**Proposed L1 Incentive Structure**

**Background**

The Hatchyverse ecosystem is expanding to include an Avalanche L1 chain to provide a more accessible and cost-effective infrastructure for games and services within the Hatchy IP. To ensure network stability and prevent data corruption, we need a minimum of 15 active validators with high uptime.

**Current Challenges**

* High operational costs (~$12,000 minimum per validator annually)
* Current HATCHY token value ($0.001) requires large token allocations for meaningful incentives
* Need for consistent uptime and long-term commitment
* No slashing mechanism available for poor performance

**Initial Bonus Program**

* Bonus for the first 15 validators who commit to running a node for at least 12 months
* Reward structure: Lower of 7,500,000 HATCHY tokens OR $7,500 USD equivalent in HATCHY
* Milestone-based distribution schedule:
  + 10%: Lower of 750K HATCHY OR $750 USD equivalent upon successful node setup
  + 20%: Lower of 1.5M HATCHY OR $1,500 USD equivalent after 3 months
  + 30%: Lower of 2.25M HATCHY OR $2,250 USD equivalent after 6 months
  + 40%: Lower of 3M HATCHY OR $3,000 USD equivalent after 12 months
* DAO will sponsor the initial staking requirement: Lower of 500,000 HATCHY OR $500 USD equivalent
* Total maximum allocation: 120M HATCHY (subject to price-based adjustments)

**Transaction Fee Structure**

* Dynamic fee structure based on transaction volume:
  + Base fee: Lower of 0.1 HATCHY OR $0.0001 USD equivalent per transaction
  + Volume-based reduction:
    - First 1M monthly transactions: 100% of base fee
    - 1M-5M monthly transactions: 50% of base fee
    - 5M-10M monthly transactions: 25% of base fee
    - 10M+ monthly transactions: 10% of base fee
* Distribution of fees:
  + 70% to active validators (distributed monthly based on performance)
  + 30% to DAO reserve for future validator incentives
* Monthly minimum guarantee during the first year: Lower of 1.67M HATCHY OR $1,667 USD equivalent in total validator rewards
* Monthly rewards only distributed to validators meeting performance requirements

**Annual Staking Rewards**

* Annual allocation
* Distributed quarterly to active validators meeting performance criteria
* Scaled based on uptime percentage (minimum 95% required)
* Validators must maintain performance requirements for a full quarter to receive rewards

**Performance Requirements**

* Minimum 95% individual validator uptime requirement
* Network-wide uptime target of 99.9% through redundancy
* Real-time uptime monitoring and reporting
* Monthly performance reviews with potential reward adjustments
* Validators must stake 1,000,000 HATCHY tokens ($1,000)
* 30-day notice required before withdrawing from validation
* Maximum 4-hour recovery time objective (RTO) for any outages

**Infrastructure Requirements**

* Minimum 16GB RAM (8GB absolute minimum)
* 8 CPU cores (4 cores absolute minimum)
* 100GB+ SSD storage
* Port 9651 must be open and properly configured
* Redundant network connectivity
* Backup power systems recommended

**Infrastructure Diversity Suggestions**

* No more than 20% of validators should use the same cloud provider (e.g., AWS, GCP, Azure)
* Geographic distribution requirements:
  + Maximum 30% of validators in any single geographic region
  + Minimum presence in 3 different continents
  + No more than 40% of validators in any single country
* Mix of infrastructure types:
  + Cloud-hosted validators (max 60% of total)
  + Bare metal/dedicated servers (min 30% of total)
  + Optional: Self-hosted infrastructure (up to 10% of total)

**Monitoring and Reporting**

* Real-time validator health monitoring
* Automated alerting system for performance issues
* Monthly uptime reports to DAO
* Quarterly performance audits
* Public dashboard for transparency

**Cost Analysis**

**DAO-Operated Nodes (5 nodes)**

* Annual cost: ~$30,000
* Infrastructure management overhead
* Centralization risks

**Community-Operated Model (15+ nodes)**

* First year cost breakdown:
  + Initial bonus program:
    - Per validator: Lower of 7.5M HATCHY OR $7,500 USD equivalent
    - Total for 15 validators: Lower of 112.5M HATCHY OR $112,500 USD equivalent
* - Annual staking sponsorship:
* - Per validator: Lower of 500K HATCHY OR $500 USD equivalent
* - Total for 15 validators: Lower of 7.5M HATCHY OR $7,500 USD equivalent
* - Annual staking rewards:
* - Per validator: Lower of 1.67M HATCHY OR $1,667 USD equivalent
* - Total pool: Lower of 25M HATCHY OR $25,000 USD equivalent
* - Transaction fees (variable based on volume):
* - Minimum guarantee: Lower of 20M HATCHY OR $20,000 USD equivalent
* - Maximum annual pool: Lower of 300M HATCHY OR $300,000 USD equivalent
* - Benefits:
* - Greater decentralization
* - Reduced operational overhead for DAO
* - Scalable cost structure for high transaction volumes
* - Protected from token price volatility in both directions

## Implementation Timeline

1. Month 1: Open validator applications and begin selection process

2. Month 2: Initial validator selection, infrastructure verification, and setup

3. Month 3: Launch network with minimum 15 validators

- Initial 10% bonus distribution upon successful launch

- Begin monitoring performance metrics

4. Month 4-6: First quarterly performance review

- 20% bonus distribution to qualifying validators

5. Month 7-9: Second quarterly performance review

- 30% bonus distribution to qualifying validators

6. Month 10-12: Final quarterly performance review

- 40% bonus distribution to qualifying validators

## Success Metrics

- Maintain minimum 15 active validators

- Network uptime >99.9% (measured across all validators)

- Transaction processing time <1 second

- Monthly growth in transaction volume

- Zero unplanned outages

- 100% successful monthly validator audits

## Future Considerations

- Automatic adjustment of HATCHY rewards based on token value changes

- Introduction of delegation system

- Development of additional validator incentives tied to ecosystem growth

- Implementation of archival node system for state recovery

## Economic Impact

Given current HATCHY value ($0.001):

- Each validator's maximum first-year earnings:

- Bonus: Lower of 7.5M HATCHY OR $7,500 USD equivalent

- Transaction fees: Lower of 20M HATCHY OR $20,000 USD equivalent (capped)

- Staking rewards: Lower of 1.67M HATCHY OR $1,667 USD equivalent

- Program cost scales with network usage

- Built-in fee reduction for high volume

- Protection against token price volatility in both directions

- No upfront staking cost for initial 15 validators

## Voting

This proposal requires a majority vote from HATCHY token holders to proceed.

### Voting Options

- Yes: Implement the proposed validator incentive structure

- No: Maintain current structure and explore alternatives

## Resource Requirements

Initial maximum allocation from the DAO reserve for first-year operations:

- Bonus program: Lower of 112.5M HATCHY OR $112,500 USD equivalent

- Sponsored staking: Lower of 7.5M HATCHY OR $7,500 USD equivalent

- Annual staking rewards: Lower of 25M HATCHY OR $25,000 USD equivalent

- Transaction fee guarantees: Lower of 20M HATCHY OR $20,000 USD equivalent

- Additional reserve for high-volume scenarios: 280M HATCHY

- All allocations adjusted based on token price at time of distribution

## Risk Mitigation

1. Quarterly review of validator performance

2. Emergency backup nodes maintained by the DAO

3. Regular adjustment of incentives based on network usage and token value

4. External archive state drive for recovery purposes

5. Monthly validator performance reviews with potential for bonus adjustments

6. Automated failover testing requirements

7. Required disaster recovery plans

8. Geographic redundancy requirements

### Penalty Structure

- Validators falling below 95% individual uptime face graduated penalties:

- First occurrence: Warning and 25% reduction in rewards for the month

- Second occurrence: 50% reduction in rewards for the month

- Third occurrence: Removal from validator set with 30-day cooldown period

- Immediate removal for:

- Critical security breaches

- Malicious behavior

- Extended unplanned outages (>24 hours)

- Violation of infrastructure diversity requirements