

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
17 September 2020 (17.09.2020)



(10) International Publication Number
WO 2020/182664 A1

(51) International Patent Classification:

G06F 21/62 (2013.01) G06F 9/455 (2018.01)
G06F 12/10 (2016.01)

(21) International Application Number:

PCT/EP2020/056033

(22) International Filing Date:

06 March 2020 (06.03.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

16/296,301 08 March 2019 (08.03.2019) US

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

(71) Applicant (for MG only): **IBM DEUTSCHLAND GMBH** [DE/DE]; c/o IBM Deutschland Management & Business Support GmbH, Patentwesen und Urheberrecht, IBM Allee 1, 71139 Ehningen (DE).

(72) Inventors: **IMBRENDA, Claudio**; c/o IBM Deutschland Research & Development GmbH, Schoenaicher Strasse 220, 71032 Boeblingen (DE). **BORNTRAEGER, Christian**; c/o IBM Deutschland Research & Development

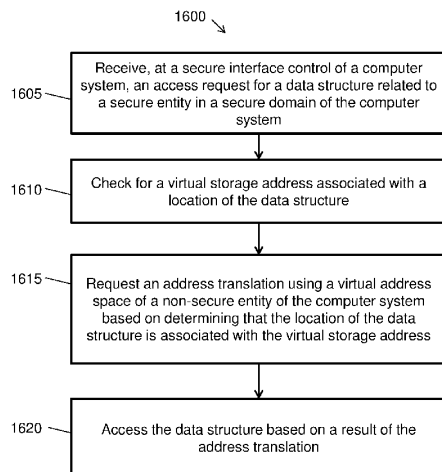
GmbH, Schoenaicher Strasse 220, 71032 Boeblingen (DE). **HELLER, Lisa**; c/o IBM Corp., 2455 South Road, Poughkeepsie, New York 12601 (US). **BUSABA, Fadi**; c/o IBM Corp., 2455 South Road, Poughkeepsie, New York 12601 (US). **BRADBURY, Jonathan**; c/o IBM Corp., 2455 South Road, Poughkeepsie, New York 12601 (US).

(74) Agent: **LAUX, Felix**; c/o IBM Deutschland Management & Business Support GmbH, Patentwesen und Urheberrecht, IBM Allee 1, 71139 Ehningen (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,

(54) Title: HOST VIRTUAL ADDRESS SPACE FOR SECURE INTERFACE CONTROL STORAGE



(57) Abstract: According to one or more embodiments of the present invention, a computer implemented method includes receiving, at a secure interface control of a computer system, an access request for a data structure related to a secure entity in a secure domain of the computer system. The secure interface control can check for a virtual storage address associated with a location of the data structure. The secure interface control can request an address translation using a virtual address space of a non-secure entity of the computer system based on determining that the location of the data structure is associated with the virtual storage address. The secure interface control can access the data structure based on a result of the address translation.

FIG. 16

[Continued on next page]

TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*