

# AUDIT.



## Smart Contract Audit

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AUDIT-SC  
PARTNER  
NEXUS

[WWW.AUDIT.SC](http://WWW.AUDIT.SC)

2021





# FULL SMART CONTRACT AUDIT SOLIDITY CHECK

Audit SC Guarantees that every smart contract that has been audited has gone through both automated Smart Contract Scanner Softwares and is manually verified by one of our highly experienced smart contract experts.



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# 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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# OVERVIEW

## PROJECT SUMMARY

Project Name **Nexus Crypto Services, Nexus Token v2, Anti-bot version**

Platform **Binance Smart Chain**

Language **Solidity**

Codebase <https://github.com/Nexus-Crypto-Services/nexus-token/tree/master/token/contracts>

## AUDIT SUMMARY

Date **14-10-2021**

Audit Type **Static Analysis, Manual Review**

Audit Result **PASSED**

## RISK SUMMARY

Risk Level	Total	Found	Pending	Solved	Acknowledgde	Objected
Critical	0	0	0	0	0	0
Major	0	0	0	0	0	0
Medium	0	0	0	0	0	0
Minor	0	0	0	0	0	0
Informative	7	7	7	0	0	0
Discussion	0	0	0	0	0	0

# FINDINGS

## Function Default Visibility

SWC-ID: SWC-100

*Relationship:*

CWE-710: Improper Adherence to Coding Standards

*Description:*

Functions that do not have a function visibility type specified are public by default. This can lead to a vulnerability if a developer forgot to set the visibility and a malicious user is able to make unauthorized or unintended state changes or unnecessary gas usage.

*Relevance:*

public functions that are never called by the contract should be declared external to save gas.

Category	Risk Level	Number of Findings	Status
SWC-100	Informative	<b>6</b>	Pending

## Constable State

*Description:*

Constant state variables should be declared constant to save gas.

*Relevance:*

Unchanging variables, such as name, decimals, and symbols can be declared constant to save gas

Category	Risk Level	Number of Findings	Status
Optimization	Informative	<b>1</b>	Pending

# AUDIT DETAILS

## SCW-100 Function Default Visibility

*setRouterAddress(address) should be declared external:*

- *Nexus.setRouterAddress(address) (nexus-token/contracts/Nexus.sol#69-75)*

*setMarketAddress(address) should be declared external:*

- *Nexus.setMarketAddress(address) (nexus-token/contracts/Nexus.sol#356-360)*

*name() should be declared external:*

- *Nexus.name() (nexus-token/contracts/Nexus.sol#77-79)*

*symbol() should be declared external:*

- *Nexus.symbol() (nexus-token/contracts/Nexus.sol#81-83)*

*decimals() should be declared external:*

- *Nexus.decimals() (nexus-token/contracts/Nexus.sol#85-87)*

*totalSupply() should be declared external:*

- *Nexus.totalSupply() (nexus-token/contracts/Nexus.sol#89-91)*

## Constable State

*Decimals should be constant*

- *Nexus.\_decimals (nexus-token/contracts/Nexus.sol#34)*

# AUDIT RESULT

## Basic Coding Bugs

### 1. Constructor Mismatch

*o Description: Whether the contract name and its constructor are not identical to each other.*

*o Result: PASSED*

*o Severity: Critical*

## Ownership Takeover

*o Description: Whether the set owner function is not protected.*

*o Result: PASSED*

*o Severity: Critical*

## Redundant Fallback Function

*o Description: Whether the contract has a redundant fallback function.*

*o Result: PASSED*

*o Severity: Critical*

## Overflows & Underflows

*Description: Whether the contract has general overflow or underflow*

*Vulnerabilities*

*o Result: PASSED*

*o Severity: Critical*

## Reentrancy

*o Description: Reentrancy is an issue when code can call back into your contract and change state, such as withdrawing ETHs.*

*o Result: PASSED*

*o Severity: Critical*

## MONEY-Giving Bug

*o Description: Whether the contract returns funds to an arbitrary address.*

*o Result: PASSED*

*o Severity: High*

## Blackhole

*o Description: Whether the contract locks ETH indefinitely; merely in without out.*

*o Result: PASSED*

*o Severity: High*

## Unauthorized Self-Destruct

*o Description: Whether the contract can be killed by any arbitrary address.*

*o Result: PASSED*

*o Severity: Medium*

## Revert DoS

*o Description: Whether the contract is vulnerable to DoS attack because of unexpected revert.*

*o Result: PASSED*

*o Severity: Medium*

## Unchecked External Call

*o Description: Whether the contract has any external call without checking the return value.*

*o Result: PASSED*

*o Severity: Medium*

## Gasless Send

*o Description: Whether the contract is vulnerable to gasless send.*

*o Result: PASSED*

*o Severity: Medium*

## Send Instead of Transfer

*o Description: Whether the contract uses send instead of transfer.*

*o Result: PASSED*

*o Severity: Medium*

## Costly Loop

*o Description: Whether the contract has any costly loop which may lead to Out-Of-Gas exception.*

*o Result: PASSED*

*o Severity: Medium*

## (Unsafe) Use of Untrusted Libraries

*o Description: Whether the contract use any suspicious libraries.*

*o Result: PASSED*

*o Severity: Medium*

## (Unsafe) Use of Predictable Variables

*o Description: Whether the contract contains any randomness variable, but its value can be predicated.*

*o Result: PASSED*

*o Severity: Medium*

## Transaction Ordering Dependence

*o Description: Whether the final state of the contract depends on the order of the transactions.*

*o Result: PASSED*

*o Severity: Medium*

## . Deprecated Uses

*o Description: Whether the contract use the deprecated tx.origin to perform the authorization.*

*o Result: PASSED*

*o Severity: Medium*

# AUDIT.



## CONTACTUS

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