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(71) Applicant: **COUPANG CORP.** [KR/KR]; 570 Songpa-daero, Songpa-gu, Seoul 05510 (KR).

(72) Inventors: **MA, Ke**; 570 Songpa-daero, Songpa-gu, Seoul 05510 (KR). **GU, Bin**; 570 Songpa-daero, Songpa-gu,

Seoul 05510 (KR). **WANG, Nan**; 570 Songpa-daero, Songpa-gu, Seoul 05510 (KR).

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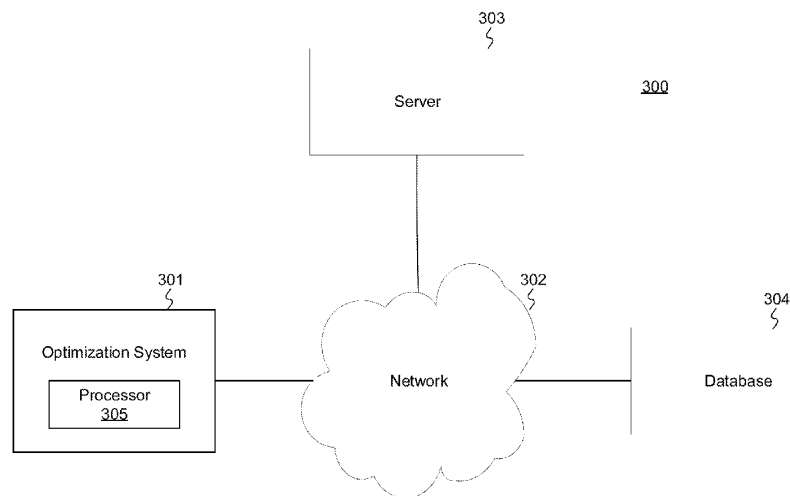


FIG. 3

(57) Abstract: The embodiments of the present disclosure provide systems and methods for optimizing allocation of products, comprising receiving an initial set of solutions comprising an initial distribution of a plurality of stock keeping unit (SKUs) among a plurality of fulfillment centers (FCs), and running a simulation of each solution of the initial set of solutions. Participation ratios may be calculated for each solution, and a score for each solution may be determined based on the calculated participation ratio. At least one solution with a highest determined score may be selected to feed a simulation algorithm to generate one or more additional solutions. Based on a best-performing solution, an allocation of the plurality of SKUs among the plurality of FCs may be modified. The best-performing solution may have the highest determined score among all solutions generated.

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