Future Proofing Network Validator Pay

Overview

As the Telos ecosystem continues to grow and evolve, the amount paid to the different teams and validators will need to adjust with the price. Failure to allow for pay to scale with price, will create a lot of risk to 'overpaying' certain groups and creating ceilings on the Telos Price. Since there is finite supply of Telos, ensuring each token goes further is an important factor in ensuring long term network health.

Sustainable Pay Model

This proposal aims to introduce and implement a sustainable pay model that will adjust payment amounts dynamically based on the current TLOS token price.

The TLOS token median price is currently recorded by our on-chain TLOS price "delphioracle" contract. This contract records the current TLOS token price on the chain several times a minute published by multiple network validators. The contract takes this price data and builds a running price median which ensures the price is consistent and tamper resistant. Results of this contract can be viewed HERE.

The pay contract will pull the current median TLOS price and calculate the payment amount based on a logarithmic formula. This formula uses a "target payment" based on a target TLOS token price of $1usd. As the price deviates from this level, the formula slightly increases the pay USD equivalent when the price rises and slightly decreases the pay USD equivalent when the price falls. The intention with this model is to encourage and reward the payees to enhance the Telos network which contributes to a price increase. The proposed formula (calculated every 30 minutes) is:

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[# of TLOS paid] = (pay interval amount) times [{TLOS price} to the power of -0.516]
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Additionally, there is a maximum TLOS token cap which limits the number of tokens issued if the TLOS price drops below the target price. This is a "safety value" to prevent unsustainable inflation.

Network Validators Pay

Network Validators are the custodians of our network who process the transactions and "validate" them for accuracy. They are the core team members who keep our network stable, secure and fast. This is technical work and requires the network validators to maintain their servers, implement software updates, resolve issues, and manage multiple "non-production" copies to support developers and code testing.

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TEDP1 made a significant increase to the NV pay which, at the time, was needed to sustain viability. TEDP2 reversed this increase, bringing the pay back to amenable levels and also reduced the standby validators down to 21 (for a total of 21 active validators and 21 standby validators). Active validators are actively processing transactions and get "Full pay" paid out every 30 minutes of service. Standby validators are rotated into the active position approximately once a week (which exercises their ability to process transactions) and get "Half pay" paid out every 30 minutes. Becoming an Active validator requires obtaining enough community votes to be within the top 21 validators (This vote ranking is recalculated several times an hour). The current Network Validator ranking can be found here: HERE.

This proposal focuses on using the sustainable pay model to pull the current median TLOS price and calculate the payment amount based on a logarithmic formula. This formula targets a payment of $12k/usd at a TLOS token price of $1usd. As the price deviates from this level, the formula slightly increases the pay USD equivalent when the price rises and slightly decreases the pay USD equivalent when the price falls. The intention of this formula is to create a scalable and stable pay for Validators as the market conditions change. The proposed formula (calculated every 30 minutes) is:

Active Validators: [# of TLOS paid] = 6.95 times [{TLOS price} to the power of -0.516]
Standby Validators: [# of TLOS paid] = (6.95 times [{TLOS price} to the power of -0.516]) ÷ 2

Additionally, there is a maximum TLOS token cap of 28,000 tokens to prevent unsustainable inflation. This formula produces monthly payment amounts represented by this table:

TLOS Price (USD$)	Current Monthly Validator Pay (28,000 Telos)	Proposed Monthly Validator Pay	Proposed Monthly Validator Pay in USD	Proposed Monthly Backup Validator Pay in USD
$0.01	$280	28,000	$280	$140
$0.02	$560	28,000	$560	$280
$0.05	$1,400	28,000	$1,400	$700
$0.10	$2,800	28,000	$2,800	$1,400
$0.20	$5,600	28,000	$5,600	$2,800
$0.50	$14,000	17,183	$8,592	$4,296
$1.00	$28,000	12,000	$12,000	$6,000
$2.00	$56,000	8,380	$16,761	$8,380
$4.00	$112,000	5,853	$23,410	$11,705
$5.00	$140,000	5,214	$26,069	$13,034
$10.00	$280,000	3,641	$36,411	$18,205
$15.00	$420,000	2,951	$44,270	$22,135

$20.00	$560,000	2,543	$50,856	$25,428
$50.00	$1,400,000	1,582	$79,098	$39,549

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