Froggies Token

Smart Contract Audit Report

SYSFIXED

24 Oct 2022

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AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain
Froggies Token	FRGST	Binance Smart Chain

Addresses

Contract address	0x7029994f28fd39ff934a96b25591d250a2183f67
Contract deployer address	0x5dFA97D943ECd7Da3fF537dc6e728800C1ee3c76

Project Website

https://www.froggiestoken.com/

Codebase

https://bscscan.com/address/0x7029994f28fd39ff934a96b25591d250a2183f67#code

SUMMARY

FROGGIES INTO SPACE We are Froggies, a meme coin launched in November 2021. I Flew passed bulls and bears, hype and fud. We are still here and ready to provide the market with a Second Gen Memecoin. Our ultimate destination is Moon, and to ensure our landing zone in Space, we build on community, utility & usability. Froggies is an open community and drive a free market. Our team is devoted to delivering the best to our holders and securing a long-term projects.

Contract Summary

Documentation Quality

Froggies Token provides a very good documentation with standard of solidity base code.

- The technical description is provided clearly and structured and also dont have any high risk issue.

Code Quality

The Overall quality of the basecode is standard.

- Standard solidity basecode and rules are already followed by Froggies Token with the discovery of several low issues.

Test Coverage

Test coverage of the project is 100% (Through Codebase)

Audit Findings Summary

- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 28, 42, 57, 58, 71, 83, 98, 112, 126, 140, 156, 179, 202, 228, 553, 554, 555, 555, 574, 575, 577, 578, 580, 581, 655, 946, 997, 1060, 1452, 1455 and 1455.
- SWC-110 SWC-123 | It is recommended to use of revert(), assert(), and require() in Solidity, and the new REVERT opcode in the EVM on lines 657, 658, 661, 662, 1032, 1033, 1453, 1454 and 1454.

CONCLUSION

We have audited the Froggies Token project released on October 2022 to discover issues and identify potential security vulnerabilities in Froggies Token Project. This process is used to find technical issues and security loopholes which might be found in the smart contract.

The security audit report provides satisfactory results with low-risk issues.

The issues found in the Froggies Token smart contract code do not pose a considerable risk. The writing of the contract is close to the standard of writing contracts in general. The low-risk issues found are some arithmetic operation issues and out-of-bounds array access which the index access expression can cause an exception in case of the use of an invalid array index value.

AUDIT RESULT

Article	Category	Description	Result
Default Visibility	SWC-100 SWC-108	Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously.	PASS
Integer Overflow and Underflow	SWC-101	If unchecked math is used, all math operations should be safe from overflows and underflows.	ISSUE FOUND
Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.	PASS
Floating Pragma	SWC-103	Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly.	PASS
Unchecked Call Return Value	SWC-104	The return value of a message call should be checked.	PASS
Unprotected Ether Withdrawal	SWC-105	Due to missing or insufficient access controls, malicious parties can withdraw from the contract.	PASS
SELFDESTRUCT Instruction	SWC-106	The contract should not be self-destructible while it has funds belonging to users.	PASS
Reentrancy	SWC-107	Check effect interaction pattern should be followed if the code performs recursive call.	PASS
Uninitialized Storage Pointer	SWC-109	Uninitialized local storage variables can point to unexpected storage locations in the contract.	PASS
Assert Violation	SWC-110 SWC-123	Properly functioning code should never reach a failing assert statement.	ISSUE FOUND
Deprecated Solidity Functions	SWC-111	Deprecated built-in functions should never be used.	PASS
Delegate call to Untrusted Callee	SWC-112	Delegatecalls should only be allowed to trusted addresses.	PASS

DoS (Denial of Service)	SWC-113 SWC-128	Execution of the code should never be blocked by a specific contract state unless required.	PASS
Race Conditions	SWC-114	Race Conditions and Transactions Order Dependency should not be possible.	PASS
Authorization through tx.origin	SWC-115	tx.origin should not be used for authorization.	PASS
Block values as a proxy for time	SWC-116	Block numbers should not be used for time calculations.	PASS
Signature Unique ID	SWC-117 SWC-121 SWC-122	Signed messages should always have a unique id. A transaction hash should not be used as a unique id.	PASS
Incorrect Constructor Name	SWC-118	Constructors are special functions that are called only once during the contract creation.	PASS
Shadowing State Variable	SWC-119	State variables should not be shadowed.	PASS
Weak Sources of Randomness	SWC-120	Random values should never be generated from Chain Attributes or be predictable.	PASS
Write to Arbitrary Storage Location	SWC-124	The contract is responsible for ensuring that only authorized user or contract accounts may write to sensitive storage locations.	PASS
Incorrect Inheritance Order	SWC-125	When inheriting multiple contracts, especially if they have identical functions, a developer should carefully specify inheritance in the correct order. The rule of thumb is to inherit contracts from more /general/ to more /specific/.	PASS
Insufficient Gas Griefing	SWC-126	Insufficient gas griefing attacks can be performed on contracts which accept data and use it in a sub-call on another contract.	PASS
Arbitrary Jump Function	SWC-127	As Solidity doesnt support pointer arithmetics, it is impossible to change such variable to an arbitrary value.	PASS

Typographical Error	SWC-129	A typographical error can occur for example when the intent of a defined operation is to sum a number to a variable.	PASS
Override control character	SWC-130	Malicious actors can use the Right-To-Left-Override unicode character to force RTL text rendering and confuse users as to the real intent of a contract.	PASS
Unused variables	SWC-131 SWC-135	Unused variables are allowed in Solidity and they do not pose a direct security issue.	PASS
Unexpected Ether balance	SWC-132	Contracts can behave erroneously when they strictly assume a specific Ether balance.	PASS
Hash Collisions Variable	SWC-133	Using abi.encodePacked() with multiple variable length arguments can, in certain situations, lead to a hash collision.	PASS
Hardcoded gas amount	SWC-134	The transfer() and send() functions forward a fixed amount of 2300 gas.	PASS
Unencrypted Private Data	SWC-136	It is a common misconception that private type variables cannot be read.	PASS

SMART CONTRACT ANALYSIS

Started	Sunday Oct 23 2022 13:02:04 GMT+0000 (Coordinated Universal Time)
Finished	Monday Oct 24 2022 17:48:47 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	Token.sol

Detected Issues

ID	Title	Severity	Status
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "%" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "%" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "%" DISCOVERED	low	acknowledged

SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "%" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "++" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged

SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "++" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
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SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 28

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
27   unchecked {
28   uint256 c = a + b;
29   if (c < a) return (false, 0);
30   return (true, c);
31   }
32
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 42

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
41   if (b > a) return (false, 0);
42   return (true, a - b);
43   }
44   }
45
46
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 57

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
56   if (a == 0) return (true, 0);
57   uint256 c = a * b;
58   if (c / a != b) return (false, 0);
59   return (true, c);
60   }
61
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 58

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
57   uint256 c = a * b;
58   if (c / a != b) return (false, 0);
59   return (true, c);
60   }
61   }
62
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 71

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
70   if (b == 0) return (false, 0);
71   return (true, a / b);
72   }
73   }
74
75
```

SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 83

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
82   if (b == 0) return (false, 0);
83   return (true, a % b);
84   }
85   }
86
87
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 98

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
97   function add(uint256 a, uint256 b) internal pure returns (uint256) {
98   return a + b;
99   }
100
101   /**
102
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 112

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
111   function sub(uint256 a, uint256 b) internal pure returns (uint256) {
112   return a - b;
113   }
114
115   /**
116
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 126

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
125   function mul(uint256 a, uint256 b) internal pure returns (uint256) {
126   return a * b;
127   }
128
129   /**
130
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 140

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
139   function div(uint256 a, uint256 b) internal pure returns (uint256) {
140   return a / b;
141   }
142
143   /**
144
```

SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 156

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
155   function mod(uint256 a, uint256 b) internal pure returns (uint256) {
156   return a % b;
157   }
158
159   /**
160
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 179

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
178   require(b <= a, errorMessage);
179   return a - b;
180   }
181   }
182
183
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 202

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
201   require(b > 0, errorMessage);
202   return a / b;
203   }
204   }
205
206
```

SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 228

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
227   require(b > 0, errorMessage);
228   return a % b;
229   }
230   }
231   }
232
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 553

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
552   state._tTotal =
553   100_000_000_000_000_000 *
554   10**state.config.uints[Types.UintConfig.TOKEN_DECIMALS];
555   state._rTotal = (state.MAX - (state.MAX % state._tTotal));
556   state._rOwned[admin] = state._rTotal;
557
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 554

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
553   100_000_000_000_000_000 *
554   10**state.config.uints[Types.UintConfig.TOKEN_DECIMALS];
555   state._rTotal = (state.MAX - (state.MAX % state._tTotal));
556   state._rOwned[admin] = state._rTotal;
557
558
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 555

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
554   10**state.config.uints[Types.UintConfig.TOKEN_DECIMALS];
555   state._rTotal = (state.MAX - (state.MAX % state._tTotal));
556   state._rOwned[admin] = state._rTotal;
557
558   state.marketingPercent = 200;
559
```

SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 555

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
554   10**state.config.uints[Types.UintConfig.TOKEN_DECIMALS];
555   state._rTotal = (state.MAX - (state.MAX % state._tTotal));
556   state._rOwned[admin] = state._rTotal;
557
558   state.marketingPercent = 200;
559
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 574

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
573   state.MAXTxAmount =
574   1_000_000_000_000_000 *
575   10**state.config.uints[Types.UintConfig.TOKEN_DECIMALS];
576   state.numTokensSellToAddToLiquidity =
577   10_000_000_000_000 *
578
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 575

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
574   1_000_000_000_000_000 *
575   10**state.config.uints[Types.UintConfig.TOKEN_DECIMALS];
576   state.numTokensSellToAddToLiquidity =
577   10_000_000_000_000 *
578   10**state.config.uints[Types.UintConfig.TOKEN_DECIMALS];
579
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 577

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
576   state.numTokensSellToAddToLiquidity =
577   10_000_000_000_000 *
578   10**state.config.uints[Types.UintConfig.TOKEN_DECIMALS];
579   state.numTokensToSendCollectedFee =
580   20_000_000_000_000 *
581
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 578

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
577   10_000_000_000_000 *
578   10**state.config.uints[Types.UintConfig.TOKEN_DECIMALS];
579   state.numTokensToSendCollectedFee =
580   20_000_000_000_000 *
581   10**state.config.uints[Types.UintConfig.TOKEN_DECIMALS];
582
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 580

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
579   state.numTokensToSendCollectedFee =
580   20_000_000_000_000 *
581   10**state.config.uints[Types.UintConfig.TOKEN_DECIMALS];
582
583   state._isExcludedFromFee[admin] = true;
584
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 581

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
580   20_000_000_000_000 *
581   10**state.config.uints[Types.UintConfig.TOKEN_DECIMALS];
582
583   state._isExcludedFromFee[admin] = true;
584   state._isExcludedFromFee[address(this)] = true;
585
```

SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 655

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
654
655   for (uint256 i = 0; i < state._excludedFromReward.length; i++) {
656   if (
657   state._rOwned[state._excludedFromReward[i]] > rSupply ||
658   state._tOwned[state._excludedFromReward[i]] > tSupply
659
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 946

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
945   {
946   return _amount.mul(state._taxToDeduct).div(10**4);
947   }
948
949   function _getRValues(
950
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 997

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
996   uint256 shibbaFee = OneFull.mul(state.shibbaPercent).div(1e2);
997   uint256 totalFeeToSwapForBNB = marketingFee + shibbaFee;
998   _transferInternal(
999   state,
1000   sender,
1001
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1060

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
1059   state.collectedFee.mul(100).div(
1060   state.shibbaPercent + state.marketingPercent
1061   )
1062   );
1063   uint256 marketingFee = OneFull.mul(state.marketingPercent).div(1e2);
1064
```

SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 1452

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
1451   uint256 excludedLength = state._excludedFromReward.length;
1452   for (uint256 i = 0; i < excludedLength; i++) {
1453   if (state._excludedFromReward[i] == _account) {
1454   state._excludedFromReward[i] = state._excludedFromReward[
1455   excludedLength - 1
1456
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 1455

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
1454   state._excludedFromReward[i] = state._excludedFromReward[
1455   excludedLength - 1
1456   ];
1457
1458   state._tOwned[_account] = 0;
1459
```

SWC-101 | COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED

LINE 1455

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
1454   state._excludedFromReward[i] = state._excludedFromReward[
1455   excludedLength - 1
1456   ];
1457
1458   state._tOwned[_account] = 0;
1459
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 657

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
656   if (
657   state._rOwned[state._excludedFromReward[i]] > rSupply ||
658   state._tOwned[state._excludedFromReward[i]] > tSupply
659   ) return (state._rTotal, state._tTotal);
660
661
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 658

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
657   state._rOwned[state._excludedFromReward[i]] > rSupply ||
658   state._tOwned[state._excludedFromReward[i]] > tSupply
659   ) return (state._rTotal, state._tTotal);
660
661   rSupply = rSupply.sub(state._rOwned[state._excludedFromReward[i]]);
662
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 661

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
660
661   rSupply = rSupply.sub(state._rOwned[state._excludedFromReward[i]]);
662   tSupply = tSupply.sub(state._tOwned[state._excludedFromReward[i]]);
663   }
664
665
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 662

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
661   rSupply = rSupply.sub(state._rOwned[state._excludedFromReward[i]]);
662   tSupply = tSupply.sub(state._tOwned[state._excludedFromReward[i]]);
663   }
664
665   if (rSupply < state._rTotal.div(state._tTotal))
666
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1032

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
1031   address[] memory path = new address[](2);
1032   path[0] = address(this);
1033   path[1] = state.swapV2Router.WETH();
1034
1035   _approve(
1036
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1033

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
1032   path[0] = address(this);
1033   path[1] = state.swapV2Router.WETH();
1034
1035   _approve(
1036   state,
1037
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1453

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
1452   for (uint256 i = 0; i < excludedLength; i++) {
1453   if (state._excludedFromReward[i] == _account) {
1454   state._excludedFromReward[i] = state._excludedFromReward[
1455   excludedLength - 1
1456   ];
1457
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1454

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
1453   if (state._excludedFromReward[i] == _account) {
1454   state._excludedFromReward[i] = state._excludedFromReward[
1455   excludedLength - 1
1456   ];
1457
1458
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1454

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
1453   if (state._excludedFromReward[i] == _account) {
1454   state._excludedFromReward[i] = state._excludedFromReward[
1455   excludedLength - 1
1456   ];
1457
1458
```

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