



**TechRate**  
AUDIT COMPANY

# Smart Contract Security Audit

# Audit Details



Audited project

**BNB Gold**



Deployer address

**0xf9771e8152c1bd53be5a3ae90e883bb6bd387398**



Client contacts:

**BNB Gold team**



Blockchain

**Binance Smart Chain**



Project website:

**Not provided by BNB Gold 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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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.

# Background

TechRate was commissioned by BNB Gold to perform an audit of smart contracts:

<https://bscscan.com/address/0xc836dcc9c880d4558c301e6d439db1b1dc7f3a#contracts>

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

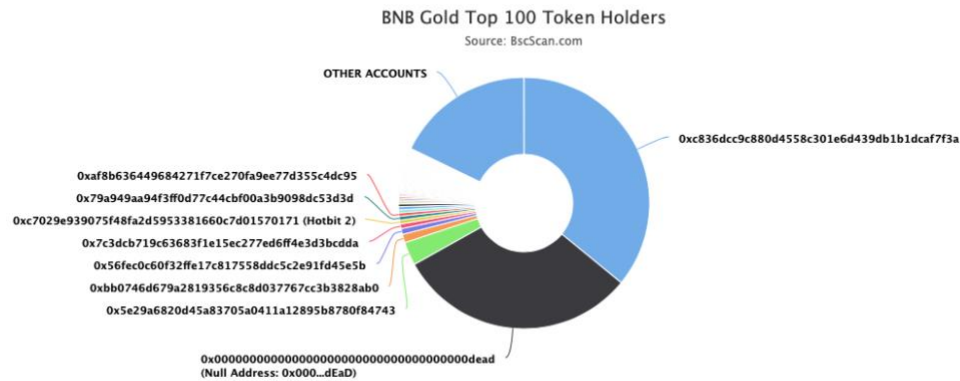
## Token contract details for 31.12.2021

Contract name	BNB Gold
Contract address	0xC836DCC9c880D4558C301e6d439db1B1DCaF7F3a
Total supply	100,000,000,000
Token ticker	BNB GOLD
Decimals	18
Token holders	34,244
Transactions count	201,074
Top 100 holders dominance	82.16%
Contract deployer address	0xf9771e8152c1bd53be5a3ae90e883bb6bd387398
Contract's current owner address	0xf9771e8152c1bd53be5a3ae90e883bb6bd387398

# BNB Gold Token Distribution

The top 100 holders collectively own 82.16% (82,155,922,425.93 Tokens) of BNB Gold

Token Total Supply: 100,000,000,000.00 Token | Total Token Holders: 34,244

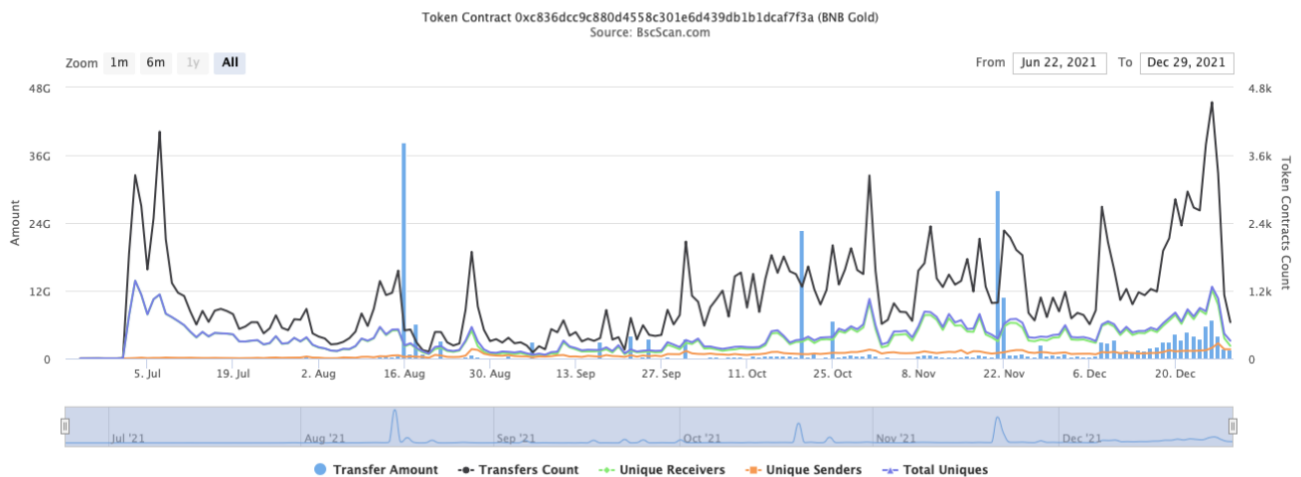


(A total of 82,155,922,425.93 tokens held by the top 100 accounts from the total supply of 100,000,000,000.00 token)

# BNB Gold Contract Interaction Details


Time Series: Token Contract Overview

Thu 24, Jun 2021 - Wed 29, Dec 2021





# BNB Gold Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	 <a href="#">0xc836dcc9c880d4558c301e6d439db1b1dcaf7f3a</a>	35,912,320,779.054981523868963473	35.9123%
2	Null Address: 0x000...dEaD	31,000,000,000	31.0000%
3	<a href="#">0x5e29a6820d45a83705a0411a12895b8780f84743</a>	2,995,452,971.492284608404956713	2.9955%
4	<a href="#">0xbb0746d679a2819356c8c8d037767cc3b3828ab0</a>	1,090,401,330	1.0904%
5	<a href="#">0x56fec0c60f32ffe17c817558ddc5c2e91fd45e5b</a>	750,609,090	0.7506%
6	<a href="#">0x7c3dcb719c63683f1e15ec277ed6ff4e3d3bcdada</a>	576,078,513.756106013029920588	0.5761%
7	Hotbit 2	500,000,000	0.5000%
8	<a href="#">0x79a949aa94f3ff0d77c44cbf00a3b9098dc53d3d</a>	486,940,019.216438926388662623	0.4869%
9	<a href="#">0xaf8b636449684271f7ce270fa9ee77d355c4dc95</a>	431,697,700.650969184819983588	0.4317%
10	<a href="#">0x1c7f944da4565b45e297ea70bc585ab89a588313</a>	408,120,000	0.4081%



# Contract functions details

## + [Lib] SafeMath

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

## + BNBGOLD

- [Pub] <Constructor> #
- [Ext] <Fallback> #
- [Ext] <Fallback> (\$)
- [Pub] name
- [Pub] owner
- [Pub] symbol
- [Int] \_msgSender
- [Pub] decimals
- [Pub] cap
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] allowance
- [Pub] authNum #
- [Pub] transferOwnership #
- [Pub] setAuth #
  - modifiers: onlyOwner
- [Int] \_mint #
- [Int] \_approve #
- [Pub] transferFrom #
- [Pub] approve #
- [Pub] clearETH #
  - modifiers: onlyOwner
- [Int] \_transfer #
- [Pub] set #
  - modifiers: onlyOwner
- [Pub] transfer #
- [Pub] getBlock
- [Pub] airdrop (\$)
- [Pub] buy (\$)

(\$)= payable function

# = non-constant function



# Issues Checking Status

Issue description	Checking status
1. Compiler errors.	Passed
2. Race conditions and Reentrancy. Cross-function race conditions.	Passed
3. Possible delays in data delivery.	Passed
4. Oracle calls.	Passed
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.	Passed
10. Methods execution permissions.	Passed
11. Economy model of the contract.	Medium issues
12. The impact of the exchange rate on the logic.	Passed
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.	Passed
19. Cross-function race conditions.	Passed
20. Safe Open Zeppelin contracts implementation and usage.	Passed
21. Fallback function security.	Passed

# Security Issues

## ✓ High Severity Issues

No high severity issues found.

## ✓ Medium Severity Issues

### 1. Wrong minting

Issue:

- The function `_mint()` do not increase total supply but increases cap value.

Recommendation:

Increase total supply under cap value not vice versa.

## ✓ Low Severity Issues

No low severity issues found.

**Owner privileges (In the period when the owner is not renounced)**

- Owner can change contracts presets.
- Owner can withdraw contract BNBs.

# Conclusion

Smart contracts contain medium severity issues! Audited only sale contract. The further transfers and operations with the funds raise are not related to this particular contract.

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## ***TechRate 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.***



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