CFG NINJA AUDITS

Security Assessment

Enigma Token Token

October 18, 2023

Audit Status: Pass

Audit Edition: Pinksale

ENIGMA

THE ENIGMA IS COMING

POWERED BY BLADE POOL

Risk Analysis

Classifications of Manual Risk Results

Classification	Description
Critical	Danger or Potential Problems.
High	Be Careful or Fail test.
Low	Pass, Not-Detected or Safe Item.
Informational	Function Detected

Manual Code Review Risk Results

Contract Priviledge	Description
Buy Tax	7%
Sale Tax	7%
Cannot Sale	Pass
Cannot Sale	Pass
Max Tax	25
Modify Tax	Yes
Fee Check	Pass
Is Honeypot?	Not Detected
Trading Cooldown	Not Detected
Can Pause Trade?	Pass

Contract Priviledge	Description
Pause Transfer?	Not Detected
Max Tx?	Pass
Is Anti Whale?	Not Detected
Is Anti Bot?	Not Detected
Is Blacklist?	Not Detected
Blacklist Check	Pass
is Whitelist?	Not Detected
Can Mint?	Pass
Is Proxy?	Not Detected
Can Take Ownership?	Not Detected
Hidden Owner?	Not Detected
Owner	0x604E06943e683E0417E157BF33b2ECe442c7D6d1
Self Destruct?	Not Detected
External Call?	Not Detected
Other?	Not Detected
Holders	1
Auditor Confidence	Low
KYC Completed	No

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.

Project Overview

Token Summary

Parameter	Result
Address	0xCb8EA387C07D458E4c0d0dC507B156B7a535a48f
Name	Enigma Token
Token Tracker	Enigma Token (Enigma)
Decimals	9
Supply	500,000,000,000
Platform	Ethereum
compiler	v0.8.4+commit.c7e474f2
Contract Name	LiquidityGeneratorToken
Optimization	Yes with 200 runs
LicenseType	MIT
Language	Solidity
Codebase	https://etherscan.io/address/0xCb8EA387C07D458E4c0d0dC507B156B7a535a48f#code
Payment Tx	Corporate

Main Contract Assessed
Contract Name

Name	Contract	Live
Enigma Token	0xCb8EA387C07D458E4c0d0dC507B156B7a535a48f	Yes

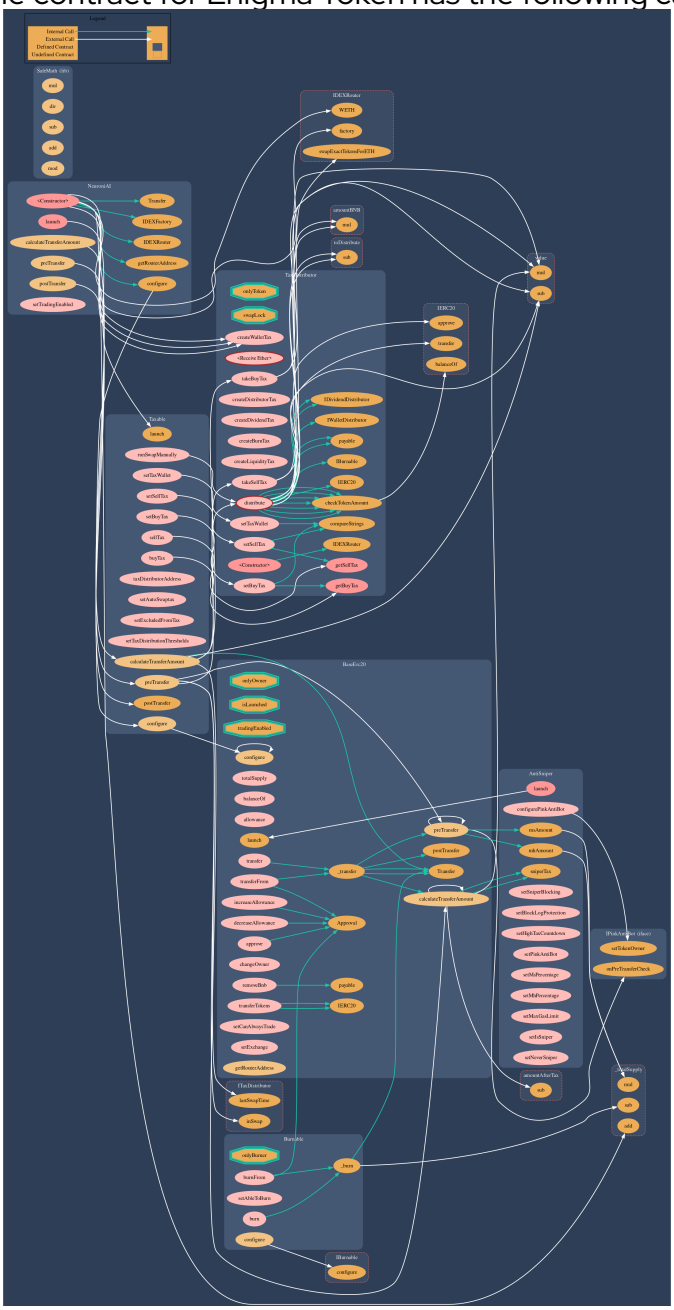
TestNet Contract was Not Assessed

Solidity Code Provided

SolID	File Sha-1	FileName
LP	c13d13a571cf67e50a9dd35ceb3976515e0ccb52	LiquidityGeneratorv1.sol

Call Graph

The contract for Enigma Token has the following call graph structure.



Smart Contract Vulnerability Checks

The Smart Contract Weakness Classification Registry (SWC Registry) is an implementation of the weakness classification scheme proposed in EIP-1470. It is loosely aligned to the terminologies and structure used in the Common Weakness Enumeration (CWE) while overlaying a wide range of weakness variants that are specific to smart contracts.

ID	Severity	Name	File	location
SWC-100	Pass	Function Default Visibility	LiquidityGenerator.sol	L: 0 C: 0
SWC-101	Pass	Integer Overflow and Underflow.	LiquidityGenerator.sol	L: 0 C: 0
SWC-102	Pass	Outdated Compiler Version file.	LiquidityGenerator.sol	L: 0 C: 0
SWC-103	Pass	A floating pragma is set.	LiquidityGenerator.sol	L: 0 C: 0
SWC-104	Pass	Unchecked Call Return Value.	LiquidityGenerator.sol	L: 0 C: 0
SWC-105	Pass	Unprotected Ether Withdrawal.	LiquidityGenerator.sol	L: 0 C: 0
SWC-106	Pass	Unprotected SELFDESTRUCT Instruction	LiquidityGenerator.sol	L: 0 C: 0
SWC-107	Pass	Read of persistent state following external call.	LiquidityGenerator.sol	L: 0 C: 0
SWC-108	Low	State variable visibility is not set..	LiquidityGenerator.sol	L: 959 C: 9
SWC-109	Pass	Uninitialized Storage Pointer.	LiquidityGenerator.sol	L: 0 C: 0
SWC-110	Pass	Assert Violation.	LiquidityGenerator.sol	L: 0 C: 0

ID	Severity	Name	File	location
SWC-111	Pass	Use of Deprecated Solidity Functions.	LiquidityGenerator.sol	L: 0 C: 0
SWC-112	Pass	Delegate Call to Untrusted Callee.	LiquidityGenerator.sol	L: 0 C: 0
SWC-113	Pass	Multiple calls are executed in the same transaction.	LiquidityGenerator.sol	L: 0 C: 0
SWC-114	Pass	Transaction Order Dependence.	LiquidityGenerator.sol	L: 0 C: 0
SWC-115	Pass	Authorization through tx.origin.	LiquidityGenerator.sol	L: 0 C: 0
SWC-116	Pass	A control flow decision is made based on The block.timestamp environment variable.	LiquidityGenerator.sol	L: 0 C: 0
SWC-117	Pass	Signature Malleability.	LiquidityGenerator.sol	L: 0 C: 0
SWC-118	Pass	Incorrect Constructor Name.	LiquidityGenerator.sol	L: 0 C: 0
SWC-119	Pass	Shadowing State Variables.	LiquidityGenerator.sol	L: 0 C: 0
SWC-120	Pass	Potential use of block.number as source of randonmness.	LiquidityGenerator.sol	L: 0 C: 0
SWC-121	Pass	Missing Protection against Signature Replay Attacks.	LiquidityGenerator.sol	L: 0 C: 0
SWC-122	Pass	Lack of Proper Signature Verification.	LiquidityGenerator.sol	L: 0 C: 0
SWC-123	Pass	Requirement Violation.	LiquidityGenerator.sol	L: 0 C: 0
SWC-124	Pass	Write to Arbitrary Storage Location.	LiquidityGenerator.sol	L: 0 C: 0

ID	Severity	Name	File	location
SWC-125	Pass	Incorrect Inheritance Order.	LiquidityGenerator.sol	L: 0 C: 0
SWC-126	Pass	Insufficient Gas Griefing.	LiquidityGenerator.sol	L: 0 C: 0
SWC-127	Pass	Arbitrary Jump with Function Type Variable.	LiquidityGenerator.sol	L: 0 C: 0
SWC-128	Pass	DoS With Block Gas Limit.	LiquidityGenerator.sol	L: 0 C: 0
SWC-129	Pass	Typographical Error.	LiquidityGenerator.sol	L: 0 C: 0
SWC-130	Pass	Right-To-Left-Override control character (U +202E).	LiquidityGenerator.sol	L: 0 C: 0
SWC-131	Pass	Presence of unused variables.	LiquidityGenerator.sol	L: 0 C: 0
SWC-132	Pass	Unexpected Ether balance.	LiquidityGenerator.sol	L: 0 C: 0
SWC-133	Pass	Hash Collisions with Multiple Variable Length Arguments.	LiquidityGenerator.sol	L: 0 C: 0
SWC-134	Pass	Message call with hardcoded gas amount.	LiquidityGenerator.sol	L: 0 C: 0
SWC-135	Pass	Code With No Effects (Irrelevant/Dead Code).	LiquidityGenerator.sol	L: 0 C: 0
SWC-136	Pass	Unencrypted Private Data On-Chain.	LiquidityGenerator.sol	L: 0 C: 0

We scan the contract for additional security issues using MYTHX and industry-standard security scanning tools.

Smart Contract Vulnerability Details

SWC-108 - State Variable Default Visibility

CWE-710: Improper Adherence to Coding Standards

Description:

Labeling the visibility explicitly makes it easier to catch incorrect assumptions about who can access the variable.

Remediation:

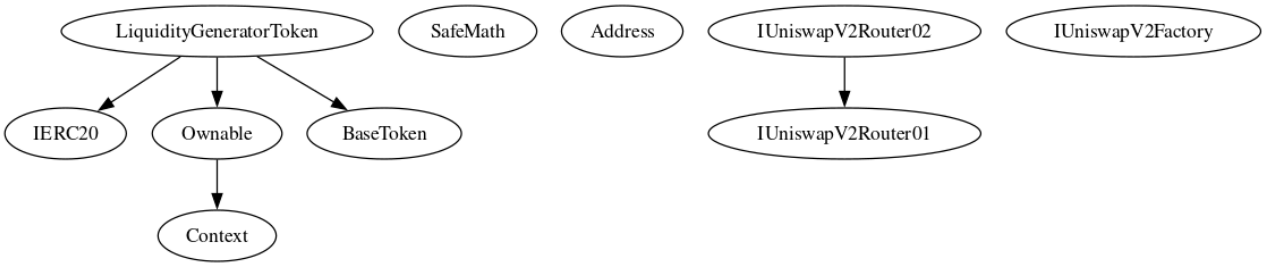
Variables can be specified as being public, internal or private. Explicitly define visibility for all state variables.

References:

Ethereum Smart Contract Best Practices - Explicitly mark visibility in functions and state variables

Inheritance

The contract for Enigma Token has the following inheritance structure.



Smart Contract Advance Checks

ID	Severity	Name	Result	Status
Enigma-01	Low	Potential Sandwich Attacks.	Pass	Not-Found
Enigma-02	Informational	Function Visibility Optimization	Pass	Detected
Enigma-03	Low	Lack of Input Validation.	Pass	Detected
Enigma-04	High	Centralized Risk In addLiquidity.	Pass	Not-Found
Enigma-05	Low	Missing Event Emission.	Pass	Detected
Enigma-06	Low	Conformance with Solidity Naming Conventions.	Pass	Not-Found
Enigma-07	Low	State Variables could be Declared Constant.	Pass	Not-Found
Enigma-08	Low	Dead Code Elimination.	Pass	Not-Found
Enigma-09	High	Third Party Dependencies.	Pass	Detected
Enigma-10	High	Initial Token Distribution.	Pass	Not-Found
Enigma-11	High	claimStuckTokens can claim own tokens.	Pass	Detected
Enigma-12	High	Centralization Risks In The X Role	Pass	Not-Found
Enigma-13	Informational	Extra Gas Cost For User..	Pass	Detected
Enigma-14	Informational	Unnecessary Use Of SafeMath	Fail	Pending
Enigma-15	Medium	Symbol Length Limitation due to Solidity Naming Standards.	Pass	Detected

ID	Severity	Name	Result	Status
Enigma-16	Medium	Taxes can be up to 100%	Pass	Not Detected
Enigma-17	Logical Issue	Highly Permissive Role Access.,`	Pass	Detected
Enigma-18	Critical	Stop Transactions by using Enable Trade.	Pass	Not Detected

Enigma-14 | Unnecessary Use Of SafeMath

Category	Severity	Location	Status
Logical Issue	Informational	LiquidityGenerator.sol: 205, 10	Pending

Description

The SafeMath library is used unnecessarily. With Solidity compiler versions 0.8.0 or newer, arithmetic operations
will automatically revert in case of integer overflow or underflow.
library SafeMath {
An implementation of SafeMath library is found.
using SafeMath for uint256;
SafeMath library is used for uint256 type in contract.

Remediation

We advise removing the usage of SafeMath library and using the built-in arithmetic operations provided by the
Solidity programming language

Project Action

Technical Findings Summary

Classification of Risk

Severity	Description
Critical	Risks are those that impact the safe functioning of a platform and must be addressed before launch. Users should not invest in any project with outstanding critical risks.
High	Risks can include centralization issues and logical errors. Under specific circumstances, these major risks can lead to loss of funds and/or control of the project.
Medium	Risks may not pose a direct risk to users' funds, but they can affect the overall functioning of a platform
Low	Risks can be any of the above but on a smaller scale. They generally do not compromise the overall integrity of the Project, but they may be less efficient than other solutions.
Informational	Errors are often recommended to improve the code's style or certain operations to fall within industry best practices. They usually do not affect the overall functioning of the code.

Findings

Severity	Found	Pending	Resolved
Critical	0	0	0
High	0	0	0
Medium	1	0	0
Low	0	0	0
Informational	0	0	0
Total	1	0	0

Social Media Checks

Social Media	URL	Result
Twitter	https://twitter.com/enigmaiscoming	Pass
Other	https://www.tiktok.com/@enigmaiscoming	Pass
Website	https://enigmaiscoming.com/	Pass
Telegram	https://t.me/Enigmacoming	Pass

We recommend to have 3 or more social media sources including a completed working websites.

Social Media Information Notes:

Auditor Notes: undefined

Project Owner Notes:

Audit Result

Final Audit Score

Review	Score
Security Score	85
Auditor Score	80

The Following Score System Has been Added to this page to help understand the value of the audit, the maximun score is 100, however to attain that value the project most pass and provide all the data needed for the assessment. Our Passing Score has been changed to 80 Points, if a project does not attain 80% is an automatic failure. Read our notes and final assessment below.

Audit Passed

Assessment Results

Important Notes:

- No issues or vulnerabilities were found.
- This is a Pinksale Liquidity Generator token, please review the tax structure.
- Please DYOR on the project.

Auditor Score =80
Audit Passed

Appendix

Finding Categories

Centralization / Privilege

Centralization / Privilege findings refer to either feature logic or implementation of components that actagainst the nature of decentralization, such as explicit ownership or specialized access roles incombination with a mechanism to relocate funds.

Gas Optimization

Gas Optimization findings do not affect the functionality of the code but generate different, more optimalEVM opcodes resulting in a reduction on the total gas cost of a transaction.

Logical Issue

Logical Issue findings detail a fault in the logic of the linked code, such as an incorrect notion on howblock.timestamp works.

Control Flow

Control Flow findings concern the access control imposed on functions, such as owner-only functionsbeing invoke-able by anyone under certain circumstances.

Volatile Code

Volatile Code findings refer to segments of code that behave unexpectedly on certain edge cases that mayresult in a vulnerability.

Coding Style

Coding Style findings usually do not affect the generated byte-code but rather comment on how to makethe codebase more legible and, as a result, easily maintainable.

Inconsistency

Inconsistency findings refer to functions that should seemingly behave similarly yet contain different code,such as a constructor assignment imposing different require statements on the input variables than a setterfunction.

Coding Best Practices

ERC 20 Conding Standards are a set of rules that each developer should follow to ensure the code meet a set of creterias and is readable by all the developers.

Disclaimer

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