



Smart Contract Security Audit Report

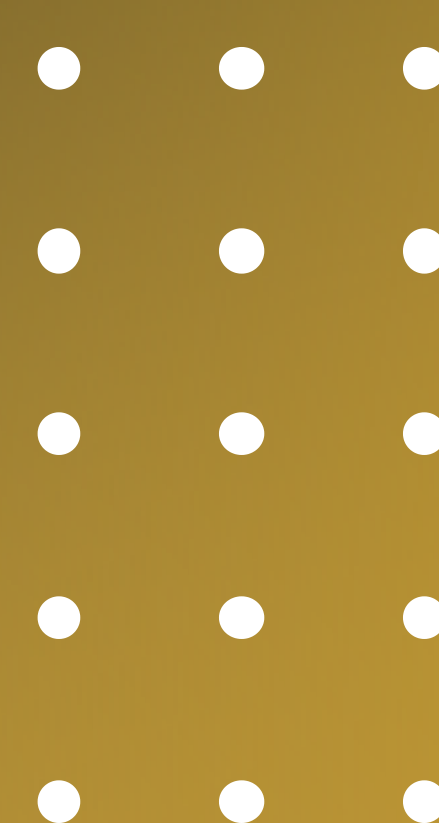
Nody

July 2022

Security Status



www.hacksafe.io



Audit Details



Audited project

Nody



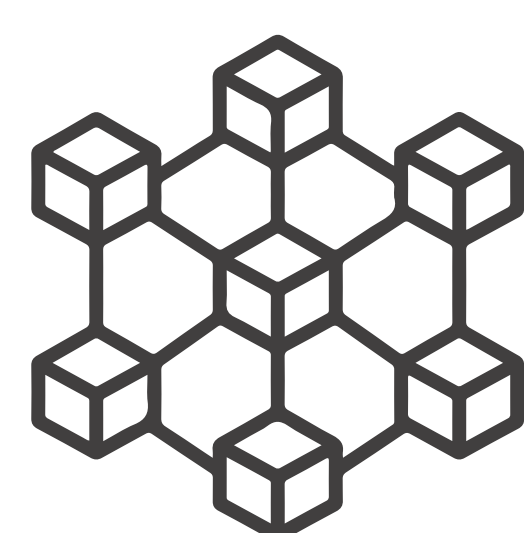
Deployer address

0xbA3e8569D406A6e549fA2607632a5205111Aff40



Client contacts

Nody team



Blockchain

Binance Smart Chain



Website

<https://nody.ai/>

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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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

Procedure

Step 1 - In-Depth Manual Review

Manual line-by-line code reviews to ensure the logic behind each function is sound and safe from various attack vectors. This is the most important and lengthy portion of the audit process (as automated tools often cannot find the nuances that lead to exploits such as flash loan attacks).

Step 2 - Automated Testing

Simulation of a variety of interactions with your Smart Contract on a test blockchain leveraging a combination of automated test tools and manual testing to determine if any security vulnerabilities exist.

Step 3 – Leadership Review

The engineers assigned to the audit will schedule meetings with our leadership team to review the contracts, any comments or findings, and ask questions to further apply adversarial thinking to discuss less common attack vectors.

Step 4 - Resolution of Issues

Consulting with the team to provide our recommendations to ensure the code's security and optimize its gas efficiency, if possible. We assist project team's in resolving any outstanding issues or implementing our recommendations.

Step 5 - Published Audit Report

Boiling down results and findings into an easy-to-read report tailored to the project. Our audit reports highlight resolved issues and any risks that exist to the project or its users, along with any remaining suggested remediation measures. Diagrams are included at the end of each report to help users understand the interactions which occur within the project.

Background

HackSafe was commissioned by Nody to perform an audit of smart contract:

- <https://bscscan.com/address/0xfe01c159ecdee4377abfc4cd1827089c47b806ea#code>

The purpose of the audit was to achieve the

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

The information in this report should be understood 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.

Contract Details

Token contract details for 02.07.2022

Token Type	: ERC20
Contract name	: NodyToken
Contract address	: 0xfe01c159ECdeE4377aBfc4cD1827089C47B806EA
Compiler version	: v0.5.17+commit.d19bba13
Total supply	: 1,000,000,000
Token Ticker	: NODY
Decimals	: 18
Token Holders	: 4,579
Top 100 token holder's dominance	: 99.91%
Transactions count	: 6,951
Contract deployer address	: 0xbA3e8569D406A6e549fA2607632a5205111Aff40
Owner address	: No Owner

Social profiles

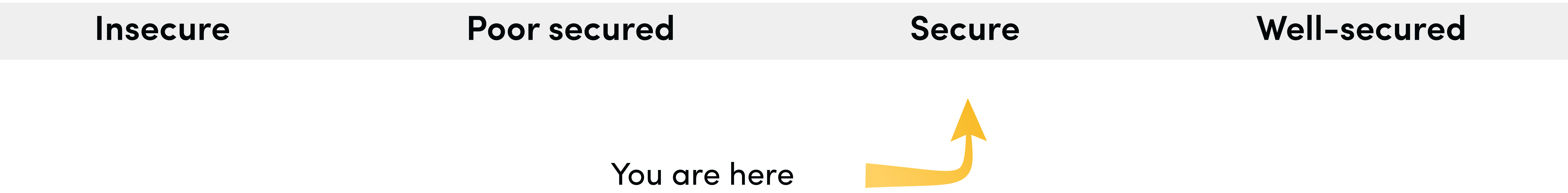
Twitter Profile	: https://twitter.com/Nody_ai
Github Profile	: https://github.com/nodyai
Whitepaper link	: https://docs.nody.ai/docs/nody
Telegram Profile	: https://t.me/nody_ai
Medium Profile	: https://medium.com/@nody_ai
Coinmarketcap profile	: https://coinmarketcap.com/currencies/nody/
Reddit profile	: https://www.reddit.com/r/nody_ai

Claimed Smart Contract Features

Claimed Feature Detail	Our Observation
<p>Tokenomics :</p> <ul style="list-style-type: none">• Name : NodyToken• Symbol : NODY• Decimals : 18• Network : BTC• Protocol : ERC20• Max Total supply : 1,000,000,000• Contract address : 0xfe01c159ECdeE4377aBfc4cD1827089C47B806EA	<p>Yes, This is valid.</p>

Audit Summary

According to the standard audit assessment, Customer`s solidity smart contracts are “Secure”. This token contract does not contain owner control, which do make it fully decentralized as owner does not have control over smart contract.



We used various tools like Slither, Mythril and Remix IDE. At the same time this finding is based on critical analysis of the manual audit. All issues found during analysis were manually reviewed and applicable vulnerabilities are presented in the issues checking status.

We found 0 critical, 0 high, 0 medium and 3 low and some very low-level issues. These issues are not critical ones.

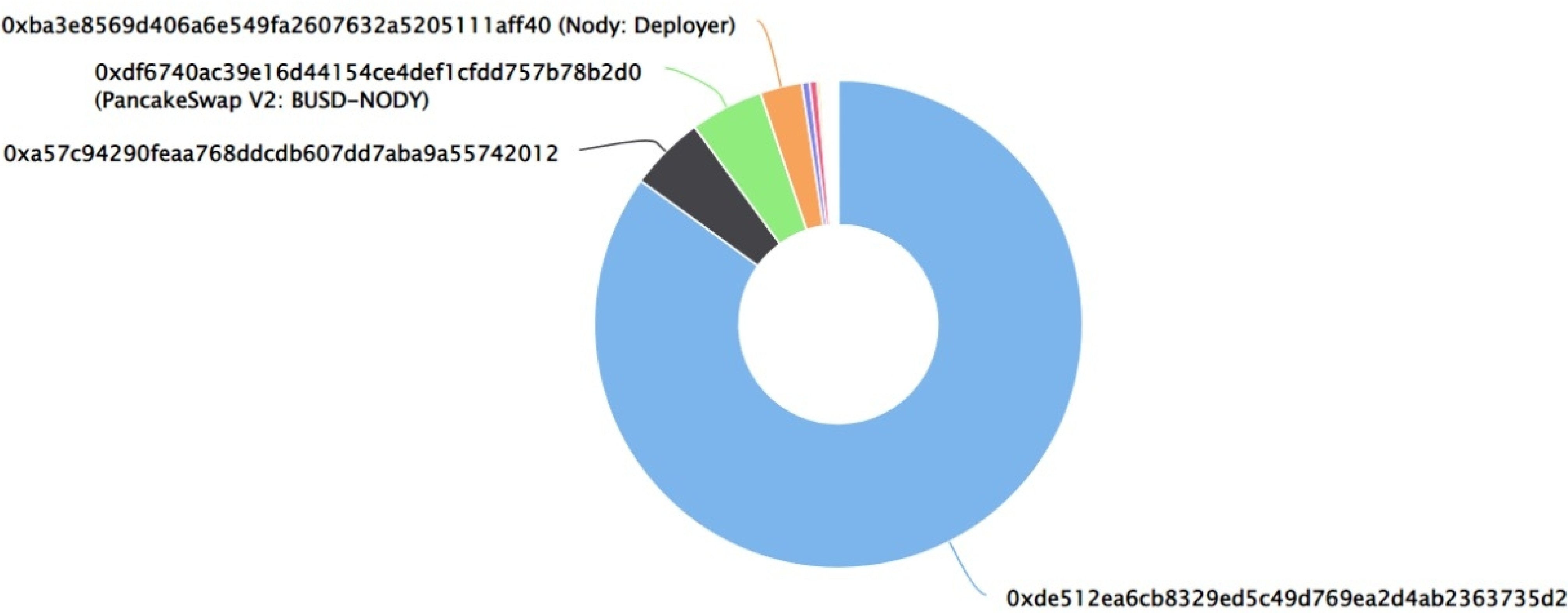
NodyTokenDistribution

The top 100 holders collectively own 99.91% (999,095,939.94 Tokens) of NodyToken

Token Total Supply: 1,000,000,000.00 Token | Total Token Holders: 4,579



NodyToken Top 100 Token Holders

Source: BscScan.com



NodyToken Distribution

NodyToken Top 20 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	0xde512ea6cb8329ed5c49d769ea2d4ab2363735d2	850,000,000	85.0000%
2	 0xa57c94290feaa768ddcdb607dd7aba9a55742012	49,897,899.847440026850915328	4.9898%
3	PancakeSwap V2: BUSD-NODY	48,431,291.21068133747753732	4.8431%
4	Nody: Deployer	27,772,300	2.7772%
5	 Legion Network: Vesting	5,000,000	0.5000%
6	0xc45c80c984d3694a994213bdb652e9f5f809c22f	4,972,172.19169078228960949	0.4972%
7	0xd62b2c296ef91f4349bbe7e0c474ce077c837efb	2,024,368.641826493562577665	0.2024%
8	0x19df4f40491961c94f3cce0a046509b64de2e044	1,411,534.914956010301993771	0.1412%
9	0x8f41824013b3efe40dd2d190c5ae99cee06e7510	1,114,093.909372684984741378	0.1114%
10	0xc5e815ff160c807ac82445e37e6629157d21fd5e	1,019,906.699686788529988334	0.1020%
11	0x0ddf2cc7bb1274997522d3e4d792da57689857f5	986,002.14336879569675301	0.0986%
12	0xf9d1a6bafe77626dcba6435a857b364d1ce6d7a3	963,940.974393918288086317	0.0964%
13	0x7ecbcf9344c770034ec4e7ef95ba5d93d27a5019	900,000.000000259723885687	0.0900%
14	0xf5b8769f01fec8578b52042dd849a6d8dd405e13	700,177.767198205816291291	0.0700%
15	0x36598491f0e7303b12ff1e031ca24c3ca6305b96	689,783.858715672588570663	0.0690%
16	0xc6c1706d56855f0ab120006c509984e737a6be4c	626,912.319215559855728536	0.0627%
17	0xf63c1785e2471f0a55f9bf7dee3b01bf3717a2cb	229,181.54948872361576355	0.0229%
18	0xe9367bae6ab53b14ee6342acfb5c3a8aec200e51	202,762.038646630022232719	0.0203%
19	0x5e532438d61fc89349fa70e60031aadbe658c575	185,684.769174836101945515	0.0186%
20	0x0000000a166f5c535c07435ffe5f36826ad171a5	185,098.065077348978185559	0.0185%

Contract functions details

+ ERC20

- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] allowance
- [Pub] transfer
- [Pub] transferFrom
- [Pub] approve

+ NodyToken (ERC20)

- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] allowance
- [Pub] transfer
- [Pub] transferFrom
- [Pub] approve
- [Pub] constructor \$
- [Ext] \$

(\$) = payable function

= non-constant function

Issues Checking Status

No.	Title	Status
1.	Unlocked Compiler Version	Low issue
2.	Missing Input Validation	Passed
3.	Race conditions and Reentrancy. Cross-function race conditions.	Passed
4.	Possible delays in data delivery	Passed
5.	Oracle calls.	Passed
6.	Timestamp dependence.	Passed
7.	Integer Overflow and Underflow	Passed
8.	DoS with Revert.	Passed
9.	DoS with block gas limit.	Passed
10.	Methods execution permissions.	Passed
11.	Economy model of the contract.	Passed
12.	Private use data leaks.	Passed
13.	Malicious Event log.	Passed
14.	Scoping and Declarations.	Passed
15.	Uninitialized storage pointers.	Passed
16.	Arithmetic accuracy.	Passed
17.	Design Logic.	Low issue
18.	Safe Open Zeppelin contracts implementation and usage.	Passed
19.	Incorrect Naming State Variable	Passed
20.	Compiler version too old	Low issue

Severity Definitions

Risk Level	Description
Critical	Critical vulnerabilities are usually straightforward to exploit and can lead to assets loss or data manipulations.
High	High-level vulnerabilities are difficult to exploit; however, they also have a significant impact on smart contract execution, e.g., public access to crucial functions
Medium	Medium-level vulnerabilities are important to fix; however, they can't lead to assets loss or data manipulations.
Low	Low-level vulnerabilities are mostly related to outdated, unused, etc. code snippets that can't have a significant impact on execution.

Security Issues

✔ Critical Severity Issues

No critical severity issue found.

✔ High Severity Issues

No high severity issue found.

✔ Medium Severity Issues

No medium severity issues found.

✔ Low Severity Issues

Three low severity issue found.

1. Unlocked Compiler Version.

- **Description**

The contract utilizes an unlocked compiler version. An unlocked compiler version in the contract's source code permits the user to compile it at or above a particular version. This, in turn, leads to differences in the generated bytecode between compilations due to differing compiler version numbers. This can lead to ambiguity when debugging as compiler-specific bugs may occur in the codebase that would be difficult to identify over a span of multiple compiler versions rather than a specific one.

- **Recommendation**

It is advisable that the compiler version is alternatively locked at the lowest version possible so that the contract can be compiled. For example, for version $\geq 0.4.22 < 0.6.0$ the contract should contain the following line:

```
pragma solidity 0.5.17;
```

2. Design logic

- **Description**

Transfer, transferFrom function do not check if the receiver's address is zero address or not.

- **Location:**

Transfer, transferFrom function.

- **Recommendation**

We advise you to add require condition in both of the function checking that if receiver's address is not zero address as this can end to sending tokens to zero address which can not be return back.

3. Old compiler version

- **Description**

Smart contract is deployed on old compiler version.

- **Recommendation**

We advise you to use new versions of solidity as new versions are more secure compare to older ones.

Conclusion

Smart contract contains low severity issues! The further transfer and operations with the fund raised are not related to this particular contract.

HackSafe 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.