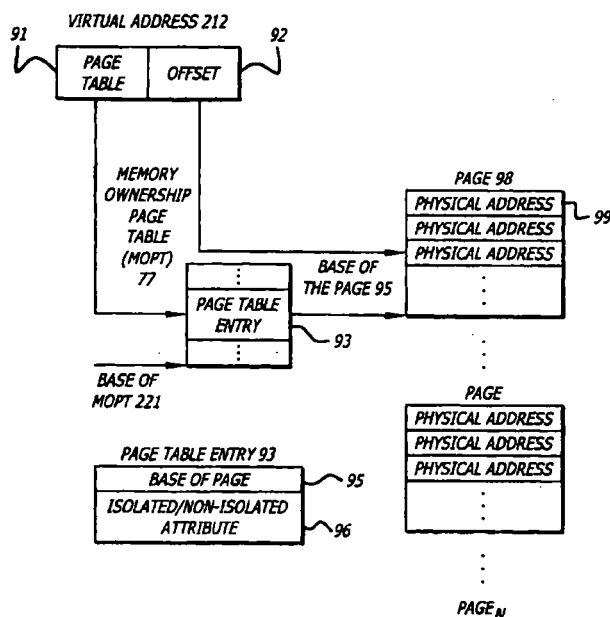
PCT

(10) International Publication Number
WO 02/06929 A3

- (51) International Patent Classification⁷: **G06F 12/14**
- (21) International Application Number: **PCT/US01/22027**
- (22) International Filing Date: **13 July 2001 (13.07.2001)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:
09/618,738 **18 July 2000 (18.07.2000)** **US**
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- (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, 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, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, 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
- (88) Date of publication of the international search report:
25 April 2002

[Continued on next page]

(54) Title: CONTROLLING ACCESS TO MULTIPLE ISOLATED MEMORIES IN AN ISOLATED EXECUTION ENVIRONMENT



(57) Abstract: The present invention provides a method, apparatus, and system for controlling memory accesses to multiple isolated memory areas in an isolated execution environment. A page manager is used to distribute a plurality of pages to a plurality of different areas of a memory, respectively. The memory is divided into non-isolated areas and isolated areas. The page manager is located in an isolated area of memory. Further, a memory ownership page table describes each page of memory and is also located in an isolated area of memory. The page manager assigns an isolated attribute to a page if the page is distributed to an isolated area of memory. On the other hand, the page manager assigns a non-isolated attribute to a page if the page is distributed to a non-isolated area of memory. The memory ownership page table records the attribute for each page. In one embodiment, a processor having a normal execution mode and an isolated execution mode generates an access transaction. The access transaction is configured using a configuration storage that contains configuration settings related to a page and access information. An access checking circuit coupled to the configuration settings and the access information and generates an access grant signal if the access transaction is valid.

WO 02/06929 A3



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WO 02/06929 A3

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