

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
12 June 2025 (12.06.2025)



(10) International Publication Number
WO 2025/119232 A9

- (51) International Patent Classification:
G06F 16/901 (2019.01)
- (21) International Application Number:
PCT/CN2024/136838
- (22) International Filing Date:
04 December 2024 (04.12.2024)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
202311685206.8 08 December 2023 (08.12.2023) CN
- (71) Applicant: **GRABTAXI HOLDINGS PTE. LTD.**
[SG/SG]; 3 Media Close #01-03/06 Singapore 138498 (SG).
- (72) Inventors: **LU, Wenxiang**; c/o 3 1701, 17/F, Building 19, No.5 Anding Road, Chaoyang District, Beijing 100029 (CN). **LI, Muqi**; c/o 777 108th Avenue NE Bellevue, WA 98004 (US). **CHEN, Jia**; c/o 3 Media Close, #01-03/06 Singapore, 138498 (SG).
- (74) Agent: **KANGXIN PARTNERS, P.C.**; Floor 16, Tower A, In Do Building A48 Zhichun Road, Haidian District, Beijing 100098 (CN).
- (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,

(54) Title: ACTION-BASED GRAPH FRAMEWORK AND QUERY METHOD

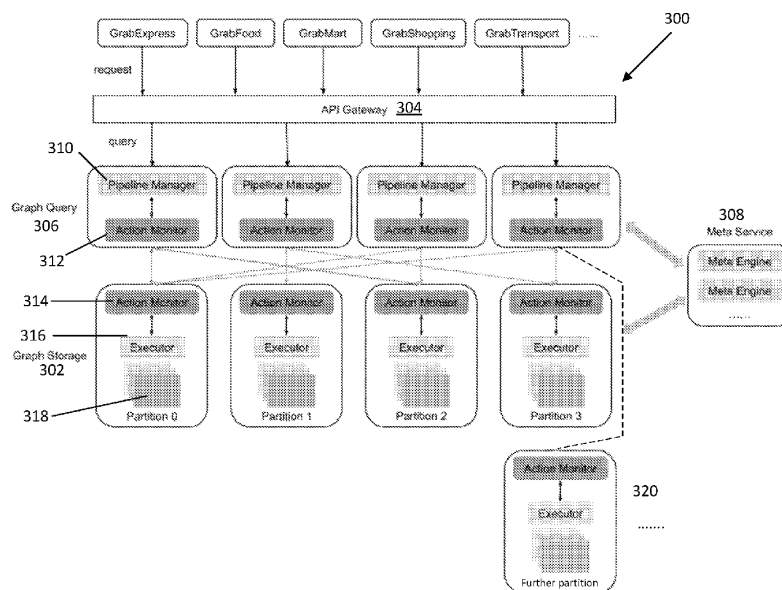


Figure 3

(57) **Abstract:** Disclosed is a network and method for creating and searching a graph in a massively parallel manner. The network includes a plurality of graph storage instances that collectively store a graph formed from a plurality of entities and comprising a vertex for each entity, edges connecting pairs of vertices, and adjacency relations. Each graph storage instance stores a subgraph of the graph and comprises a partition with a non-overlapping vertex set of all the vertices in the respective subgraph, an edge set of all the edges between vertices in the respective vertex set, and the adjacency relations for the edge set and to any edges outside the partition, to which the edge set connects. Each graph storage instance also includes an executor for executing one or more of the actions over the respective subgraph, and an action monitor for supplying actions to the respective executor.

[Continued on next page]

CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,
MA, MD, MG, MK, MN, MU, 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, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, 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, ME, 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))

(48) Date of publication of this corrected version:

15 May 2026 (15.05.2026)

(15) Information about Correction:

see Notice of 15 May 2026 (15.05.2026)