

ABSTRACT

Embodiments herein provide an automated system 100 for transaction queueing and forwarding to a core banking system (CBS) 110 to prevent technical failures. The system involves (i) obtain base thread pool size for CBS 110 based on the CBS 110 configuration, 5 (ii) determine plurality of transaction control parameters including average response time, incoming transactions per second (TPS), required TPS, and base thread pool size, (iii) evaluate dynamic thread pool size of CBS 110 based on the determined transaction control parameters, (iv) train an AI model using training parameters including concurrent requests, response times of transactions, TPS values, and thread utilization ratios, (v) dynamically 10 adjust the thread pool size using trained AI model 116 based on CBS 110 load variations, and (vi) manage transactions through multi-zone queues including primary queue 402A, high-priority queue 402B, and dead queue 402C, (vii) forward the transaction from the high priority queue 402B for execution.

FIG. 1