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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
04 September 2025 (04.09.2025)

WIPO | PCT

(10) International Publication Number
WO 2025/179905 A1

(51) International Patent Classification:
G06F 3/06 (2006.01)

(21) International Application Number:
PCT/CN2024/125315

(22) International Filing Date:
16 October 2024 (16.10.2024)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
202410233433.5 29 February 2024 (29.02.2024) CN

(71) Applicant: **ZHEJIANG DAHUA TECHNOLOGY CO., LTD.** [CN/CN]; No. 1187 Binan Road, Binjiang District, Hangzhou, Zhejiang 310053 (CN).

(72) Inventors: **JIANG, Wenlong**; No. 1187 Binan Road, Binjiang District, Hangzhou, Zhejiang 310053 (CN). **LI, Kongqiang**; No. 1187 Binan Road, Binjiang District, Hangzhou, Zhejiang 310053 (CN). **XU, Tao**; No. 1187 Binan Road, Binjiang District, Hangzhou, Zhejiang 310053 (CN). **LUO, Xin**; No. 1187 Binan Road, Binjiang District, Hangzhou, Zhejiang 310053 (CN).

(74) Agent: **METIS IP (CHENGDU) LLC**; Room 401, 4th Floor, Unit 1 of Building 1, No. 269 North Section of Hupan Road, Tianfu New District, China Free Trade Zone (Sichuan) Chengdu, Sichuan 610213 (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, 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).

(54) Title: METHODS, SYSTEMS, AND STORAGE MEDIA FOR DATA STORAGE

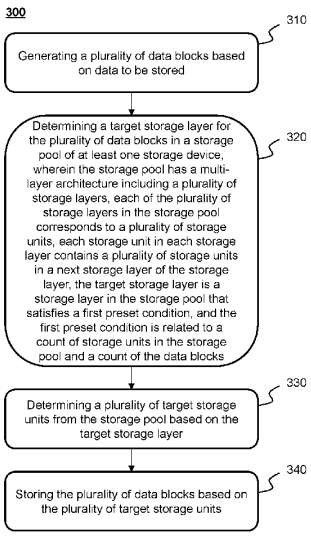


FIG. 3

(57) Abstract: A data storage method is provided. The method includes generating a plurality of data blocks based on data to be stored and determining a target storage layer for the plurality of data blocks in a storage pool of at least one storage device. The storage pool has a multi-layer architecture including a plurality of storage layers. Each of the plurality of storage layers in the storage pool corresponds to a plurality of storage units, each storage unit in each storage layer contains a plurality of storage units in a next storage layer of the storage layer. The target storage layer is a storage layer in the storage pool that satisfies a first preset condition. The method further includes determining a plurality of target storage units from the storage pool based on the target storage layer and storing the plurality of data blocks based on the plurality of target storage units.

WO 2025/179905 A1

[Continued on next page]

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