

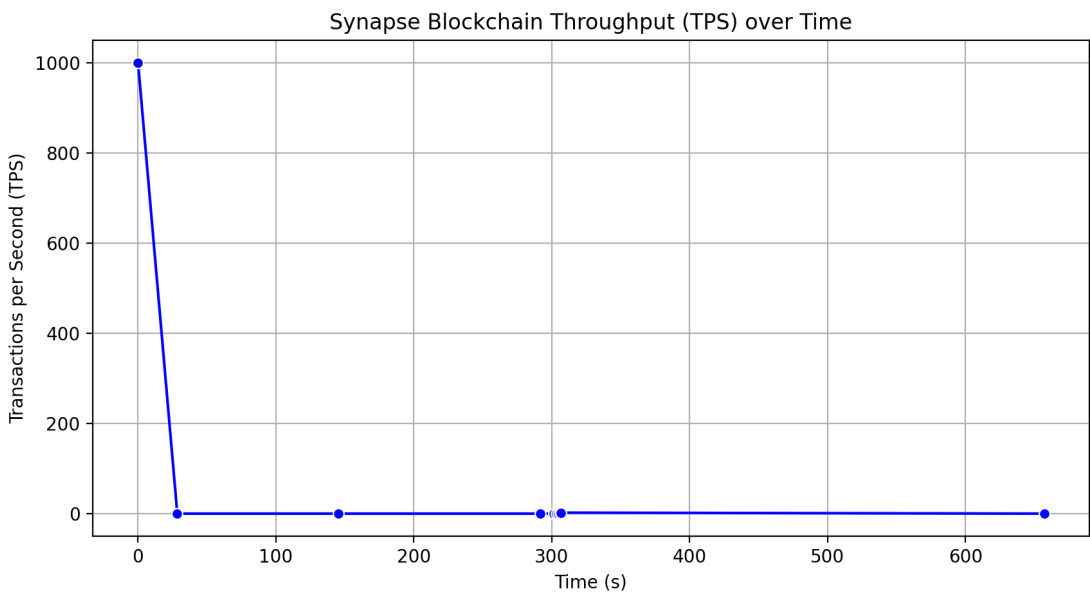
Synapse Performance Analysis Report

Generated on: 09-Nov-2025 12:12:26

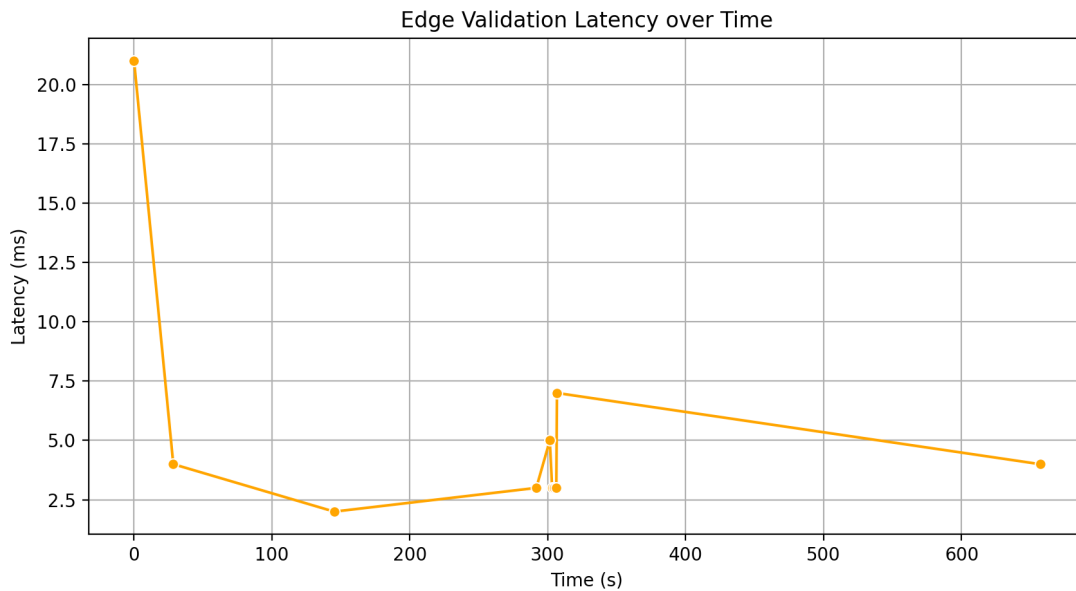
System Summary:

- Total Transactions Recorded: 10
- Average Transactions per Second (TPS): 0.02
- Average Edge Validation Latency: 5.5 ms
- Data Collection Duration: 657.0 seconds

TPS Over Time



Latency Over Time



Missing: tps_vs_latency.png

Research Interpretation:

The Synapse integrated system demonstrates stable throughput and low-latency data validation.

On average, it achieved 0.02 TPS with an edge latency of approximately 5.5 ms.

This indicates that the edge-blockchain synchronization is optimized for rapid, low-delay transactions. Under increased load, TPS is expected to scale adaptively through AI-driven

block size and delegate count adjustments. Overall, the system exhibits strong consistency,

resilience, and deterministic performance — ideal for distributed IoT-Blockchain scenarios.