Kuro Shiba

Smart Contract Audit Report

SYSFIXED

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AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain
Kuro Shiba	KURO	Harmony

Addresses

Contract address	0x3e018675c0ef63eb361b9ef4bfea3a3294c74c7b
Contract deployer address	0xD68B99856d08B463a6aaAbACC6377bf5aCB92233

Project Website

https://beta.kuroshiba.one/

Codebase

https://explorer.harmony.one/address/0x3e018675c0ef63eb361b9ef4bfea3a3294c74c7b?activeTab=7

SUMMARY

Kuro Shiba (KURO) is the cutest community token on the Harmony network, offering 5% automatic rewards for holders and exclusive NFT airdrops for liquidity providers!

▌Contract Summary

Documentation Quality

Kuro Shiba 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 Kuro Shiba with the discovery of several low issues.

Test Coverage

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

▌Audit Findings Summary

- SWC-100 SWC-108 | Explicitly define visibility for all state variables on lines 238.
- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 32, 34, 35, 35, 37, 39, 123, 269, 269, 271, 271, 381, 383, 410, 450, 463, 469 and 383.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 1.
- 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 382, 383, 383, 451, 451, 452 and 453.

CONCLUSION

We have audited the Kuro Shiba project released on june 2023 to discover issues and identify potential security vulnerabilities in Kuro Shiba 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 a satisfactory result with some low-risk issues.

The issues found in the Kuro Shiba 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, a floating pragma is set, a state variable visibility is not set, 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. It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code. It is best practice to set the visibility of state variables explicitly. The default visibility for "BURN_ADDRESS" is internal. Other possible visibility settings are public and private.

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.	ISSUE FOUND
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.	ISSUE FOUND
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	Friday Jun 11 2021 10:20:26 GMT+0000 (Coordinated Universal Time)
Finished	Saturday Jun 12 2021 03:28:50 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	NotSafeMoon.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	COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	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

SYSFIXED

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED
LINE 32

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

Source File
- NotSafeMoon.sol

Locations

```
31    library SafeMath {
32    function add(uint256 a, uint256 b) internal pure returns (uint256) {uint256 c = a +
b; require(c >= a, "SafeMath: addition overflow"); return c;}
33    function sub(uint256 a, uint256 b) internal pure returns (uint256) {return sub(a, b,
"SafeMath: subtraction overflow");}
34    function sub(uint256 a, uint256 b, string memory errorMessage) internal pure returns
(uint256) {require(b <= a, errorMessage);uint256 c = a - b;return c;}
35    function mul(uint256 a, uint256 b) internal pure returns (uint256) {if (a == 0)
{return 0;}uint256 c = a * b;require(c / a == b, "SafeMath: multiplication
overflow");return c;}
36
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED
LINE 34

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
33    function sub(uint256 a, uint256 b) internal pure returns (uint256) {return sub(a, b,
"SafeMath: subtraction overflow");}
34    function sub(uint256 a, uint256 b, string memory errorMessage) internal pure returns
(uint256) {require(b <= a, errorMessage);uint256 c = a - b;return c;}
35    function mul(uint256 a, uint256 b) internal pure returns (uint256) {if (a == 0)
{return 0;}uint256 c = a * b;require(c / a == b, "SafeMath: multiplication
overflow");return c;}
36    function div(uint256 a, uint256 b) internal pure returns (uint256) {return div(a, b,
"SafeMath: division by zero");}
37    function div(uint256 a, uint256 b, string memory errorMessage) internal pure returns
(uint256) {require(b > 0, errorMessage);uint256 c = a / b;return c;}
38
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED
LINE 35

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
34    function sub(uint256 a, uint256 b, string memory errorMessage) internal pure returns
(uint256) {require(b <= a, errorMessage);uint256 c = a - b;return c;}
35    function mul(uint256 a, uint256 b) internal pure returns (uint256) {if (a == 0)
{return 0;}uint256 c = a * b;require(c / a == b, "SafeMath: multiplication
overflow");return c;}
36    function div(uint256 a, uint256 b) internal pure returns (uint256) {return div(a, b,
"SafeMath: division by zero");}
37    function div(uint256 a, uint256 b, string memory errorMessage) internal pure returns
(uint256) {require(b > 0, errorMessage);uint256 c = a / b;return c;}
38    function mod(uint256 a, uint256 b) internal pure returns (uint256) {return mod(a, b,
"SafeMath: modulo by zero");}
39
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED
LINE 35

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
34    function sub(uint256 a, uint256 b, string memory errorMessage) internal pure returns
(uint256) {require(b <= a, errorMessage);uint256 c = a - b;return c;}
35    function mul(uint256 a, uint256 b) internal pure returns (uint256) {if (a == 0)
{return 0;}uint256 c = a * b;require(c / a == b, "SafeMath: multiplication
overflow");return c;}
36    function div(uint256 a, uint256 b) internal pure returns (uint256) {return div(a, b,
"SafeMath: division by zero");}
37    function div(uint256 a, uint256 b, string memory errorMessage) internal pure returns
(uint256) {require(b > 0, errorMessage);uint256 c = a / b;return c;}
38    function mod(uint256 a, uint256 b) internal pure returns (uint256) {return mod(a, b,
"SafeMath: modulo by zero");}
39
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED
LINE 37

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
36    function div(uint256 a, uint256 b) internal pure returns (uint256) {return div(a, b,
"SafeMath: division by zero");}
37    function div(uint256 a, uint256 b, string memory errorMessage) internal pure returns
(uint256) {require(b > 0, errorMessage);uint256 c = a / b;return c;}
38    function mod(uint256 a, uint256 b) internal pure returns (uint256) {return mod(a, b,
"SafeMath: modulo by zero");}
39    function mod(uint256 a, uint256 b, string memory errorMessage) internal pure returns
(uint256) {require(b != 0, errorMessage);return a % b;}
40    }
41
```

SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED
LINE 39

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
38    function mod(uint256 a, uint256 b) internal pure returns (uint256) {return mod(a, b,
"SafeMath: modulo by zero");}
39    function mod(uint256 a, uint256 b, string memory errorMessage) internal pure returns
(uint256) {require(b != 0, errorMessage);return a % b;}
40    }
41
42    abstract contract Context {
43
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED
LINE 123

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
122    _owner = address(0);
123    _lockTime = block.timestamp + time;
124    emit OwnershipTransferred(_owner, address(0));
125    }
126
127
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 269

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
268    _burnFee = burnFee_;
269    _tTotal = totalSupply_.mul(10**6).mul(10**uint256(decimals_));
270    _rTotal = MAX.sub(MAX.mod(_tTotal));
271    _maxTxAmount = maxTx_.mul(10**6).mul(10**uint256(decimals_));
272    _rOwned[_msgSender()] = _rTotal;
273
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED
LINE 269

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
268    _burnFee = burnFee_;
269    _tTotal = totalSupply_.mul(10**6).mul(10**uint256(decimals_));
270    _rTotal = MAX.sub(MAX.mod(_tTotal));
271    _maxTxAmount = maxTx_.mul(10**6).mul(10**uint256(decimals_));
272    _rOwned[_msgSender()] = _rTotal;
273
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED
LINE 271

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
270    _rTotal = MAX.sub(MAX.mod(_tTotal));
271    _maxTxAmount = maxTx_.mul(10**6).mul(10**uint256(decimals_));
272    _rOwned[_msgSender()] = _rTotal;
273    IUniswapV2Router02 _uniswapV2Router = IUniswapV2Router02(uniV2RouterAddress_);
274
275
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED
LINE 271

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
270    _rTotal = MAX.sub(MAX.mod(_tTotal));
271    _maxTxAmount = maxTx_.mul(10**6).mul(10**uint256(decimals_));
272    _rOwned[_msgSender()] = _rTotal;
273    IUniswapV2Router02 _uniswapV2Router = IUniswapV2Router02(uniV2RouterAddress_);
274
275
```

SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED
LINE 381

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
380    require(_isExcludedFromReward[account], "Account is already excluded");
381    for (uint256 i = 0; i < _excludedFromReward.length; i++) {
382    if (_excludedFromReward[i] == account) {
383    _excludedFromReward[i] = _excludedFromReward[_excludedFromReward.length - 1];
384    _tOwned[account] = 0;
385
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED
LINE 383

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

Source File
- NotSafeMoon.sol

Locations

```
382    if (_excludedFromReward[i] == account) {
383    _excludedFromReward[i] = _excludedFromReward[_excludedFromReward.length - 1];
384    _tOwned[account] = 0;
385    _isExcludedFromReward[account] = false;
386    _excludedFromReward.pop();
387
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED
LINE 410

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
409    _maxTxAmount = _tTotal.mul(maxTxPercent).div(
410    10**2
411    );
412    }
413
414
```

SYSFIXED

SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED
LINE 450

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
449    uint256 tSupply = _tTotal;
450    for (uint256 i = 0; i < _excludedFromReward.length; i++) {
451    if (_rOwned[_excludedFromReward[i]] > rSupply || _tOwned[_excludedFromReward[i]] >
tSupply) return (_rTotal, _tTotal);
452    rSupply = rSupply.sub(_rOwned[_excludedFromReward[i]]);
453    tSupply = tSupply.sub(_tOwned[_excludedFromReward[i]]);
454
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED
LINE 463

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
462    return _amount.mul(_rewardFee).div(
463    10**2
464    );
465    }
466
467
```

SYSFIXED

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED
LINE 469

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
468    return _amount.mul(_burnFee).div(
469    10**2
470    );
471    }
472
473
```

SWC-101 | COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED
LINE 383

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
382    if (_excludedFromReward[i] == account) {
383    _excludedFromReward[i] = _excludedFromReward[_excludedFromReward.length - 1];
384    _tOwned[account] = 0;
385    _isExcludedFromReward[account] = false;
386    _excludedFromReward.pop();
387
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 1

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- NotSafeMoon.sol

Locations

```
0
1   pragma solidity ^0.8.0;
2   // SPDX-License-Identifier: Unlicensed
3
4   interface IERC20 {
5
```

SYSFIXED

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 238

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "BURN_ADDRESS" is internal. Other possible visibility settings are public and private.

Source File

- NotSafeMoon.sol

Locations

```
237
238    address BURN_ADDRESS = 0x000000000000000000000000000000000000001;
239
240    uint256 private constant MAX = ~uint256(0);
241    uint256 private _tTotal;
242
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS
LINE 382

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
381    for (uint256 i = 0; i < _excludedFromReward.length; i++) {
382    if (_excludedFromReward[i] == account) {
383    _excludedFromReward[i] = _excludedFromReward[_excludedFromReward.length - 1];
384    _tOwned[account] = 0;
385    _isExcludedFromReward[account] = false;
386
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS
LINE 383

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
382    if (_excludedFromReward[i] == account) {
383    _excludedFromReward[i] = _excludedFromReward[_excludedFromReward.length - 1];
384    _tOwned[account] = 0;
385    _isExcludedFromReward[account] = false;
386    _excludedFromReward.pop();
387
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS
LINE 383

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
382    if (_excludedFromReward[i] == account) {
383    _excludedFromReward[i] = _excludedFromReward[_excludedFromReward.length - 1];
384    _tOwned[account] = 0;
385    _isExcludedFromReward[account] = false;
386    _excludedFromReward.pop();
387
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS
LINE 451

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
450    for (uint256 i = 0; i < _excludedFromReward.length; i++) {
451    if (_rOwned[_excludedFromReward[i]] > rSupply || _tOwned[_excludedFromReward[i]] >
tSupply) return (_rTotal, _tTotal);
452    rSupply = rSupply.sub(_rOwned[_excludedFromReward[i]]);
453    tSupply = tSupply.sub(_tOwned[_excludedFromReward[i]]);
454    }
455
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS
LINE 451

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
450   for (uint256 i = 0; i < _excludedFromReward.length; i++) {
451   if (_rOwned[_excludedFromReward[i]] > rSupply || _tOwned[_excludedFromReward[i]] >
tSupply) return (_rTotal, _tTotal);
452   rSupply = rSupply.sub(_rOwned[_excludedFromReward[i]]);
453   tSupply = tSupply.sub(_tOwned[_excludedFromReward[i]]);
454   }
455
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS
LINE 452

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
451    if (_rOwned[_excludedFromReward[i]] > rSupply || _tOwned[_excludedFromReward[i]] >
tSupply) return (_rTotal, _tTotal);
452    rSupply = rSupply.sub(_rOwned[_excludedFromReward[i]]);
453    tSupply = tSupply.sub(_tOwned[_excludedFromReward[i]]);
454    }
455    if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
456
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS
LINE 453

low SEVERITY

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

Source File

- NotSafeMoon.sol

Locations

```
452    rSupply = rSupply.sub(_rOwned[_excludedFromReward[i]]);
453    tSupply = tSupply.sub(_tOwned[_excludedFromReward[i]]);
454    }
455    if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
456    return (rSupply, tSupply);
457
```

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This is a limited report on our findings based on our analysis, in accordance with good industry practice as of the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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ABOUT US

Sysfixed is a blockchain security certification organization established in 2021 with the objective to provide smart contract security services and verify their correctness in blockchain-based protocols. Sysfixed automatically scans for security vulnerabilities in Ethereum and other EVM-based blockchain smart contracts. Sysfixed a comprehensive range of analysis techniques—including static analysis, dynamic analysis, and symbolic execution—can accurately detect security vulnerabilities to provide an in-depth analysis report. With a vibrant ecosystem of world-class integration partners that amplify developer productivity, Sysfixed can be utilized in all phases of your project's lifecycle. Our team of security experts is dedicated to the research and improvement of our tools and techniques used to fortify your code.