



**ANASTASIA LABS**

**Proof of Achievement – Milestone 4**

Keeping Pace with Cardano Evolution

**Project Number** 1100024

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**Project Name:** Lucid Evolution: Redefining Off-Chain Transactions in Cardano

**URL:** [Catalyst Proposal](#)

## Evidence Definition

Document with performance benchmark results comparing the optimized SanchoNet features with previous version (<https://github.com/spacebudz/lucid/releases/tag/0.10.7>) or benchmarks, demonstrating improvements achieved

## Performance Benchmark

Our optimization efforts seen in the previous report section have yielded remarkable improvements in governance operation execution times, achieving a maximum: **99.6%**, minimum: **99.1%** reduction in measured processing time across our governance endpoints

### Comparative Analysis

#### Previous Governance Endpoint

- registerDRep: 2234ms
- updateDRep: 2161ms
- deregisterDRep: 2261ms
- registerScriptDRep: 2198ms
- deregisterScriptDRep: 2195ms

#### Optimized Governance Endpoint

- registerDRep: Slashed from 2234ms to a mere 11ms **(-99.5%)**
- updateDRep: Improved from 2161ms to just 9ms **(-99.6%)**
- deregisterDRep: Enhanced from 2261ms to 9ms **(-99.6%)**
- registerScriptDRep: Reduced from 2198ms to 19ms **(-99.1%)**
- deregisterScriptDRep: Down from 2195ms to 19ms **(-99.1%)**

### Implementation Context

It's important to note that a direct comparison with the legacy Lucid library (version 0.10.7) is not possible, as governance features were not supported in that version. The performance metrics presented above demonstrate the improvement between our initial implementation and the current optimized state within the Lucid Evolution library.

### Visual Demonstration

For a visual representation of these performance improvements, you can view our [benchmark comparison demonstration](#)