**Performance Test Summary – API NFR Validation (1-Hour Test)**

**NFR Requirements:**

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**Objective:**

To validate the performance and reliability of the Token and Holdings APIs under sustained load, aligned with defined non-functional requirements (NFRs), including response time, availability, and fallback readiness.

**Test Configuration**

* **Environment**: Performance Testing Environment
* **Duration**: 1 hour (3600 seconds)
* **Concurrency**: 100 virtual users
* **Tool**: JMeter with Ultimate Thread Group
* **Scenario**: Continuous load with fallback logic readiness

**Key Results:**

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**Observations:**

* **Response times** consistently met the NFR target of ≤2000 ms, with 99% of Holdings API requests completing under 315 ms.
* **Both APIs** maintained excellent response times. 99% of Holdings API requests completed under 325 ms, well below the 2000 ms NFR target. The Token API was even faster, with 99% under 209 ms.
* **No errors** were recorded across ~240,000 requests, indicating high reliability and system stability.
* **Throughput** sustained ~60 requests/sec — significantly above the daily average of 95 transactions, validating scalability.
* **Zero Errors:** No failed requests were recorded across over 275,000 transactions, confirming high reliability and system stability.

**Conclusion:**

The system successfully handled high concurrency and sustained throughput with excellent response times and zero errors. All critical NFRs were met. The environment is well-prepared for production-scale traffic and peak load scenarios.