

Okcash Long Term Sustainable Staking v2

Final improvements based on consensus and past chain / system performance.

V2 by Oktoshi

Abstract - The current Proof of Stake systems depend on a stable or short % changes in the yearly staking calculations , which results in short spans and/or unstable systems with no sustainability nor stability or adoption . Okcash V1 LTSS WP solved this problems . In this paper (V2) an upgrade and a series of improvements over the LTSS system are proposed to triumph over this issues even further.

I. INTRODUCTION

Technical Sustainability : In aims to improve the OK system security , sustainability and reliability, while at the same time respecting scarcity and the original PoS expected supply growth proposed in the V1 LTSS WP.

Okcash came up with a solution to empower the system and secure LTSS. Bitcoin has LTPoW lasting till the year 2140 , with this implementation OK LTSS (staking) will be lasting till the year 2148 , making it the best PoS partner for Bitcoin and Micro Transactions.

II. SUSTAINABLE HALVINGS

Following the Original schedule of expected distribution proposed on the V1 LTSS WP, and based on the past performance of the OK Network / Users / Staking for the first 5 years of Okcash , we have improved and refined the LTSS System by fixing the halving periods based on past performance and future expectation of the Staking Network Percentage in the system to match the original Proof of Stake expected growth.

Economics : 15 planned halvings will help stabilize and secure the network and appreciation as they kick in. This system proposes: 6 halvings with a 1 year period, 4 halvings with a 2 years period, and 5 halvings with a 10 years + period. This halvings have been fixed to a 33.33 % / 16.66 % and 10 % expectancy of staking network based on past 5 years performance of the OK chain. After the 15 th halving OK gets a fixated % (after year 2070*), this will normalize the OK network , help secure the chain growth and improve the distribution with the participants of the network , giving OK a constant and long term growth with organic appreciation.

III. IMPLEMENTATION AND PERCENTAGES

Last OK coins to be PoS mined expected between years 2148 - 2188 depending on the % of Network Staking.

Glossary:

LTSS - Long Term Sustainable Staking.

LTPoW - Long Term Proof of Work.

Clean readable OK Staking % Calc. Improvements table [2]

format table:

Halvings Year end Year # Stake % Coins created for that year .*

** 501,257 blocks per year average*

OK LTSS improvements

H Num Year Year # Stake % Coins created / year POS exp growth Created so far
Report Block number stake % done

PoW 2014 0 - - 36,297,000 End of PoW Start of PoS
PoS 2015 1 69 24,755,382.67 61,341,930 61,052,382.67 531,257 69% done
1 2016 2 20 8,834,949.09 73,610,316 69,887,331.76 1,022,514 20% done
2 2017 3 10 4,011,463.13 80,971,348 73,898,794.89 1,523,771 10% done
3 2018 4 5 663,813.04 85,019,915 74,562,607.93 2,025,028 5% done
4 2019 5 2.5 437,392.07 87,145,413 75,000,000.00 2,526,285 2.5 % done
5 2020 6 22 5,500,000.00 88,888,321 80,500,000.00 3,027,542 22 % done
6 2021 7 11 2,951,666.66 90,666,088 83,451,666.66 3,528,799 11 % done
7 2022 8 6.9 1,919,388.33 92,479,409 85,371,054.99
- 2023 9 6.9 1,963,534.26 94,328,997 87,334,589.25 4,531,313 6.9 % done
8 2024 10 3.9 1,135,349.66 95,272,287 88,469,938.91
- 2025 11 3.9 1,150,109.20 96,225,010 89,620,048.11 5,533,827 3.9 % done
9 2026 12 3.6 1,075,440.57 97,187,260 90,695,488.68
- 2027 13 3.6 1,088,345.86 98,159,133 91,783,834.54 6,536,341 3.6 % done
10 2028 14 3.3 1,009,622.17 98,649,929 92,793,456.71
- 2029 15 3.3 1,020,728.02 99,143,178 93,814,184.73 7,538,855 3.3 % done
11 2030 16 3 469,070.92 99,638,894 94,283,255.65
- 2031 17 3 471,416.27 100,137,089 94,754,671.92
2032 18 3 473,773.35 100,387,431 95,228,445.27
- 2033 19 3 476,142.22 100,638,400 95,704,587.49
- 2034 20 3 478,522.93 100,889,996 96,183,110.42
- 2035 21 3 480,915.55 101,142,221 96,664,025.97
2036 22 3 483,320.12 101,243,363 97,147,346.09
- 2037 23 3 485,736.73 101,344,607 97,633,082.82
- 2038 24 3 488,165.41 101,445,951 98,121,248.23
- 2039 25 3 490,606.24 101,547,397 98,611,854.47 12,551,425 3 % done
12 2040 26 2 197,223.71 101,598,171 98,809,078.18
-- 2041 27 2 197,618.16 101,648,970 99,006,696.34
-- 2042 28 2 198,013.39 101,699,794 99,204,709.73
-- 2043 29 2 198,409.42 101,750,644 99,403,119.15
2044 30 2 198,806.24 101,781,169 99,601,925.39
2045 31 2 199,203.85 101,811,704 99,801,129.24
2046 32 2 199,602.26 101,842,247 100,000,731.49
2047 33 2 200,001.46 101,872,800 100,200,732.96
2048 34 2 200,401.47 101,903,362 100,401,134.42
2049 35 2 200,802.27 101,933,933 100,601,936.69 17,563,995 2 % done
13 2050 36 1 100,601.94 101,964,513 100,702,538.63
2051 37 1 100,702.54 101,995,102 100,803,241.17
2052 38 1 100,803.24 102,025,701 100,904,044.41
2053 39 1 100,904.04 102,056,309 101,004,948.45
2054 40 1 101,004.95 102,086,926 101,105,953.40
2055 41 1 101,105.95 102,117,552 101,207,059.36
2056 42 1 101,207.06 102,148,187 101,308,266.41
2057 43 1 101,308.27 102,178,831 101,409,574.68
2058 44 1 101,409.57 102,209,485 101,510,984.26
2059 45 1 101,510.98 102,240,148 101,612,495.24 22,576,565 1 % done
14 2060 46 0.69 70,112.62 102,270,820 101,682,607.86
2061 47 0.69 70,161.00 102,301,501 101,752,768.86
2062 48 0.69 70,209.41 102,332,192 101,822,978.27
2063 49 0.69 70,257.86 102,362,891 101,893,236.13
2064 50 0.69 70,306.33 102,393,600 101,963,542.46
2065 51 0.69 70,354.84 102,424,318 102,033,897.30
2066 52 0.69 70,403.39 102,455,045 102,104,300.69
2067 53 0.69 70,451.97 102,485,782 102,174,752.66
2068 54 0.69 70,500.58 102,516,528 102,245,253.24
2069 55 0.69 70,549.22 102,547,283 102,315,802.46 27,589,135 0.69 % done
15 2070 56 0.33 33,764.21 102,578,047 102,349,566.68
2071 57 0.33 33,775.36 102,608,820 102,383,342.04
2072 58 0.33 33,786.50 102,639,603 102,417,128.54
2073 59 0.33 33,797.65 102,670,395 102,450,926.19
2074 60 0.33 33,808.81 102,701,196 102,484,735.00
2075 61 0.33 33,819.96 102,732,006 102,518,554.96
2076 62 0.33 33,831.12 102,762,826 102,552,386.08
2077 63 0.33 33,842.29 102,793,655 102,586,228.37
2078 64 0.33 33,853.46 102,824,493 102,620,081.83
2079 65 0.33 33,864.63 102,855,340 102,653,946.45
2080 66 0.33 33,875.80 102,886,197 102,687,822.26
2081 67 0.33 33,886.98 102,917,063 102,721,709.24

2082 68 0.33 33,898.16 102,947,938 102,755,607.40
2083 69 0.33 33,909.35 102,978,822 102,789,516.75
2084 70 0.33 33,920.54 103,009,716 102,823,437.29
2085 71 0.33 33,931.73 103,040,619 102,857,369.03
2086 72 0.33 33,942.93 103,071,531 102,891,311.96
2087 73 0.33 33,954.13 103,102,452 102,925,266.09
2088 74 0.33 33,965.34 103,133,383 102,959,231.43
2089 75 0.33 33,976.55 103,164,323 102,993,207.97
2090 76 0.33 33,987.76 103,195,272 103,027,195.73
2091 77 0.33 33,998.97 103,226,231 103,061,194.71
2092 78 0.33 34,010.19 103,257,199 103,095,204.90
2093 79 0.33 34,021.42 103,288,176 103,129,226.32
2094 80 0.33 34,032.64 103,319,162 103,163,258.96
2095 81 0.33 34,043.88 103,350,158 103,197,302.84
2096 82 0.33 34,055.11 103,381,163 103,231,357.95
2097 83 0.33 34,066.35 103,412,178 103,265,424.30
2098 84 0.33 34,077.59 103,443,201 103,299,501.89
2099 85 0.33 34,088.84 103,474,234 103,333,590.72
2100 86 0.33 34,100.08 103,505,276 103,367,690.81
2101 87 0.33 34,111.34 103,536,328 103,401,802.15
2102 88 0.33 34,122.59 103,567,389 103,435,924.74
2103 89 0.33 34,133.86 103,598,459 103,470,058.60
2104 90 0.33 34,145.12 103,629,539 103,504,203.72
2105 91 0.33 34,156.39 103,660,628 103,538,360.10
2106 92 0.33 34,167.66 103,691,726 103,572,527.76
2107 93 0.33 34,178.93 103,722,833 103,606,706.70
2108 94 0.33 34,190.21 103,753,950 103,640,896.91
2109 95 0.33 34,201.50 103,785,076 103,675,098.41
2110 96 0.33 34,212.78 103,816,212 103,709,311.19
2111 97 0.33 34,224.07 103,847,357 103,743,535.26
2112 98 0.33 34,235.37 103,878,511 103,777,770.63
2113 99 0.33 34,246.66 103,909,674 103,812,017.29
2114 100 0.33 34,257.97 103,940,847 103,846,275.26
2115 101 0.33 34,269.27 103,972,030 103,880,544.53
2116 102 0.33 34,280.58 104,003,221 103,914,825.11
2117 103 0.33 34,291.89 104,034,422 103,949,117.00
2118 104 0.33 34,303.21 104,065,633 103,983,420.21
2119 105 0.33 34,314.53 104,096,852 104,017,734.74
2120 106 0.33 34,325.85 104,128,081 104,052,060.59
2121 107 0.33 34,337.18 104,159,320 104,086,397.77
2122 108 0.33 34,348.51 104,190,567 104,120,746.28
2123 109 0.33 34,359.85 104,221,825 104,155,106.13
2124 110 0.33 34,371.19 104,253,091 104,189,477.31
2125 111 0.33 34,382.53 104,284,367 104,223,859.84
2126 112 0.33 34,393.87 104,315,652 104,258,253.71
2127 113 0.33 34,405.22 104,346,947 104,292,658.94
2128 114 0.33 34,416.58 104,378,251 104,327,075.51
2129 115 0.33 34,427.93 104,409,565 104,361,503.45
2130 116 0.33 34,439.30 104,440,888 104,395,942.75
2131 117 0.33 34,450.66 104,472,220 104,430,393.41
2132 118 0.33 34,462.03 104,503,562 104,464,855.44
2133 119 0.33 34,473.40 104,534,913 104,499,328.84
2134 120 0.33 34,484.78 104,566,273 104,533,813.62
2135 121 0.33 34,496.16 104,597,643 104,568,309.78
2136 122 0.33 34,507.54 104,629,022 104,602,817.32
2137 123 0.33 34,518.93 104,660,411 104,637,336.25
2138 124 0.33 34,530.32 104,691,809 104,671,866.57
2139 125 0.33 34,541.72 104,723,217 104,706,408.28
2140 126 0.33 34,553.11 104,754,634 104,740,961.40
2141 127 0.33 34,564.52 104,786,060 104,775,525.92
2142 128 0.33 34,575.92 104,817,496 104,810,101.84
2143 129 0.33 34,587.33 104,848,941 104,844,689.17
2144 130 0.33 34,598.75 104,880,396 104,879,287.92
2145 131 0.33 34,610.17 104,911,860 104,913,898.09
2146 132 0.33 34,621.59 104,943,333 104,948,519.67
2147 133 0.33 34,633.01 104,974,816 104,983,152.68
2148 134 0.33 16,847.32 105,000,000 105,000,000.00

III. SUMMARY

The proposed changes are intended to improve on the adoption , efficiency , security , stability and sustainability in the Okcash Proof of Stake system [1].

REFERENCES

- [1] Okcash pos protocol: <https://github.com/okcashpro/okcash-whitepaper/blob/master/POS/okcash-pos-protocol-ltss-whitepaper.pdf>
- [2] LTSS V2 improvements table: <https://i.imgur.com/2XxJL6q.png>