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(57) Abstract :

The system (100) is a dynamic solution for managing latency and correcting drift in a computer system. It comprises a latency management module (102) responsible for real-time latency monitoring and adjustment and a drift correction module (104) dedicated to monitoring and correcting system output drift. Working collaboratively, these modules enhance system performance and accuracy. The latency management module (102) optimizes parameters like buffer sizes and transmission rates to reduce latency while maintaining stability. The drift correction module employs adaptable software-based methods for correcting drift and utilizes machine learning to predict and correct drift. Together, they analyze latency and drift patterns over time, making predictions about future latency and drift. This versatile system finds application in communication networks, data centers, and high-performance computing systems and leverages historical performance data for predictive adjustments.

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