



- (51) **International Patent Classification:**
G06F 9/455 (2006.01) *G06F 9/00* (2006.01)
- (21) **International Application Number:**
PCT/US2013/056524
- (22) **International Filing Date:**
23 August 2013 (23.08.2013)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
13/593,226 23 August 2012 (23.08.2012) US
- (71) **Applicant:** **AMAZON TECHNOLOGIES, INC.**
[US/US]; P.O. Box 8102, Reno, Nevada 89507 (US).
- (72) **Inventors:** **MARR, Michael David**; 410 Terry Ave. North, Seattle, Washington 98107 (US). **KOWALSKI, Marcin P.**; 410 Terry Ave. North, Seattle, Washington 98107 (US).
- (74) **Agents:** **LOHR, Jason D.** et al.; Novak Druce Connolly Bove + Quigg LLP, 1000 Louisiana Street, Fifty-Third Floor, Houston, Texas 77002 (US).
- (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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, 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, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, 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,

[Continued on next page]

(54) **Title:** SCALING A VIRTUAL MACHINE INSTANCE

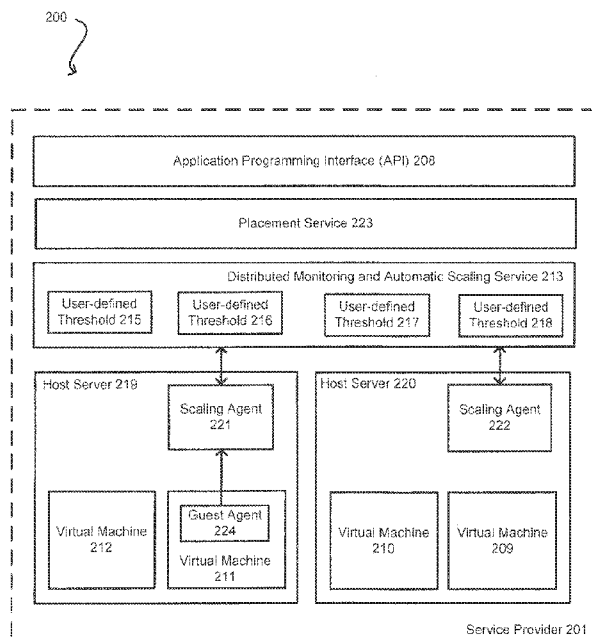


FIGURE 2

(57) **Abstract:** Techniques are described for scaling of computing resources. A scaling service is utilized that allocates additional computing resources (e.g., processors, memory, etc.) to a virtual machine instance (or other compute instance) and/or de-allocates computing resources from a virtual machine instance according requests and/or thresholds. In addition to the foregoing, other aspects are described in the description, figures, and claims.



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

Published:

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

(88) Date of publication of the international search report:

8 May 2014