CONTRACT WOLF

Blockchain Security - Smart Contract Audits

Security Assessment

February 8, 2022

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ContractWolf provides transparent report to all its "clients" and to its "clients participants" and will not claim any guarantee of bug-free code within it’s **SMART CONTRACT**.

ContractWolf presence is to analyze, audit and assess the client's smart contract's code.

Each company or projects should be liable to its security flaws and functionalities.

Network

BSC / Binance Smart Chain (BEP20 protocol)

Website

https://www.everrise.com/

Telegram

https://t.me/everriseofficial

Twitter

https://twitter.com/intent/follow?screen_name=everrise

YouTube

https://www.youtube.com/channel/UCCDMjFJUr9OvV03I3wNX7lw

Discord

https://discord.com/invite/everrise

Instagram

https://www.instagram.com/everrisetoken/

Facebook

https://www.facebook.com/EverRiseToken

Reddit

https://www.reddit.com/r/EverRise/

Description

EverRise token (RISE) is a multi-chain collateralized cryptocurrency that serves as a utility token for cross-chain transfers and secures both the ecosystem and holders with its innovative buyback and staking protocol.

ContractWolf Engagement

8th of February 2022, **EverRise** engaged and agrees to audit their smart contract's code by ContractWolf. The goal of this engagement was to identify if there is a possibility of security flaws in the implementation of the contract or system.

ContractWolf will be focusing on contract issues and functionalities along with the projects claims from smart contract to their website, whitepaper and repository which has been provided by **EverRise.**

Logo

Contract Link

https://bscscan.com/address/0x0cD022ddE27169b20895e0e2B2B8A33B25e63579

Risk level classification

Risk Level represents the classification or the probability that a certain function or threat that can exploit vulnerability and have an impact within the system or contract.
Risk Level is computed based on CVSS Version 3.0

Level	Value	Vulnerability
Critical	9 - 10	An exposure that can affect the contract functions in several events that can risk and disrupt the contract
High	7 - 8.9	An exposure that can affect the outcome when using the contract that can serve as an opening in manipulating the contract in an unwanted manner
Medium	4 - 6.9	An opening that could affect the outcome in executing the contract in a specific situation
Low	0.1 - 3.9	An opening but doesn't have an impact on the functionality of the contract
Informational	0	An opening that consists of information's but will not risk or affect the contract

Auditing Approach

Every line of code along with its functionalities will undergo manual review to check its security issues, quality, and contract scope of inheritance. The manual review will be done by our team that will document any issues that there were discovered.

Methodology

The auditing process follows a routine series of steps:

1. Code review that includes the following:

    - Review of the specifications, sources, and instructions provided to ContractWolf to make sure we understand the size, scope, and functionality of the smart contract.
    - Manual review of code, our team will have a process of reading the code line-by-line with the intention of identifying potential vulnerabilities and security flaws.

2. Testing and automated analysis that includes:

    - Testing the smart contract functions with common test cases and scenarios, to ensure that it returns the expected results.

3. Best practices review, the team will review the contract with the aim to improve efficiency, effectiveness, clarifications, maintainability, security, and control within the smart contract.

4. Recommendations to help the project take steps to secure the smart contract.

Used Code from other Frameworks/Smart Contracts (Direct Imports)

Imported Packages

- IERC20
- IUniswapV2Factory
- IUniswapV2Pair
- IUniswapV2Router01
- IUniswapV2Router02
- IEverStake
- SafeMath
- PairHelper
- Context
- Ownable
- EverRise

Description

Optimization enabled: Yes
Version: v0.8.8

Decimals: 18

Symbol: $RISE

Capabilities

Components

Version	Contracts	Libraries	Interfaces	Abstract
1.0	2	2	6	1

Exposed Functions

Version	Public	Private
1.0	10	28

Version	External	Internal
1.0	114	12

State Variables

Version	Total	Public
1.0	17	48

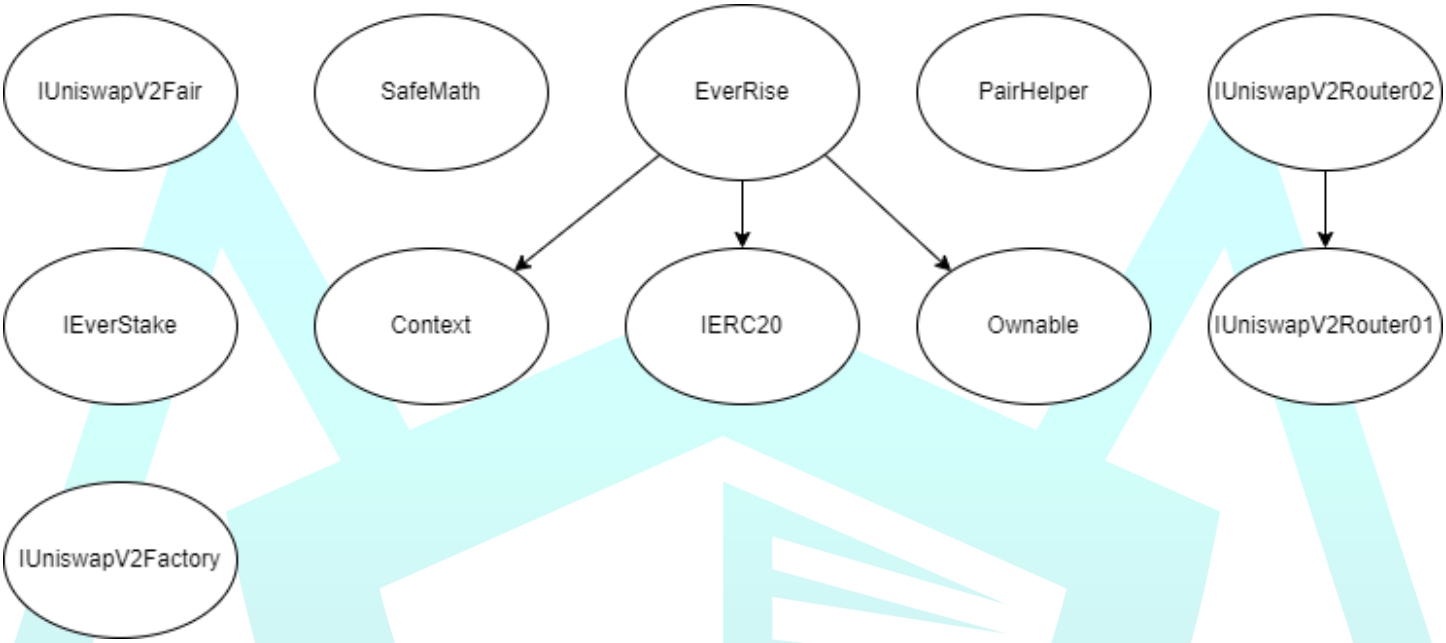
Capabilities

Version	Solidity Versions Observed	Experimental Features	Can Receive Funds	Uses Assembly	Has Destroyable Contracts
1.0	^0.8.8		Yes	Yes (1 asm block)	No

Scope of Work

EverRise's team provided us with the files that needs to be tested (Github, Bscscan, Etherscan, files, etc.). The scope of the audit is the main contract.

Inheritance Graph



Verify Claims

Correct implementation of Token Standard

Tested	Verified
✓	✗

Function	Description	Exist	Tested	Verified
TotalSupply	Information about the total coin or token supply	✓	✓	✓
BalanceOf	Details on the account balance from a specified address	✓	✓	✓
Transfer	An action that transfers a specified amount of coin or token to a specified address	✓	✓	✓
TransferFrom	An action that transfers a specified amount of coin or token from a specified address	✓	✓	✓
Approve	Provides permission to withdraw specified number of coin or token from a specified address	✓	✓	✓
Allowance	Sets a specific number of coin or token that allows a specified address to utilize	✓	✓	✓

Optional implementation

Function	Description	Exist	Tested	Verified
renounceOwnership	Owner renounce ownership for more trust	✗	✗	✗

Deployer cannot mint any new tokens

Statement	Exist	Tested	Verified	File
Deployer cannot mint	–	–	–	Main

Max / Total supply: 31,536,000

Deployer cannot pause user funds

Statement	Exist	Tested	Verified
Deployer cannot pause	✓	✓	✓

Deployer cannot burn user funds

Statement	Exist	Tested	Verified
Deployer cannot burn	✓	✓	✓

Deployer cannot pause the contract

Statement	Exist	Tested	Verified
Deployer cannot pause	✓	✓	✓

Overall Checkup (Smart Contract Security)

Tested	Verified
✓	✓

Legend

Attribute	Symbol
Verified / Checked	✓
Partly Verified	✗
Unverified / Not checked	⚑
Not Available	–

Write Functions of contract

1. approve
2. authorizedSwapTokenAdd
3. authorizedSwapTokenRemove
4. decreaseAllowance
5. everRiseEcosystemContractAdd
6. everRiseEcosystemContractRemove
7. excludeFromFee
8. includeInFee
9. increaseAllowance
10. lockLiquidity
11. manualBuyback
12. setBusinessDevelopmentAddress
13. setBusinessDevelopmentDivisor
14. setBuyBackEnabled
15. setBuybackMinAvailability
16. setBuybackTriggerTokenLimit
17. setBuybackUpperLimit
18. setEverMigrateAddress
19. setLiquidityFeePercent
19. setLiquidityFeePercent
20. setMaxTxAmount
21. setNumTokensSellToAddToLiquidity
22. setRouterAddress
23. setStakingAddress
24. setSwapAndLiquifyEnabled
25. setTradingEnabled
26. swapTokens
27. transfer
28. transferBalance
29. transferBuybackOwnership
30. transferFrom
31. transferFromWithPermit
32. transferOwnership
33. unlockLiquidity

SWC Attacks

ID	Title	Relationships	Status
SWC-136	Unencrypted Private Data On-Chain	CWE-767: Access to Critical Private Variable via Public Method	PASSED
SWC-135	Code With No Effects	CWE-1164: Irrelevant Code	NOT PASSED
SWC-134	Message call with hardcoded gas amount	CWE-655: Improper Initialization	PASSED
SWC-133	Hash Collisions with Multiple Variable Length Arguments	CWE-294: Authentication Bypass by Capture-replay	PASSED
SWC-132	Unexpected Ether balance	CWE-667: Improper Locking	PASSED
SWC-131	Presence of unused variables	CWE-1164: Irrelevant Code	PASSED
SWC-130	Right-To Left Override control character (U+202E)	CWE-451: User Interface (UI) Misrepresentation of Critical Information	PASSED
SWC-129	Typographical Error	CWE-480: Use of Incorrect Operator	PASSED

SWC-128	DoS With Block Gas Limit	CWE-400: Uncontrolled Resource Consumption	**PASSED**
SWC-127	Arbitrary Jump with Function Type Variable	CWE-695: Use of Low-Level Functionality	**PASSED**
SWC-125	Incorrect Inheritance Order	CWE-696: Incorrect Behavior Order	**PASSED**
SWC-124	Write to Arbitrary Storage Location	CWE-123: Write-what-where Condition	**PASSED**
SWC-123	Requirement Violation	CWE-573: Improper Following of Specification by Caller	**PASSED**
SWC-122	Lack of Proper Signature Verification	CWE-345: Insufficient Verification of Data Authenticity	**PASSED**
SWC-121	Missing Protection against Signature Replay Attacks	CWE-347: Improper Verification of Cryptographic Signature	**PASSED**

SWC-120	Weak Sources of Randomness from Chain Attributes	CWE-330: Use of Insufficiently Random Values	**PASSED**
SWC-119	Shadowing State Variables	CWE-710: Improper Adherence to Coding Standards	**PASSED**
SWC-118	Incorrect Constructor Name	CWE-665: Improper Initialization	**PASSED**
SWC-117	Signature Malleability	CWE-347: Improper Verification of Cryptographic Signature	**PASSED**
SWC-116	Timestamp Dependence	CWE-829: Inclusion of Functionality from Untrusted Control Sphere	**NOT PASSED**
SWC-115	Authorization through tx.origin	CWE-477: Use of Obsolete Function	**PASSED**
SWC-114	Transaction Order Dependence	CWE-362: Concurrent Execution using Shared Resource with Improper Synchronization ('Race Condition')	**NOT PASSED**

SWC-113	DoS with Failed Call	CWE-703: Improper Check or Handling of Exceptional Conditions	**PASSED**
SWC-112	Delegate call to Untrusted Callee	CWE-829: Inclusion of Functionality from Untrusted Control Sphere	**PASSED**
SWC-111	Use of Deprecated Solidity Functions	CWE-477: Use of Obsolete Function	**PASSED**
SWC-110	Assert Violation	CWE-670: Always-Incorrect Control Flow Implementation	**PASSED**
SWC-109	Uninitialized Storage Pointer	CWE-824: Access of Uninitialized Pointer	**PASSED**
SWC-108	State Variable Default Visibility	CWE-710: Improper Adherence to Coding Standards	**PASSED**
SWC-107	Reentrancy	CWE-841: Improper Enforcement of Behavioral Workflow	**PASSED**
SWC-106	Unprotected SELFDESTRUCT Instruction	CWE-284: Improper Access Control	**PASSED**

SWC-105	Unprotected Ether Withdrawal	CWE-284: Improper Access Control	**PASSED**
SWC-104	Unchecked Call Return Value	CWE-252: Unchecked Return Value	**PASSED**
SWC-103	Floating Pragma	CWE-664: Improper Control of a Resource Through its Lifetime	**PASSED**
SWC-102	Outdated Compiler Version	CWE-937: Using Components with Known Vulnerabilities	**PASSED**
SWC-101	Integer Overflow and Underflow	CWE-682: Incorrect Calculation	**PASSED**
SWC-100	Function Default Visibility	CWE-710: Improper Adherence to Coding Standards	**PASSED**

AUDIT PASSED

Critical Issues

No critical issues found

High Issues

No high issues found

Medium Issues

No medium issues found

Low Issues

No low issues found

Informational Issues

No informational issues found

Function Issues

No function issues found

Audit Comments

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- This report is for Binance Smart Chain Contract ONLY
- Contract Cannot mint tokens