

Assure DeFi[®]

THE VERIFICATION **GOLD STANDARD**



Security Assessment

Coincreate



Date: 01/11/2024

Audit Status: PASS

Audit Edition: Advanced



ASSURE DEFI[®]
THE VERIFICATION **GOLD STANDARD**

Risk Analysis

Vulnerability summary

Classification	Description
 High	High-level vulnerabilities can result in the loss of assets or manipulation of data.
 Medium	Medium-level vulnerabilities can be challenging to exploit, but they still have a considerable impact on smart contract execution, such as allowing public access to critical functions.
 Low	Low-level vulnerabilities are primarily associated with outdated or unused code snippets that generally do not significantly impact execution, sometimes they can be ignored.
 Informational	Informational vulnerabilities, code style violations, and informational statements do not affect smart contract execution and can typically be disregarded.

Executive Summary

According to the Assure assessment, the Customer's smart contract is **Secured**.



Scope

Target Code And Revision

For this audit, we performed research, investigation, and review of the Coincreate contracts followed by issue reporting, along with mitigation and remediation instructions outlined in this report.

Target Code And Revision

Project	Assure
Language	Solidity
Codebase	Token.sol [SHA256] eb652471f3bd170ea9a9f26f17265974573fe1a79fca3bc82143d316a38ee7d8
Audit Methodology	Static, Manual

Attacks made to the contract

In order to check for the security of the contract, we tested several attacks in order to make sure that the contract is secure and follows best practices.

Category	Item
Code review & Functional Review	<ul style="list-style-type: none">• Compiler warnings.• Race conditions and Reentrancy. Cross-function race conditions.• Possible delays in data delivery.• Oracle calls.• Front running.• Timestamp dependence.• Integer Overflow and Underflow.• DoS with Revert.• DoS with block gas limit.• Methods execution permissions.• Economy model.• Private user data leaks.• Malicious Event log.• Scoping and Declarations.• Uninitialized storage pointers.• Arithmetic accuracy.• Design Logic.• Cross-function race conditions.• Safe Zeppelin module.• Fallback function security.• Overpowered functions / Owner privileges

AUDIT OVERVIEW



No high severity issues were found.



No medium severity issues were found.



No low severity issues were found.



1. Absence of Token Recovery Mechanism

Contract: SToken

Function: N/A

Issue: The contract lacks a function to recover tokens that have become stuck.

Recommendation: Implement a function to facilitate the recovery of stuck tokens.

Testing coverage

During the testing phase, custom use cases were written to cover all the logic of contracts. *Check “Annexes” to see the testing code.

Coincreate contract tests:

Test Stoken:

```
tests/test_stoken.py::test_constructor RUNNING
Transaction sent: 0x7a0a88149071e5c8f101be4d5101a234e6c4273bb95451f769a27201eb787bdf
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 0
WETH9.constructor confirmed Block: 1 Gas used: 476546 (3.97%)
WETH9 deployed at: 0x3194cBDC3dbcd3E11a07892e7bA5c3394048Cc87

Transaction sent: 0x71b24ca2e2230cccle22cf0a2f483eedf4f702e2a7e4654904dd88f0ef6632f7
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 1
UniswapV2Factory.constructor confirmed Block: 2 Gas used: 2412742 (20.11%)
UniswapV2Factory deployed at: 0x602C71e4DAC47a042Ee7f46E0aee17F94A3bA0B6

Transaction sent: 0x9d9a4ee8e7ce168d9a0e7fbb2dad72ffe1c30a25dac6f7b11f308c78fb8f5c85
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 2
UniswapV2Router02.constructor confirmed Block: 3 Gas used: 3895430 (32.46%)
UniswapV2Router02 deployed at: 0xE7eD6747FaC5360f88a2EFC03E00d25789F69291

Transaction sent: 0x239d8547d824b567ad0ee8232def3e289de1fd55dbff02f57a6b37cdcdbb29a
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 3
SToken.constructor confirmed (Admin wallet cannot be zero address) Block: 4 Gas used: 325849 (2.72%)

Transaction sent: 0xd5e4c37e869e1f277a37a51e3a5da84a543dc31f55a87d76bdaf2122b6578868
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 4
SToken.constructor confirmed (Owner wallet cannot be zero address) Block: 5 Gas used: 325884 (2.72%)

Transaction sent: 0x6631fd88c4a20d963720cfe75e91a529b0a03a7abcd7ed0b9f02ea65ed7eab15
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 5
SToken.constructor confirmed (Cannot set LpFee more then 10%) Block: 6 Gas used: 326122 (2.72%)

Transaction sent: 0x919a8cc32b47c2b1b800b9bc23643f2f866f961fa05a0749d08d44b9e368ab3a
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 6
SToken.constructor confirmed (Cannot set adminFee more then 30%) Block: 7 Gas used: 326176 (2.72%)

Transaction sent: 0xe58d564167f97b91f0d73594d69b45d83b6a050cf031b84f72d9fec670c1a9ec
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 7
SToken.constructor confirmed (Invalid router address) Block: 8 Gas used: 325955 (2.72%)

Transaction sent: 0xf62b3e8c3ca2e780a80f3a90f26a61bacd976eaa4041b98f053c883598efe232
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 8
SToken.constructor confirmed (Max wallet amount must be at least 0.5% of total supply) Block: 9 Gas used: 469354 (3.91%)

Transaction sent: 0x662cf0029e738c02f57b01f8d922433fd2724625ed4cd18370cb7ca68aed5b8d
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 9
SToken.constructor confirmed (Max transaction amount cannot be less than 0.1% of total supply) Block: 10 Gas used: 674246 (5.62%)

Transaction sent: 0xa576189a915758a413e5dad80d4e67f2d71a568b7e63dbe9ba261d0d14876d6f
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 10
SToken.constructor confirmed Block: 11 Gas used: 5164459 (43.04%)
SToken deployed at: 0xb6286fAFd0451320ad6A8143089b216C2152c025

tests/test_stoken.py::test_constructor PASSED
tests/test_stoken.py::test_set_token_uri RUNNING
Transaction sent: 0x9fc4a8815b291347dbe179de4330615a219af5acfd1d45404b0dd1440f5f7c9
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 11
WETH9.constructor confirmed Block: 12 Gas used: 476546 (3.97%)
WETH9 deployed at: 0x7a3d735ee6873f17Dbdcab1d51B604928dc10d92

Transaction sent: 0x8124c5619b6f9fa605fa305e140e29146a035d5396f412763e6357c6e8d88738
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 12
UniswapV2Factory.constructor confirmed Block: 13 Gas used: 2412742 (20.11%)
UniswapV2Factory deployed at: 0x2c15A315610Bfa5248E4CbCbd693320e9D8E03Cc

Transaction sent: 0x0ea5c266829dbc655e223f08e51faf19dff3b1802c1f34f7694946dd9b298fed
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 13
UniswapV2Router02.constructor confirmed Block: 14 Gas used: 3895430 (32.46%)
UniswapV2Router02 deployed at: 0xe692Cf21B12e0B2717C4bF647F9768Fa58861c8b

Transaction sent: 0x41212ac60f7b863c6ad8f356b5304e9cae429d882c6230a90cfbf33a5298e805
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 14
SToken.constructor confirmed Block: 15 Gas used: 5164471 (43.04%)
SToken deployed at: 0xe65A7a341978d59d40d30FC23F5014FACB4f575A

Transaction sent: 0x0d18adaf66717f79e755dce2ed516a7346236656da7d062051df4779c2b007b5
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 0
SToken.setTokenURI confirmed (Ownable: caller is not the owner) Block: 16 Gas used: 23154 (0.19%)

Transaction sent: 0x5edbb07f62f4319ea362f7acbb2eb7081d2683405a89820696960ae0b118d481b
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 0
SToken.setTokenURI confirmed Block: 17 Gas used: 31960 (0.27%)

tests/test_stoken.py::test_set_token_uri PASSED
```

```
tests/test_stoken.py::test_set_max_wallet_amount RUNNING
Transaction sent: 0xc5755e977944976429d8727dbe817dd98774e3adc48c45c67575d87b6968ffdb
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 15
WETH9.constructor confirmed Block: 18 Gas used: 476546 (3.97%)
WETH9 deployed at: 0x30375B532345B01cB8c2AD12541b09E9Aa53A93d

Transaction sent: 0xebaa4895cc690f7fdb690dd0b205eb5825b50ad5ac3bb95f5fb2c1bd4627a40
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 16
UniswapV2Factory.constructor confirmed Block: 19 Gas used: 2412742 (20.11%)
UniswapV2Factory deployed at: 0x26f15335BB1C6a4C0B660eDd694a0555A9F1cce3

Transaction sent: 0x7404b86ec0bd8dac914b1739c5dc9266152cf9e3d020c092bb95cbb5fc6842d
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 17
UniswapV2Router02.constructor confirmed Block: 20 Gas used: 3895430 (32.46%)
UniswapV2Router02 deployed at: 0xFbD588c72B438fad4Cf7cD879c8F730Faa213Da0

Transaction sent: 0x9a3df49c60fd9d168d62a1c77aa1d1f77d4c7e173360c00a2ff9255967375799
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 18
SToken.constructor confirmed Block: 21 Gas used: 5164471 (43.04%)
SToken deployed at: 0xed00238F9A0F7b4d93842033cdF56cCB32C781c2

Transaction sent: 0xb14f615be580b3fcfcf27191e5b60b3756200bd48493f453ecac461f4a39fe32
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 1
SToken.setAdminFeeThreshold confirmed (Ownable: caller is not the owner) Block: 22 Gas used: 22524 (0.19%)

Transaction sent: 0x4510577025ad04dbde505942e2edecaf99eae60cb408fc80d66a1e3c0cc77414
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 1
SToken.setAdminFeeThreshold confirmed Block: 23 Gas used: 28458 (0.24%)

tests/test_stoken.py::test_set_max_wallet_amount PASSED
tests/test_stoken.py::test_set_liq_fee_percent RUNNING
Transaction sent: 0xdf806ea27ff15e2708d421710bd99b8d5034fc56227e3351e0872645703ea84d
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 19
WETH9.constructor confirmed Block: 24 Gas used: 476546 (3.97%)
WETH9 deployed at: 0xDae02e4fE488952cFB8c95177154D188647a0146

Transaction sent: 0x0bd3fe0c7659a65ad788529667259a23fd43c2a842dc00db63d6c43f96252d82
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 20
UniswapV2Factory.constructor confirmed Block: 25 Gas used: 2412742 (20.11%)
UniswapV2Factory deployed at: 0xdCF93F11ef216cEC9C07fd31dD801c9b2b39Afb4

Transaction sent: 0x1b512ccf161f232ef4fcc485aa984b7b426d2c214a2142d87038222cfc02c339
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 21
UniswapV2Router02.constructor confirmed Block: 26 Gas used: 3895430 (32.46%)
UniswapV2Router02 deployed at: 0xBcb61491F1859f53438918F1A5aFCA542Af9D397

Transaction sent: 0x74412773567058608b59ae3d0e498bde94c0a7f1959bd76c726c868c0a958b1b
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 22
SToken.constructor confirmed Block: 27 Gas used: 5164461 (43.04%)
SToken deployed at: 0xD22363efee93190f82b52FCD62B7Dbcb920eF658

Transaction sent: 0xda49f30a0661c68caf24b42983a5034eccea0935aefe20f5a71b6f718bdb2673
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 2
SToken.setLiquidityFeePercent confirmed (Ownable: caller is not the owner) Block: 28 Gas used: 22518 (0.19%)

Transaction sent: 0xc9fb2414ddaeece06b64ae129aa2cd9bdcaae5e41f2f2af7c7415bde74ffc74a
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 2
SToken.setLiquidityFeePercent confirmed (Cannot exceed the max liquidity fee) Block: 29 Gas used: 23336 (0.19%)

Transaction sent: 0xc31a92187198b696ed6f96e33e0f960e16ca66ad4a90aee4517f8ef174ccf81e
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 3
SToken.setLiquidityFeePercent confirmed Block: 30 Gas used: 29278 (0.24%)

tests/test_stoken.py::test_set_liq_fee_percent PASSED
```



```
tests/test_stoken.py::test_set_admin_fee_perc RUNNING
Transaction sent: 0x1b88d91ba8f38da23b15507cc80c1606529cffc4a452cbce8478c4d16154e088
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 23
WETH9.constructor confirmed Block: 31 Gas used: 476546 (3.97%)
WETH9 deployed at: 0x4D1B781ce59B8C184F63B99D39d6719A522f46B5

Transaction sent: 0x373103f49cd89fc6cd78a5053f9707c9748c89ec2cdf07445293264534122f25
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 24
UniswapV2Factory.constructor confirmed Block: 32 Gas used: 2412742 (20.11%)
UniswapV2Factory deployed at: 0xf9C8Cf55f2E520B08d869df7bc76aa3d3ddDF913

Transaction sent: 0xf859024ebb798283d3cf60177f87fee1d23955d1caac4b1956c58a3e9fbadb4
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 25
UniswapV2Router02.constructor confirmed Block: 33 Gas used: 3895430 (32.46%)
UniswapV2Router02 deployed at: 0x654f70d8442EA18904FA1AD79114f7250F7E9336

Transaction sent: 0x6c00f5e85b5c4ffff4ac5f15cbaf23448b5dbe8115ad5f07943d48f1655c60ca
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 26
SToken.constructor confirmed Block: 34 Gas used: 5164471 (43.04%)
SToken deployed at: 0xADEd61D42dE86f9058386D1D0d739d20C7eAfc43

Transaction sent: 0xa2de71980ea90f9eba57d2d541145fbade2f09d529180504a5cdc402de99e245
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 3
SToken.setAdminFeePercent confirmed (Ownable: caller is not the owner) Block: 35 Gas used: 22517 (0.19%)

Transaction sent: 0x102fb29f85fa840427211173053ccb6c00b91016ce3368785ca2417234f89e02
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 4
SToken.setAdminFeePercent confirmed (Cannot exceed the max admin fee) Block: 36 Gas used: 23307 (0.19%)

Transaction sent: 0x41ce9179ef322da1f68666a5f7e71a4dcfd2cb64f9a4708c4bfa19be9332f78f
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 5
SToken.setAdminFeePercent confirmed Block: 37 Gas used: 29277 (0.24%)

tests/test_stoken.py::test_set_admin_fee_perc PASSED
tests/test_stoken.py::test_set_admin_wallet RUNNING
Transaction sent: 0x12d426d499c1cb064869b9e21d2201d8b4470190f974d78c0e63eb9988c103d0
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 27
WETH9.constructor confirmed Block: 38 Gas used: 476546 (3.97%)
WETH9 deployed at: 0x832698Daec363C9A7aB036C224Af5B21280b3AC6

Transaction sent: 0xc7c3a0ca13a7f459362165b4edda7dbe6698fc432693bf401f71f756f6ce1b73
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 28
UniswapV2Factory.constructor confirmed Block: 39 Gas used: 2412742 (20.11%)
UniswapV2Factory deployed at: 0xA95916C3D979400C7443961330b3092510a229Ba

Transaction sent: 0x07d9bca25a1b930a920008bc145f8af024dc2d884997838b1c7ac95963c24034
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 29
UniswapV2Router02.constructor confirmed Block: 40 Gas used: 3895430 (32.46%)
UniswapV2Router02 deployed at: 0x42E8D004c84E6B5Bad559D3b5CE7947AADb9E0bc

Transaction sent: 0xa9aca3396360c6589be17abc2276978680c6a9a73671845000d0e5910cebe30e
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 30
SToken.constructor confirmed Block: 41 Gas used: 5164471 (43.04%)
SToken deployed at: 0xF06D5f5BfFFCB6a52c84cfebc03AD35637728E73

Transaction sent: 0xab60b65c07e6704435e6dd9dc6c806c1f67284e8e6112da66dad6a5bdbdad3c
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 4
SToken.setAdminWallet confirmed (Ownable: caller is not the owner) Block: 42 Gas used: 22730 (0.19%)

Transaction sent: 0x74c0d6c75e68eaal5ec203e2539a277b79e42e857c547afba079ef270631b5c6
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 6
SToken.setAdminWallet confirmed (Admin wallet cannot be zero address) Block: 43 Gas used: 22529 (0.19%)

Transaction sent: 0xc7126c8b1ac89602a17b11c051220253668bb7d6ca5518d469d9fd4e03260497
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 7
SToken.setAdminWallet confirmed Block: 44 Gas used: 45359 (0.38%)

tests/test_stoken.py::test_set_admin_wallet PASSED
```

```
tests/test_stoken.py::test_set_max_tx_amount RUNNING
Transaction sent: 0xe550034e7e53d0f7152b1e2175d8d9f1269e6faec81bf18c9bbd5817cb4f31c5
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 31
WETH9.constructor confirmed Block: 45 Gas used: 476546 (3.97%)
WETH9 deployed at: 0x82c83b7f88aef2eD99d4869D547b6ED28e69C8df

Transaction sent: 0x60591ee9fc1eb789686a22ba7b508909c62089c52f9544bacalbe69624846043
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 32
UniswapV2Factory.constructor confirmed Block: 46 Gas used: 2412742 (20.11%)
UniswapV2Factory deployed at: 0x724Ca58E1e6e648FB1E15d7Eec0fe1E5f581c7bd

Transaction sent: 0x0af54c615d1df698056543ad3686ce070ab0697283f260f4081ae5cea90a21fd
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 33
UniswapV2Router02.constructor confirmed Block: 47 Gas used: 3895430 (32.46%)
UniswapV2Router02 deployed at: 0x34b97ffa01dc0DC959c5f1176273D0de3be914C1

Transaction sent: 0x797407ecf5ed28f75adf084ae9c9b005e7b779c3560362079b04b1dbb3bed630
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 34
SToken.constructor confirmed Block: 48 Gas used: 5164471 (43.04%)
SToken deployed at: 0xc830Ad2FDfCC2f368fE5Dec93b1Dc72ecABb3691

Transaction sent: 0xc7ebc60c1f2d192b8c7ce2a46afbcff020062b47665e0f90e5beaa9aa289dd03
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 5
SToken.setMaxTxAmount confirmed (Ownable: caller is not the owner) Block: 49 Gas used: 22588 (0.19%)

Transaction sent: 0x192d3f8732a15f9abb2cea43748f1ad9030f9360a220ff8463f07b8485ba0900
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 8
SToken.setMaxTxAmount confirmed (Max transaction amount cannot be less than 0.1% of total supply) Block: 50 Gas used: 23443 (0.20%)

Transaction sent: 0xb9894a289ac8bc6d8926df294c18e47533a10339d9c8583b4183814fcb61d06a
Gas price: 0.0 gwei Gas limit: 12000000 Nonce: 9
SToken.setMaxTxAmount confirmed Block: 51 Gas used: 29401 (0.25%)

tests/test_stoken.py::test_set_max_tx_amount PASSED
```

tests/test_stoken.py::test_transfer **RUNNING**

Transaction sent: **0x20d7f320691c1e2a0f8f357222e0bb5940800e5324d23879aeb21114ddc361f2**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **35**

WETH9.constructor confirmed Block: **52** Gas used: **476546** (**3.97%**)

WETH9 deployed at: **0x8c8eCccb89650c3E796e803CB009BF9b898CB359**

Transaction sent: **0xc63d7ae6c9c45f2ddb32e2baa496ab4710692122bcc621234f180ab4378e1703**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **36**

UniswapV2Factory.constructor confirmed Block: **53** Gas used: **2412742** (**20.11%**)

UniswapV2Factory deployed at: **0x741e3E1f81041c62C2A97d0b6E567AcaB09A6232**

Transaction sent: **0x532fd5df760155058a9ab2b6335d31685bbfda7284b3d803af726f99d80185a6**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **37**

UniswapV2Router02.constructor confirmed Block: **54** Gas used: **3895430** (**32.46%**)

UniswapV2Router02 deployed at: **0x480FccF53589c1F185B35db88bB315a0bBF9a3e0**

Transaction sent: **0x3d02847140e72f04a625fc99d2c7ea4fe3aeae9d414b2e1e566f20974bdfa899**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **38**

SToken.constructor confirmed Block: **55** Gas used: **5164471** (**43.04%**)

SToken deployed at: **0xFE0F4Cf81B5c0a6Fd65a610FD9488F33aE9095cB**

Transaction sent: **0x574830d9a666a8b715df1705b14c41011faa214f3e7c4bc42b7c4f8455aaed5c**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **0**

SToken.transfer confirmed (**ERC20: transfer from the zero address**) Block: **56** Gas used: **22179** (**0.18%**)

Transaction sent: **0xa66bead1f444e4ae6685cfa8650b30010b50965d30a24488b38a80e007941e2d**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **6**

SToken.transfer confirmed (**ERC20: transfer to the zero address**) Block: **57** Gas used: **21974** (**0.18%**)

Transaction sent: **0x4f8ff02a1000f34082f93508d1e8830325fc8f0701d77c038173b78ca99a83aa**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **7**

SToken.transfer confirmed (**Transfer amount must be greater than zero**) Block: **58** Gas used: **22153** (**0.18%**)

Transaction sent: **0xe0d5b14bacbba6a527c0a75e537d086d2aea48a374f0f85c8a2e4b6caebe7312**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **8**

SToken.transfer confirmed (**Insufficient balance**) Block: **59** Gas used: **25750** (**0.21%**)

Transaction sent: **0x8b1e56e99488bef4d1b972693708ce526371f84c7b7d420b716e5716666754dd**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **9**

SToken.transfer confirmed (**Max wallet amount exceeded**) Block: **60** Gas used: **24840** (**0.21%**)

Transaction sent: **0x1541293cdfedf1a6e64f441bdd44367aa6bf066149eca1d8b3d062ee56f6e29e**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **10**

SToken.transfer confirmed Block: **61** Gas used: **77780** (**0.65%**)

Transaction sent: **0x57542fe2a4d38cb43269ce6e87f615e77c4ddfdad7bd947b6ef09ec4b08e5e73**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **10**

SToken.transfer confirmed Block: **62** Gas used: **79575** (**0.66%**)

Transaction sent: **0x341a3e2dcf3f6b48285c103cf5f1466bc32fc822ec08adf48a1b149973a080d9**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **11**

SToken.transfer confirmed Block: **63** Gas used: **112665** (**0.94%**)

Transaction sent: **0xb40758008ac28c2037ca0fela8dd8d5a5ed8c4d128b355836382770ece96ba2c**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **1**

SToken.transfer confirmed Block: **64** Gas used: **51808** (**0.43%**)

Transaction sent: **0x20fe8c2c9f8383e547ce5981f7b728ab844d4953fd3bc12062fbb90acdb5e5ec**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **39**

SToken.constructor confirmed Block: **65** Gas used: **5149473** (**42.91%**)

SToken deployed at: **0x4e3E7dC9D84dA7BE8f017f4C36153A61341736d4**

Transaction sent: **0x6fe352dfaacf0a73b3600823f1fc9c8c27ea018e47c695518d7c71f86920e178**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **11**

SToken.transfer confirmed Block: **66** Gas used: **77780** (**0.65%**)

Transaction sent: **0xc64c32f3789e08af67f26403e7d0fe59c93628583a15f7dc0688722b6983b239**

Gas price: **0.0** gwei Gas limit: **12000000** Nonce: **12**

SToken.transfer confirmed Block: **67** Gas used: **112637** (**0.94%**)

tests/test_stoken.py::test_transfer **PASSED**

Annexes

Testing code:

Test Stoken:

```
from brownie import (

    reverts,

)

from scripts.helpful_scripts import (

    ZERO_ADDRESS,

    DAY_TIMESTAMP,

    increase_timestamp,

    get_account,

)

from scripts.deploy import (

    deploy_weth,

    deploy_factory,

    deploy_router,

    deploy_liquidity,

    deploy_erc,

    deploy_nft,

    deploy_stake_nft,

    deploy_stoken

)

def test_constructor(only_local):

    # Arrange
```



```
owner = get_account(0)

admin_wallet = get_account(8)


weth = deploy_weth(owner)

factory = deploy_factory(owner, owner)

router = deploy_router(owner, factory.address, weth.address)


with reverts("Admin wallet cannot be zero address"):

    deploy_stoken(owner, 1000e18, 10, 10, 10e18, 5e18, 10e18, router.address,

                  ZERO_ADDRESS, admin_wallet, False, 10e18)

with reverts("Owner wallet cannot be zero address"):

    deploy_stoken(owner, 1000e18, 10, 10, 10e18, 5e18, 10e18, router.address,

                  admin_wallet, ZERO_ADDRESS, False, 10e18)

with reverts("Cannot set LpFee more then 10%"):

    deploy_stoken(owner, 1000e18, 20, 10, 10e18, 5e18, 10e18, router.address,

                  admin_wallet, admin_wallet, False, 10e18)

with reverts("Cannot set adminFee more then 30%"):

    deploy_stoken(owner, 1000e18, 10, 40, 10e18, 5e18, 10e18, router.address,

                  admin_wallet, admin_wallet, False, 10e18)

with reverts("Invalid router address"):

    deploy_stoken(owner, 1000e18, 10, 10, 10e18, 5e18, 10e18, ZERO_ADDRESS,

                  admin_wallet, admin_wallet, False, 10e18)

with reverts("Max wallet amount must be at least 0.5% of total supply"):

    deploy_stoken(owner, 1000e18, 10, 10, 10e18, 0, 10e18, router.address,

                  admin_wallet, admin_wallet, False, 10e18)

with reverts("Max transaction amount cannot be less than 0.1% of total supply"):

    deploy_stoken(owner, 1000e18, 10, 10, 0, 500e18, 10e18, router.address,

                  admin_wallet, admin_wallet, False, 10e18)
```

```
deploy_stoken(owner, 1000e18, 10, 10, 100e18, 500e18, 10e18, router.address,  
              admin_wallet, admin_wallet, False, 10e18)
```

```
def test_set_token_uri(only_local):
```

```
    # Arrange
```

```
    owner = get_account(0)
```

```
    other = get_account(1)
```

```
    admin_wallet = get_account(8)
```

```
    weth = deploy_weth(owner)
```

```
    factory = deploy_factory(owner, owner)
```

```
    router = deploy_router(owner, factory.address, weth.address)
```

```
    stoken = deploy_stoken(owner, 1000e18, 10, 10, 100e18, 500e18, 10e18, router.address,  
                          admin_wallet, admin_wallet, False, 10e18)
```

```
    with reverts("Ownable: caller is not the owner"):
```

```
        stoken.setTokenURI("some_uri", {"from": other})
```

```
    assert stoken.tokenURI() == "some_uri"
```

```
    stoken.setTokenURI("new_token_uri", {"from": admin_wallet})
```

```
    assert stoken.tokenURI() == "new_token_uri"
```

```
def test_set_max_wallet_amount(only_local):
```

```
    # Arrange
```

```
    owner = get_account(0)
```

```
    other = get_account(1)
```

```
    admin_wallet = get_account(8)
```

```

weth = deploy_weth(owner)

factory = deploy_factory(owner, owner)

router = deploy_router(owner, factory.address, weth.address)

token = deploy_token(owner, 1000e18, 10, 10, 100e18, 500e18, 10e18, router.address,
                    admin_wallet, admin_wallet, False, 10e18)

with reverts("Ownable: caller is not the owner"):
    token.setMaxWalletAmount(501e18, {"from": other})

with reverts("Max wallet amount must be at least 0.5% of total supply"):
    token.setMaxWalletAmount(1e18, {"from": admin_wallet})

assert token._maxWalletAmount() == 500e18

token.setMaxWalletAmount(501e18, {"from": admin_wallet})

assert token._maxWalletAmount() == 501e18

```

```

def test_set_max_wallet_amount(only_local):

```

```

    # Arrange

```

```

    owner = get_account(0)

```

```

    other = get_account(1)

```

```

    admin_wallet = get_account(8)

```

```

    weth = deploy_weth(owner)

```

```

    factory = deploy_factory(owner, owner)

```

```

    router = deploy_router(owner, factory.address, weth.address)

```

```

    token = deploy_token(owner, 1000e18, 10, 10, 100e18, 500e18, 10e18, router.address,
                        admin_wallet, admin_wallet, False, 10e18)

```

```

    with reverts("Ownable: caller is not the owner"):

```

```

        token.setAdminFeeThreshold(20e18, {"from": other})

    assert token.adminFeeThreshold() == 10e18

    token.setAdminFeeThreshold(20e18, {"from": admin_wallet})

    assert token.adminFeeThreshold() == 20e18

def test_set_liq_fee_percent(only_local):

    # Arrange

    owner = get_account(0)

    other = get_account(1)

    extra = get_account(2)

    admin_wallet = get_account(8)

    weth = deploy_weth(owner)

    factory = deploy_factory(owner, owner)

    router = deploy_router(owner, factory.address, weth.address)

    token = deploy_token(owner, 1000e18, 10, 10, 100e18, 500e18, 10e18, router.address,
                          admin_wallet, admin_wallet, False, 10e18)

    with reverts("Ownable: caller is not the owner"):

        token.setLiquidityFeePercent(5, {"from": other})

    with reverts("Cannot exceed the max liquidity fee"):

        token.setLiquidityFeePercent(15, {"from": admin_wallet})

    assert token._liquidityFee() == 10

    token.setLiquidityFeePercent(5, {"from": admin_wallet})

    assert token._liquidityFee() == 5

def test_set_admin_fee_perc(only_local):

    # Arrange

```



```
owner = get_account(0)

other = get_account(1)

extra = get_account(2)

admin_wallet = get_account(8)


weth = deploy_weth(owner)

factory = deploy_factory(owner, owner)

router = deploy_router(owner, factory.address, weth.address)

token = deploy_token(owner, 1000e18, 10, 10, 100e18, 500e18, 10e18, router.address,
                    admin_wallet, admin_wallet, False, 10e18)
```

```
with reverts("Ownable: caller is not the owner"):
    token.setAdminFeePercent(5, {"from": other})

with reverts("Cannot exceed the max admin fee"):
    token.setAdminFeePercent(15, {"from": admin_wallet})

assert token._adminFee() == 10

token.setAdminFeePercent(5, {"from": admin_wallet})

assert token._adminFee() == 5
```

```
def test_set_admin_wallet(only_local):
```

```
    # Arrange
```

```
    owner = get_account(0)

    other = get_account(1)

    extra = get_account(2)

    admin_wallet = get_account(8)
```

```
    weth = deploy_weth(owner)
```

```
    factory = deploy_factory(owner, owner)
```

```

router = deploy_router(owner, factory.address, weth.address)

token = deploy_token(owner, 1000e18, 10, 10, 100e18, 500e18, 10e18, router.address,
                    admin_wallet, admin_wallet, False, 10e18)

with reverts("Ownable: caller is not the owner"):
    token.setAdminWallet(extra, {"from": other})

with reverts("Admin wallet cannot be zero address"):
    token.setAdminWallet(ZERO_ADDRESS, {"from": admin_wallet})

assert token._adminWallet() == admin_wallet

token.setAdminWallet(extra, {"from": admin_wallet})

assert token._adminWallet() == extra

```

```

def test_set_max_tx_amount(only_local):

```

```

    # Arrange

```

```

    owner = get_account(0)

```

```

    other = get_account(1)

```

```

    extra = get_account(2)

```

```

    admin_wallet = get_account(8)

```

```

    weth = deploy_weth(owner)

```

```

    factory = deploy_factory(owner, owner)

```

```

    router = deploy_router(owner, factory.address, weth.address)

```

```

    token = deploy_token(owner, 1000e18, 10, 10, 100e18, 500e18, 10e18, router.address,
                    admin_wallet, admin_wallet, False, 10e18)

```

```

    with reverts("Ownable: caller is not the owner"):

```

```

        token.setMaxTxAmount(50e18, {"from": other})

```

```

    with reverts("Max transaction amount cannot be less than 0.1% of total supply"):

```

```

        token.setMaxTxAmount(0.5e18, {"from": admin_wallet})

    assert token._maxTxAmount() == 100e18

    token.setMaxTxAmount(50e18, {"from": admin_wallet})

    assert token._maxTxAmount() == 50e18

def test_set_max_tx_amount(only_local):

    # Arrange

    owner = get_account(0)

    other = get_account(1)

    extra = get_account(2)

    admin_wallet = get_account(8)

    weth = deploy_weth(owner)

    factory = deploy_factory(owner, owner)

    router = deploy_router(owner, factory.address, weth.address)

    token = deploy_token(owner, 1000e18, 10, 10, 100e18, 500e18, 10e18, router.address,
                          admin_wallet, admin_wallet, False, 10e18)

    with reverts("Ownable: caller is not the owner"):

        token.setMaxTxAmount(50e18, {"from": other})

    with reverts("Max transaction amount cannot be less than 0.1% of total supply"):

        token.setMaxTxAmount(0.5e18, {"from": admin_wallet})

    assert token._maxTxAmount() == 100e18

    token.setMaxTxAmount(50e18, {"from": admin_wallet})

    assert token._maxTxAmount() == 50e18

def test_transfer(only_local):

    # Arrange

```

```
owner = get_account(0)

other = get_account(1)

extra = get_account(2)

admin_wallet = get_account(8)


weth = deploy_weth(owner)

factory = deploy_factory(owner, owner)

router = deploy_router(owner, factory.address, weth.address)

token = deploy_token(owner, 1000e18, 10, 10, 100e18, 500e18, 10e18, router.address,
                    admin_wallet, admin_wallet, False, 10e18)


pair = token.uniswapV2Pair()


with reverts("ERC20: transfer from the zero address"):
    token.transfer(other, 1e18, {"from": ZERO_ADDRESS})

with reverts("ERC20: transfer to the zero address"):
    token.transfer(ZERO_ADDRESS, 1e18, {"from": other})

with reverts("Transfer amount must be greater than zero"):
    token.transfer(extra, 0, {"from": other})

with reverts("Insufficient balance"):
    token.transfer(extra, 1e18, {"from": other})

with reverts("Max wallet amount exceeded"):
    token.transfer(extra, 600e18, {"from": other})


tx = token.transfer(other, 5e18, {"from": admin_wallet})

assert tx.events['Transfer'][0]['from'] == admin_wallet

assert tx.events['Transfer'][0]['to'] == other

assert tx.events['Transfer'][0]['value'] == 5e18
```



```

tx = token.transfer(extra, 2e18, {"from": other})

assert tx.events['Transfer'][0]['from'] == other

assert tx.events['Transfer'][0]['to'] == extra

assert tx.events['Transfer'][0]['value'] == 2e18

# 10% lp fee + 10% adm fee

tx = token.transfer(pair, 1e18, {"from": other})

assert tx.events['Transfer'][0]['from'] == other

assert tx.events['Transfer'][0]['to'] == pair

assert tx.events['Transfer'][0]['value'] == 0.8e18

tx = token.transfer(other, 0.8e18, {"from": pair})

assert tx.events['Transfer'][0]['from'] == pair

assert tx.events['Transfer'][0]['to'] == other

assert tx.events['Transfer'][0]['value'] == 0.64e18

token = deploy_token(owner, 1000e18, 10, 10, 100e18, 500e18, 10e18, router.address,
                    admin_wallet, admin_wallet, True, 10e18)

pair = token.uniswapV2Pair()

tx = token.transfer(other, 5e18, {"from": admin_wallet})

assert tx.events['Transfer'][0]['from'] == admin_wallet

assert tx.events['Transfer'][0]['to'] == other

assert tx.events['Transfer'][0]['value'] == 5e18

# 10% lp fee + 10% adm fee

tx = token.transfer(extra, 2e18, {"from": other})

```

```
assert tx.events['Transfer'][0]['from'] == other  
  
assert tx.events['Transfer'][0]['to'] == extra  
  
assert tx.events['Transfer'][0]['value'] == 1.6e18
```

Technical Findings Summary

Findings

Vulnerability Level	Total	Pending	Not Apply	Acknowledged	Partially Fixed	Fixed
<div><div></div>High</div>						
<div><div></div>Medium</div>	0					
<div><div></div>Low</div>	0					
<div><div></div>Informational</div>	1					

Assessment Results

Score Results

Review	Score
Global Score	90/100
Assure KYC	https://assuredefi.com/projects/coincreate
Audit Score	85/100

The Following Score System Has been Added to this page to help understand the value of the audit, the maximum score is 100, however to attain that value the project must pass and provide all the data needed for the assessment. Our Passing Score has been changed to 84 Points for a higher standard, if a project does not attain 85% is an automatic failure. Read our notes and final assessment below. The Global Score is a combination of the evaluations obtained between having or not having KYC and the type of contract audited together with its manual audit.

Audit PASS

Following our comprehensive security audit of the token contract for the Coincreate project, we inform you that the contract has met the necessary security standards.

Disclaimer

Assure Defi has conducted an independent security assessment to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the reviewed code for the scope of this assessment. This report does not constitute agreement, acceptance, or advocating for the Project, and users relying on this report should not consider this as having any merit for financial adCoincreate in any shape, form, or nature. The contracts audited do not account for any economic developments that the Project in question may pursue, and the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude, and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are entirely free of exploits, bugs, vulnerabilities or deprecation of technologies.

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