



ITISH

AUDIT COMPANY

Audit Details



Audited project

0x5ef1a90AdB994FcFf6F2403546f2B3f5D20e6F3A



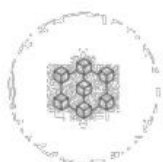
Deployer address

0x9cd90581829ef342ab0132cd279704358c681f60



Client contacts:

Unknown



Blockchain

Binance Smart Chain



Project website:

Not Provided By CALLISTO TOKEN Team



Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at 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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Background

Itish was commissioned by CALLISTO TOKEN to perform an audit of smart contracts:

<https://bscscan.com/address/0x5ef1a90adb994fcff6f2403546f2b3f5d20e6f3a>

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

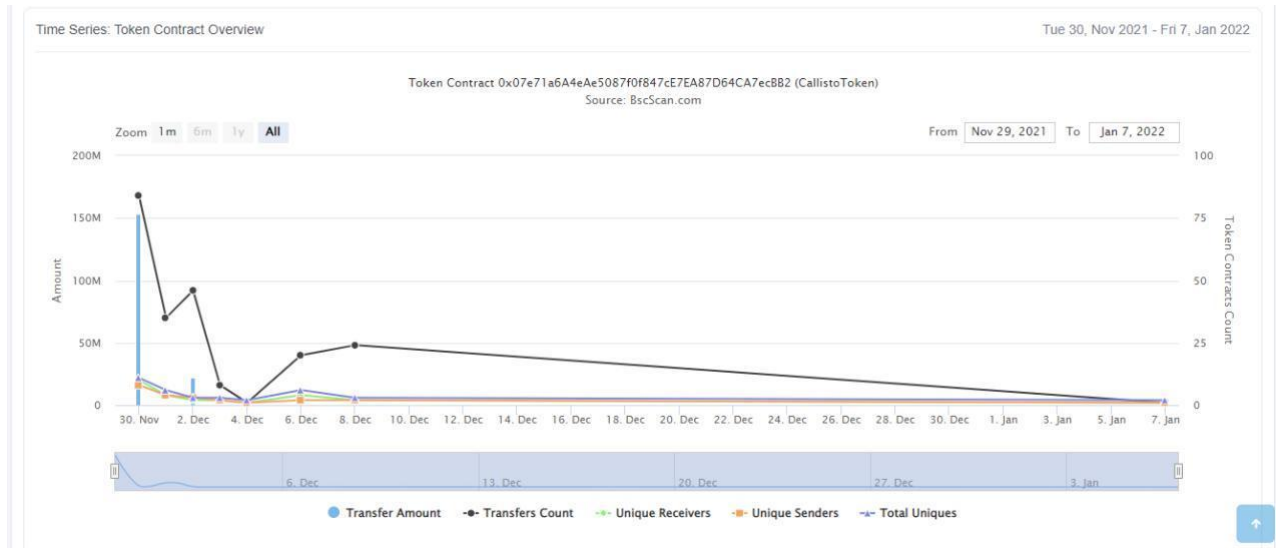
The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

Contracts Details

Token Contract Details For 20.02.2022

Contract name	Unknown
Contract address	0x5ef1a90AdB994FcFf6F2403546f2B3f5D20e6F3A
Token Creator	0x9cd90581829ef342ab0132cd279704358c681f60

Contract Interaction Detail



Contract Functions Details

+ [Int] IBEP20

- [Ext] balanceOf
- [Ext] totalSupply
- [Ext] decimals
- [Ext] symbol
- [Ext] name
- [Ext] getOwner
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

+ [Lib] SafeMath

- [Int] add
- [Int] sub
- [Int] sub
- [Int] mul
- [Int] div
- [Int] div
- [Int] mod

- [Int] mod

+ Context

- [Int] _msgSender
- [Int] _msgData

+ [Lib] Address

- [Int] isContract
- [Int] sendValue #
- [Int] functionCall #
- [Int] functionCall #
- [Int] functionCallWithValue #
- [Int] functionCallWithValue #
- [Prv] _functionCallWithValue #

+ Ownable (Context)

- [Int] <Constructor> #
- [Pub] owner
- [Pub] renounceOwnership #
 - modifiers: onlyOwner
- [Pub] transferOwnership #
 - modifiers: onlyOwner
- [Pub] geUnlockTime
- [Pub] lock #
 - modifiers: onlyOwner

- [Pub] unlock #
- CALLISTOToken (Context, IBEP20, Ownable)
- [Pub] <Constructor> #
- [Pub] name
- [Pub] symbol
- [Pub] decimCALLISTO
- [Pub] totCALLISTOsupply
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] allowance
- [Pub] approve #
- [Pub] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Pub] isExcludedFromReward
- [Pub] totalFees
- [Pub] deliver #
- [Pub] reflectionFromToken
- [Pub] tokenFromReflection
- [Pub] isminter
- [Pub] addminter
- [Pub] removeminter#
- [Pub] renounceminter
- [Pub] _addminter
- [Pub] _removeminter#
-
- [Pub] excludeFromReward #
 - modifiers: onlyOwner
- [Ext] includeInReward #
 - modifiers: onlyOwner
- [Prv] _transferBothExcluded #
- [Pub] excludeFromFee #
 - modifiers: onlyOwner
- [Pub] includeInFee #

(\$) = payable function

(#) = non-constant function

-

Issues Checking Status

Issue description	Checking status
1. Compiler errors.	Passed
2. Compiler Compatibilities	Failed
3. Possible delays in data delivery.	Passed
4. Oracle calls.	Moderate
5. Front running.	Passed
6. Timestamp dependence.	Passed
7. Integer Overflow and Underflow.	Passed
8. DoS with Revert.	Passed
9. DoS with block gas limit.	Moderate
10. Methods execution permissions.	Passed
.	
11. Economy model of the contract.	Passed
12. The Impact of The Exchange Rate On The Logic.	Severe
.	
13. Private user data leaks.	Passed
14. Malicious Event log.	Passed
.	
15. Scoping and Declarations.	Passed
16. Uninitialized storage pointers.	Passed
.	
17. Arithmetic accuracy.	Passed
18. Design Logic.	Moderate
.	

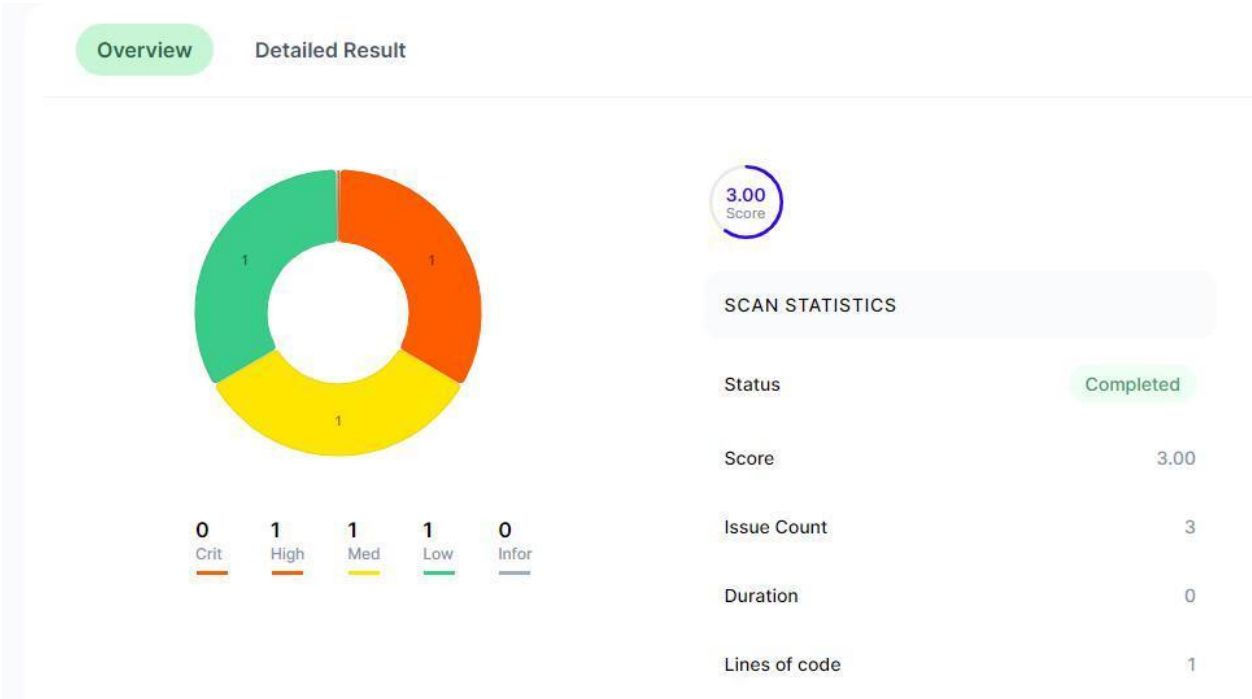
19. Cross-function race conditions.

Passed
- 20 Safe Open Zeppelin contracts implementation and . usage.

Failed
21. Fallback function security.

Passed

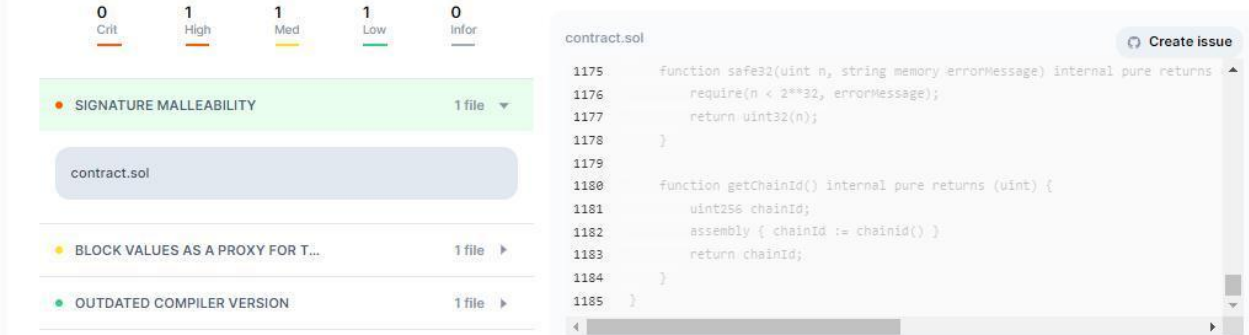
Security Issues



✓

High Severity Issues

One high severity issues found.



REMIEDIATION METHOD :

It is recommended to use [OpenZeppelin's ECDSA library](#) that has a wrapper around `ecrecover` that mitigates this issue. The data signer can be recovered using `ECDSA.recover`, and its address can be compared to verify the signature.

✓ Medium Severity Issues

One medium severity issues found.

The screenshot displays a security analysis interface. On the left, a sidebar shows a list of issues categorized by severity: 0 Crit, 1 High, 1 Med, 1 Low, and 0 Infor. The 'BLOCK VALUES AS A PROXY FOR TIME' issue is highlighted in green. Below the list, a file named 'contract.sol' is selected. On the right, the 'contract.sol' file is open, showing Solidity code. The issue details panel on the right provides a 'Vulnerability Description' and 'Remediation' for the 'BLOCK VALUES AS A PROXY FOR TIME' issue.

contract.sol

```
1175 function safe32(uint n, string memory errorMessage) internal pure returns
1176     require(n < 2**32, errorMessage);
1177     return uint32(n);
1178 }
1179
1180 function getChainId() internal pure returns (uint) {
1181     uint256 chainId;
1182     assembly { chainId := chainid() }
1183     return chainId;
1184 }
1185 }
```

BLOCK VALUES AS A PROXY FOR TIME

Contracts often need access to time values to perform certain types of functionality. Values such as `block.timestamp` and `block.number` can be used to determine the current time or the time delta. However, they are not recommended for most use cases.

For `block.number`, as Ethereum block times are generally around 14 seconds, the delta between blocks can be predicted. The block times, on the other hand, do not remain constant and are subject to change for a number of reasons, e.g., fork reorganizations and the difficulty bomb.

Due to variable block times, `block.number` should not be relied on for precise calculations of time.

REMIEDIATION METHOD :

Smart contracts should be written with the idea that block values are not precise, and their use can have unexpected results. Alternatively, oracles can be used.

Low Severity Issues

One Low severity issues found.

0
Crit

1
High

1
Med

1
Low

0
Infor

SIGNATURE MALLEABILITY1 file

BLOCK VALUES AS A PROXY FOR T...1 file

OUTDATED COMPILER VERSION1 file

contract.sol

contract.sol

Create issue

1175function safe32(uint n, string memory errorMessage) internal pure returns (uint32) {

1176require(n < 2**32, errorMessage);

1177return uint32(n);

1178}

1179}

1180function getChainId() internal pure returns (uint) {

1181uint256 chainId;

1182assembly { chainId := chainid() }

1183return chainId;

1184}

1185}

Vulnerability DescriptionRemediation

OUTDATED COMPILER VERSION

Using an outdated compiler version can be problematic especially if there are publicly disclosed bugs and issues that affect the current compiler version.

It should also be noted that the Solidity version 0.5.0 introduced some breaking changes.



REMEDIATION METHOD :

It is recommended to use a recent version of the Solidity compiler, preferably something above 0.8.4+ that patches most of the vulnerabilities introduced in older compiler versions.

Conclusion

Smart contracts contain High severity issues! Liquidity pair contract's security is not checked due to out of scope.

Liquidity locking details NOT provided by the team.

Itish note:

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment

attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.