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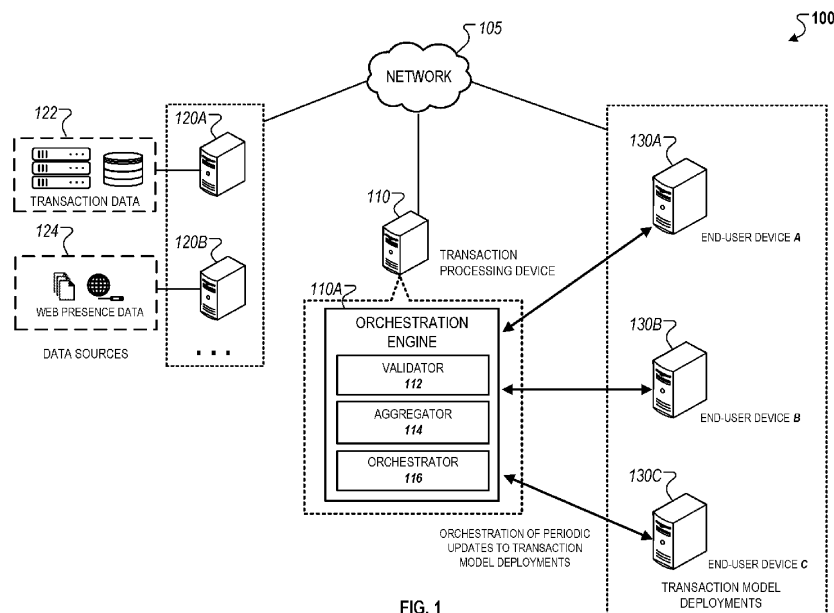


FIG. 1

(57) Abstract: Systems and techniques are described for orchestrating iterative updates to machine learning models (e.g., transaction models) deployed to multiple end-user devices. In some implementations, output data generated by a first transaction model deployed at a first end-user device is obtained. The first transaction model is trained to apply a set of evidence factors to identify potentially anomalous activity associated with a first target entity. An adjustment for a second transaction model deployed at a second end-user device is determined. The second transaction model is trained to apply the set of evidence factors to identify potentially anomalous activity associated with a second target entity determined to be similar to the first target entity. A model update for the second transaction model is generated. The model update specifies a change to the second transaction model. The model update is provided for output to the second end-user device.

[Continued on next page]

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