LumosDAO Voting Power Calculation Documentation

Introduction

This document aims to provide a comprehensive guide to understanding how the Voting Power is calculated in the LumosDAO ecosystem. The Voting Power is a significant metric as it influences the weight of a member's vote in any proposal within a DAO. It is calculated based on three primary factors:

- Token Holdings
- DAO Activity
- Wallet Metrics

Voting Power Formula

The Voting Power (VP) for any member is calculated using the following weighted formula:
VP = (0.5 * Token Holdings Score) + (0.25 * DAO Activity Sub-score) + (0.25 * Wallet Metrics Sub-score)

Scoring System

Token Holdings Score (1-5)

The score is assigned based on the member's ranking among the DAO's token holders:

- Top 5 holders: Score = 5
- Rank 6-50: Score = 4
- Rank 51-100: Score = 3
- Rank 101-500: Score = 2
- Rank 500+: Score = 1

DAO Activity Score (1-5 for each metric)

Number of Voted Proposals:

- 0 proposals: Score = 1
- 1-5 proposals: Score = 2
- 6-25 proposals: Score = 3
- 26-50 proposals: Score = 4
- 50+ proposals: Score = 5

Number of Comments on Proposals:

- 0 comments: Score = 1
- 1-25 comments: Score = 2
- 26-100 comments: Score = 3
- 101-500 comments: Score = 4
- 500+ comments: Score = 5

Wallet Metrics Score (1-5 for each metric)

Account Age:

- Less than 1 month: Score = 1
- 1-6 months: Score = 2
- 6-12 months: Score = 3
- 1-2 years: Score = 4
- 2+ years: Score = 5

Account Balance (in USD):

- $0-$50: Score = 1
- $51-$100: Score = 2
- $101-$500: Score = 3
- $501-$1000: Score = 4
- $1000+: Score = 5

Number of Trades:

- No trades: Score = 1
- 1-100 trades: Score = 2
- 101-500 trades: Score = 3
- 501-1000 trades: Score = 4
- 1000+ trades: Score = 5

Example Calculations:

Patrick:

Token Holdings Score: Patrick is holder number 30, so his score is 4 (falls in the 6-50 range).

DAO Activity Scores:

- Voted on 2 proposals: Score = 2 (falls in the 1-5 proposals range).
- Made 4 comments on proposals: Score = 2 (falls in the 1-25 comments range).

Wallet Metrics Scores:

- Account age: 2 months old = Score 2 (falls in the 1-6 months range).
- Account balance: $40 = Score 1 (falls in the $0-$50 range).
- Number of trades: 15 trades = Score 2 (falls in the 1-100 trades range).

DAO Activity Sub-score: (2 (for voting) + 2 (for comments)) / 2 = 2
Wallet Metrics Sub-score: (2 (for age) + 1 (for balance) + 2 (for trades)) / 3 = 5 / 3 ≈ 1.67

Voting Power for Patrick: 0.5 × 4 (Token Holding) + 0.25 × 2 (DAO Activity) + 0.25 × 1.67 (Wallet Metrics)
Voting Power for Patrick: 2 + 0.5 + 0.4175 = **2.9175**

Sam:

Token Holdings Score: Sam is holder number 2, so his score is 5 (falls in the Top 5 holders range).

DAO Activity Scores:

- Voted on 0 proposals: Score = 1 (falls in the 0 proposals range).
- Made 2 comments on proposals: Score = 2 (falls in the 1-25 comments range).

Wallet Metrics Scores:

- Account age: 3 months old = Score 2 (falls in the 1-6 months range).
- Account balance: $0 = Score 1 (falls in the $0-$50 range).
- Number of trades: 3 trades = Score 2 (falls in the 1-100 trades range).

DAO Activity Sub-score: (1 (for voting) + 2 (for comments)) / 2 = 1.5
Wallet Metrics Sub-score: (2 (for age) + 1 (for balance) + 2 (for trades)) / 3 = 5 / 3 ≈ 1.67

Voting Power for Sam: 0.5 × 5 (Token Holding) + 0.25 × 1.5 (DAO Activity) + 0.25 × 1.67 (Wallet Metrics)
Voting Power for Sam: 2.5 + 0.375 + 0.4175 = **3.2925**