



Boost

# Smart Contract Audit Report

# TABLE OF CONTENTS

## **|** Audited Details

- Audited Project
- Blockchain
- Addresses
- Project Website
- Codebase

## **|** Summary

- Contract Summary
- Audit Findings Summary
- Vulnerabilities Summary

## **|** Conclusion

## **|** Audit Results

## **|** Smart Contract Analysis

- Detected Vulnerabilities

## **|** Disclaimer

## **|** About Us

# AUDITED DETAILS

## Audited Project

Project name	Token ticker	Blockchain
Boost	BOOST	Ethereum

## Addresses

Contract address	0x4e0fca55a6c3a94720ded91153a27f60e26b9aa8
Contract deployer address	0xEE72635914C510637c77B85232572d10f72b5A0E

## Project Website

<a href="https://boostco.in/">https://boostco.in/</a>
---

## Codebase

<a href="https://etherscan.io/address/0x4e0fca55a6c3a94720ded91153a27f60e26b9aa8#code">https://etherscan.io/address/0x4e0fca55a6c3a94720ded91153a27f60e26b9aa8#code</a>
---

# SUMMARY

"Boost is a new Digital Ecosystem for the modern world. Its mission is to disrupt traditional forms of financial tools which provide liquidity to the broader economy. We believe that the power of finance should be in the hands of the many, not the few, and that technology should be optimized in the best interest of human beings, to work for us and not the other way around. Today, large corporations earn billions of dollars each year by leveraging the value of our collective earnings, which they risk by investing in ventures large and small, for the benefit of the few, not the many. "

## | Contract Summary

### Documentation Quality

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

- The technical description is provided clearly and structured and also don't have any high risk issue.

### Code Quality

The Overall quality of the basecode is standard.

- Standard solidity basecode and rules are already followed by Boost 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 666.
- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 102, 134, 157, 158, 193, 229, 645, 645, 646, 646, 669, 669, 670, 670, 671, 671, 806, 808, 828, 830, 878, 1059, 808 and 830.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 6.
- 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 807, 808, 808, 829, 830, 830, 917, 918, 1060, 1060, 1061 and 1062.
- SWC-115 | tx.origin should not be used for authorization, use msg.sender instead on lines 872.

## CONCLUSION

We have audited the Boost project released on August 2021 to discover issues and identify potential security vulnerabilities in Boost 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 Boost 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, tx.origin as a part of authorization control 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.	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.	ISSUE FOUND
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 grieving 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	Monday Aug 09 2021 03:13:45 GMT+0000 (Coordinated Universal Time)
Finished	Tuesday Aug 10 2021 11:53:02 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	BoostToken.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

<b>SWC-101</b>	ARITHMETIC OPERATION "*" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	ARITHMETIC OPERATION "**" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	ARITHMETIC OPERATION "++" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	ARITHMETIC OPERATION "-" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	ARITHMETIC OPERATION "++" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	ARITHMETIC OPERATION "-" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	ARITHMETIC OPERATION "+" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	ARITHMETIC OPERATION "++" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-103</b>	A FLOATING PRAGMA IS SET.	<b>low</b>	acknowledged
<b>SWC-108</b>	STATE VARIABLE VISIBILITY IS NOT SET.	<b>low</b>	acknowledged
<b>SWC-115</b>	USE OF "TX.ORIGIN" AS A PART OF AUTHORIZATION CONTROL.	<b>low</b>	acknowledged



# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 102

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
101  function add(uint256 a, uint256 b) internal pure returns (uint256) {  
102      uint256 c = a + b;  
103      require(c >= a, "SafeMath: addition overflow");  
104  
105      return c;  
106  }
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 134

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
133   require(b <= a, errorMessage);  
134   uint256 c = a - b;  
135  
136   return c;  
137   }  
138
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 157

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
156
157  uint256 c = a * b;
158  require(c / a == b, "SafeMath: multiplication overflow");
159
160  return c;
161
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 158

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
157     uint256 c = a * b;  
158     require(c / a == b, "SafeMath: multiplication overflow");  
159  
160     return c;  
161 }  
162
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 193

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
192     require(b > 0, errorMessage);  
193     uint256 c = a / b;  
194     // assert(a == b * c + a % b); // There is no case in which this doesn't hold  
195  
196     return c;  
197
```



# SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 229

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
228     require(b != 0, errorMessage);
229     return a % b;
230 }
231 }
232
233
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 645

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
644  uint256 private constant MAX = ~uint256(0);  
645  uint256 private constant _tTotal = 10000000000 * 10**18;  
646  uint256 private _rTotal = (MAX - (MAX % _tTotal));  
647  uint256 private _tFeeTotal;  
648  
649
```

# SWC-101 | ARITHMETIC OPERATION "\*\*" DISCOVERED

LINE 645

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
644 uint256 private constant MAX = ~uint256(0);
645 uint256 private constant _tTotal = 10000000000 * 10**18;
646 uint256 private _rTotal = (MAX - (MAX % _tTotal));
647 uint256 private _tFeeTotal;
648
649
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 646

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
645  uint256 private constant _tTotal = 10000000000 * 10**18;
646  uint256 private _rTotal = (MAX - (MAX % _tTotal));
647  uint256 private _tFeeTotal;
648
649  string private constant _name = 'Boost';
650
```

# SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 646

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
645  uint256 private constant _tTotal = 10000000000 * 10**18;
646  uint256 private _rTotal = (MAX - (MAX % _tTotal));
647  uint256 private _tFeeTotal;
648
649  string private constant _name = 'Boost';
650
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 669

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
668
669  uint256 private _maxTxAmount = 5000000 * 10**18;
670  uint256 private constant _numOfTokensToExchangeForTeam = 5000 * 10**18;
671  uint256 private _maxWalletSize = 9500000 * 10**18;
672
673
```

# SWC-101 | ARITHMETIC OPERATION "\*\*" DISCOVERED

LINE 669

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
668
669  uint256 private _maxTxAmount = 5000000 * 10**18;
670  uint256 private constant _numOfTokensToExchangeForTeam = 5000 * 10**18;
671  uint256 private _maxWalletSize = 9500000 * 10**18;
672
673
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 670

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
669  uint256 private _maxTxAmount = 5000000 * 10**18;
670  uint256 private constant _numOfTokensToExchangeForTeam = 5000 * 10**18;
671  uint256 private _maxWalletSize = 9500000 * 10**18;
672
673  event botAddedToBlacklist(address account);
674
```



# SWC-101 | ARITHMETIC OPERATION "\*\*" DISCOVERED

LINE 670

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
669 uint256 private _maxTxAmount = 5000000 * 10**18;
670 uint256 private constant _numOfTokensToExchangeForTeam = 5000 * 10**18;
671 uint256 private _maxWalletSize = 9500000 * 10**18;
672
673 event botAddedToBlacklist(address account);
674
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 671

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
670  uint256 private constant _numOfTokensToExchangeForTeam = 5000 * 10**18;  
671  uint256 private _maxWalletSize = 9500000 * 10**18;  
672  
673  event botAddedToBlacklist(address account);  
674  event botRemovedFromBlacklist(address account);  
675
```

# SWC-101 | ARITHMETIC OPERATION "\*\*" DISCOVERED

LINE 671

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
670  uint256 private constant _numOfTokensToExchangeForTeam = 5000 * 10**18;  
671  uint256 private _maxWalletSize = 9500000 * 10**18;  
672  
673  event botAddedToBlacklist(address account);  
674  event botRemovedFromBlacklist(address account);  
675
```

# SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 806

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
805     require (_isBlackListedBot[account], 'Account is not blacklisted');
806     for (uint256 i = 0; i < _blackListedBots.length; i++) {
807         if (_blackListedBots[i] == account) {
808             _blackListedBots[i] = _blackListedBots[_blackListedBots.length - 1];
809             _isBlackListedBot[account] = false;
810         }
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 808

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
807     if (_blackListedBots[i] == account) {  
808         _blackListedBots[i] = _blackListedBots[_blackListedBots.length - 1];  
809         _isBlackListedBot[account] = false;  
810         _blackListedBots.pop();  
811         break;  
812     }
```

# SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 828

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
827   require(!_isExcluded[account], "Account is not excluded");
828   for (uint256 i = 0; i < _excluded.length; i++) {
829     if (_excluded[i] == account) {
830       _excluded[i] = _excluded[_excluded.length - 1];
831       _tOwned[account] = 0;
832     }
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 830

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
829     if (_excluded[i] == account) {  
830         _excluded[i] = _excluded[_excluded.length - 1];  
831         _tOwned[account] = 0;  
832         _isExcluded[account] = false;  
833         _excluded.pop();  
834     }
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 878

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
877     uint256 tokenBalanceRecipient = balanceOf(recipient);
878     require(tokenBalanceRecipient + amount <= _maxWalletSize, "Recipient exceeds max
wallet size.");
879 }
880 // is the token balance of this contract address over the min number of
881 // tokens that we need to initiate a swap?
882
```



# SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 1059

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
1058     uint256 tSupply = _tTotal;
1059     for (uint256 i = 0; i < _excluded.length; i++) {
1060         if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return
            (_rTotal, _tTotal);
1061         rSupply = rSupply.sub(_rOwned[_excluded[i]]);
1062         tSupply = tSupply.sub(_tOwned[_excluded[i]]);
1063     }
```

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

LINE 808

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
807   if (_blackListedBots[i] == account) {  
808       _blackListedBots[i] = _blackListedBots[_blackListedBots.length - 1];  
809       _isBlackListedBot[account] = false;  
810       _blackListedBots.pop();  
811       break;  
812   }
```

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

LINE 830

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
829     if (_excluded[i] == account) {  
830         _excluded[i] = _excluded[_excluded.length - 1];  
831         _tOwned[account] = 0;  
832         _isExcluded[account] = false;  
833         _excluded.pop();  
834     }
```

## SWC-103 | A FLOATING PRAGMA IS SET.

LINE 6

### low SEVERITY

The current pragma Solidity directive is `""^0.6.12""`. 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

- BoostToken.sol

### Locations

```
5 // SPDX-License-Identifier: Unlicensed
6 pragma solidity ^0.6.12;
7
8 abstract contract Context {
9     function _msgSender() internal view virtual returns (address payable) {
10
```

## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 666

### low SEVERITY

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

### Source File

- BoostToken.sol

### Locations

```
665
666  bool inSwap = false;
667  bool public swapEnabled = true;
668
669  uint256 private _maxTxAmount = 5000000 * 10**18;
670
```

# SWC-115 | USE OF "TX.ORIGIN" AS A PART OF AUTHORIZATION CONTROL.

LINE 872

## low SEVERITY

Using "tx.origin" as a security control can lead to authorization bypass vulnerabilities. Consider using "msg.sender" unless you really know what you are doing.

## Source File

- BoostToken.sol

## Locations

```
871  require(!_isBlackListedBot[msg.sender], "You are blacklisted");
872  require(!_isBlackListedBot[tx.origin], "You are blacklisted");
873  if(sender != owner() && recipient != owner()) {
874  require(amount <= _maxTxAmount, "Transfer amount exceeds the maxTxAmount.");
875  }
876
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 807

### low SEVERITY

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

### Source File

- BoostToken.sol

### Locations

```
806   for (uint256 i = 0; i < _blackListedBots.length; i++) {  
807     if (_blackListedBots[i] == account) {  
808       _blackListedBots[i] = _blackListedBots[_blackListedBots.length - 1];  
809       _isBlackListedBot[account] = false;  
810       _blackListedBots.pop();  
811     }
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 808

### low SEVERITY

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

### Source File

- BoostToken.sol

### Locations

```
807   if (_blackListedBots[i] == account) {  
808       _blackListedBots[i] = _blackListedBots[_blackListedBots.length - 1];  
809       _isBlackListedBot[account] = false;  
810       _blackListedBots.pop();  
811       break;  
812   }
```



## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 808

### low SEVERITY

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

### Source File

- BoostToken.sol

### Locations

```
807   if (_blackListedBots[i] == account) {  
808       _blackListedBots[i] = _blackListedBots[_blackListedBots.length - 1];  
809       _isBlackListedBot[account] = false;  
810       _blackListedBots.pop();  
811       break;  
812   }
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 829

### low SEVERITY

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

### Source File

- BoostToken.sol

### Locations

```
828   for (uint256 i = 0; i < _excluded.length; i++) {  
829     if (_excluded[i] == account) {  
830       _excluded[i] = _excluded[_excluded.length - 1];  
831       _tOwned[account] = 0;  
832       _isExcluded[account] = false;  
833     }
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 830

### low SEVERITY

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

### Source File

- BoostToken.sol

### Locations

```
829   if (_excluded[i] == account) {  
830     _excluded[i] = _excluded[_excluded.length - 1];  
831     _tOwned[account] = 0;  
832     _isExcluded[account] = false;  
833     _excluded.pop();  
834
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 830

### low SEVERITY

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

### Source File

- BoostToken.sol

### Locations

```
829   if (_excluded[i] == account) {  
830     _excluded[i] = _excluded[_excluded.length - 1];  
831     _tOwned[account] = 0;  
832     _isExcluded[account] = false;  
833     _excluded.pop();  
834
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 917

### low SEVERITY

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

### Source File

- BoostToken.sol

### Locations

```
916     address[] memory path = new address[](2);
917     path[0] = address(this);
918     path[1] = uniswapV2Router.WETH();
919
920     _approve(address(this), address(uniswapV2Router), tokenAmount);
921
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 918

### low SEVERITY

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

### Source File

- BoostToken.sol

### Locations

```
917     path[0] = address(this);  
918     path[1] = uniswapV2Router.WETH();  
919  
920     _approve(address(this), address(uniswapV2Router), tokenAmount);  
921  
922
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1060

### low SEVERITY

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

### Source File

- BoostToken.sol

### Locations

```
1059   for (uint256 i = 0; i < _excluded.length; i++) {  
1060     if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return  
      (_rTotal, _tTotal);  
1061     rSupply = rSupply.sub(_rOwned[_excluded[i]]);  
1062     tSupply = tSupply.sub(_tOwned[_excluded[i]]);  
1063   }  
1064
```

# SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1060

## low SEVERITY

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

## Source File

- BoostToken.sol

## Locations

```
1059   for (uint256 i = 0; i < _excluded.length; i++) {  
1060     if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return  
      (_rTotal, _tTotal);  
1061     rSupply = rSupply.sub(_rOwned[_excluded[i]]);  
1062     tSupply = tSupply.sub(_tOwned[_excluded[i]]);  
1063   }  
1064
```



## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1061

### low SEVERITY

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

### Source File

- BoostToken.sol

### Locations

```
1060  if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return
      (_rTotal, _tTotal);
1061  rSupply = rSupply.sub(_rOwned[_excluded[i]]);
1062  tSupply = tSupply.sub(_tOwned[_excluded[i]]);
1063  }
1064  if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
1065
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1062

### low SEVERITY

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

### Source File

- BoostToken.sol

### Locations

```
1061   rSupply = rSupply.sub(_rOwned[_excluded[i]]);
1062   tSupply = tSupply.sub(_tOwned[_excluded[i]]);
1063   }
1064   if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
1065   return (rSupply, tSupply);
1066
```

# DISCLAIMER

This report is subject to the terms and conditions (including without limitation, description of services, confidentiality, disclaimer and limitation of liability) set forth in the Services Agreement, or the scope of services, and terms and conditions provided to you ("Customer" or the "Company") in connection with the Agreement. This report provided in connection with the Services set forth in the Agreement shall be used by the Company only to the extent permitted under the terms and conditions set forth in the Agreement. This report may not be transmitted, disclosed, referred to, or relied upon by any person for any purposes, nor may copies be delivered to any other person other than the Company, without Sysfixed's prior written consent in each instance.

This report is not, nor should be considered, an "endorsement" or "disapproval" of any particular project or team. This report is not, nor should be considered, an indication of the economics or value of any "product" or "asset" created by any team or project that contracts Sysfixed to perform a security assessment. This report does not provide any warranty or guarantee regarding the absolute bug-free nature of the technology analyzed, nor do they provide any indication of the technologies proprietors, business, business model, or legal compliance.

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.

This report should not be used in any way to make decisions around investment or involvement with any particular project. This report in no way provides investment advice, nor should be leveraged as investment advice of any sort. This report represents an extensive assessing process intending to help our customers increase the quality of their code while reducing the high level of risk presented by cryptographic tokens and blockchain technology.

This report is provided for information purposes only and on a non-reliance basis and does not constitute investment advice. No one shall have any right to rely on the report or its contents, and Sysfixed and its affiliates (including holding companies, shareholders, subsidiaries, employees, directors, officers, and other representatives) (Sysfixed) owe no duty of care.

## 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.