ASTROBIATECH
BLOCKCHAIN SECURITY

MADE IN INDIA
BLOCKCHAIN SECURITY

SECURITY ASSESSMENT REPORT

PREPARED FOR
LEVEL UP

@astrobiatech

JUNE
2023

astrobiatech.in

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SCOPE OF AUDIT

The scope of this audit was to analyze and document the LEVEL UP smart contract codebase for quality, security, and correctness.

CHECKED VULNERABILITIES

We have scanned the smart contract for commonly known and morespecific vulnerabilities. Here are some of the commonly known vulnerabilities that we considered:

- Re-entrancy
- Timestamp Dependence
- Gas Limit and Loops
- DoS with Block Gas Limit
- Transaction-Ordering Dependence
- Use of tx.origin
- Exception disorder
- Gasless send
- Balance equality
- Byte array
- Transfer forwards all gas
- ERC20 API violation
- Malicious libraries
- Compiler version not fixed
- Redundant fallback function
- Send instead of transfer
- Style guide violation
- Unchecked external call
- Unchecked math
- Unsafe type inference
- Implicit visibility level

TECHNIQUES & METHODS

Throughout the audit of smart contract, care was taken to ensure:

- The overall quality of code.
- Use of best practices.
- Code documentation and comments match logic and expected behaviour.
- Token distribution and calculations are as per the intended behaviour mentioned in the whitepaper.
- Implementation of ERC-20 token standards.
- Efficient use of gas.
- Code is safe from re-entrancy and other vulnerabilities.

The following techniques, methods and tools were used to review all thesmart contracts.

Static Analysis

Static Analysis of Smart Contracts was done to identify contract vulnerabilities. In this step a series of automated tools are used to testsecurity of smart contracts.

Code Review / Manual Analysis

Manual Analysis or review of code was done to identify new vulnerability or verify the vulnerabilities found during the static analysis.Contracts were completely manually analyzed, their logic was checkedand compared with the one described in the whitepaper. Besides, the results of automated analysis were manually verified.

ISSUE CATEGORIES

Every issue in this report has been assigned with a severity level. There are four levels of severity and each of them has been explained below.

➢ HIGH SEVERITY ISSUES

A high severity issue or vulnerability means that your smart contract can beexploited. Issues on this level are critical to the smart contract's performance or functionality and we recommend these issues to be fixed before movingto a live environment.

➢ MEDIUM SEVERITY ISSUES

The issues marked as medium severity usually arise because of errors and deficiencies in the smart contract code. Issues on this level could potentially bring problems and they should still be fixed.

➢ LOW SEVERITY ISSUES

Low level severity issues can cause minor impact and or are just warnings that can remain unfixed for now. It would be better to fix these issues atsome point in the future.

➢ INFORMATIONAL

These are severity four issues which indicate an improvement request, a general question, a cosmetic or documentation error, or a request for information. There is low-to-no impact.

ISSUES TABLE

TYPE	HIGH	MEDIUM	LOW	INFORMATIONAL
OPEN	-	-	4	-
ACKNOWLWDGENT	-	-	-	-
CLOSED	-	-	-	-

INTRODUCTION

On 28-06-2023 – Astrobiatech Blockchain Security Team performed asecurity audit for Level UP smart contracts.

CONTRACT NAME	Level UP
CONTRACT ADDRESS	0x66fFD33E0792d5Ee53557A33C9f7cF87D801630C
BLOCKCHAIN	Ethereum
TOTAL SUPPLY	100,000,000,000
SYMBOL	1 UP
DECIMALS	18

OVERVIEW

CONTRACT ADDRESS
0x66fFD33E0792d5Ee53557A33C9f7cF87D801630C

TOKEN TRACKER
Level UP (1 UP)

CONTRACT CREATOR
0x7d075d5C43f8ecbd348C75A507D7FF159d3dAA8c

OWNER ADDRESS
0x7d075d5C43f8ecbd348C75A507D7FF159d3dAA8c

SOURCE CODE
Contract Source Code Verified at Bscscan

CONTRACT NAME
LEVELUP

OTHER SETTINGS
default evmVersion, MIT license

COMPILER VERSION
v0.8.18+commit.87f61d96

OPTIMIZATION ENABLED
Yes with 200 runs

Code is truncated to fit the constraints of this document.
https://etherscan.io/token/0x1893b3ade4be3a47f9d2226efb7a7737ee26d587#code

MANUAL ANALYSIS FINDINGS

LOW

1. Owner can exclude accounts from fees

Description:-

Excludes/Includes an address from the collection of fees

Recommendation:-

It is recommended to add additional access control measures, such as multi-factor authentication or time-based restrictions, to limitthe number of authorized users who can call these functions. The contract owner account is well secured and only accessible by authorized parties.

2. Owner can change fee percentages max 20%

Description:-

Functions that allows the owner of the contractto update the buy/sell fees of the contract. Thesefunctions assumes that the input parameters are valid and do not exceed the maximum limit of 20%.

Recommendation:-

It is recommended to add additional access control measures, such as multi-factor authentication or time-based restrictions, to limitthe number of authorized users who can call these functions. The contract owner account is well secured and only accessible by authorized parties.

3. Owner can change the swap tokens at amount within reasonable limit

Description:-

setSwapTokensAtAmount function allows the owner to set the minimum number of tokens required to trigger an automatic swap.

Recommendation:-

It' s important to ensure that the new swapTokensAtAmount value is reasonable and will not adversely affect the functioning of the token or any associated systems.

4. Owner can withdraw any token(except native token) from the contract

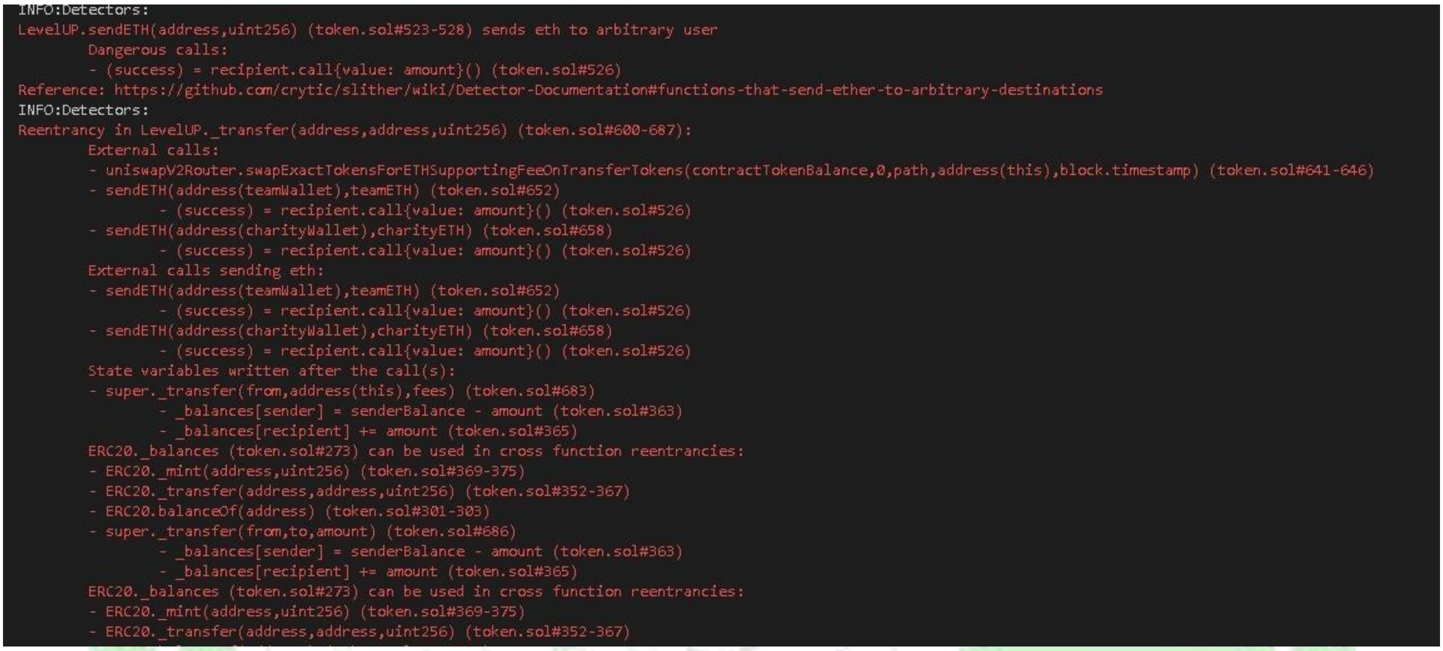
Description:-

claimStuckTokens function allows the contract owner to recover any ERC20 tokens or BNB that were mistakenly sent to the contract' s address. There are require statement to prevent the owner from accidentally claiming the native token.

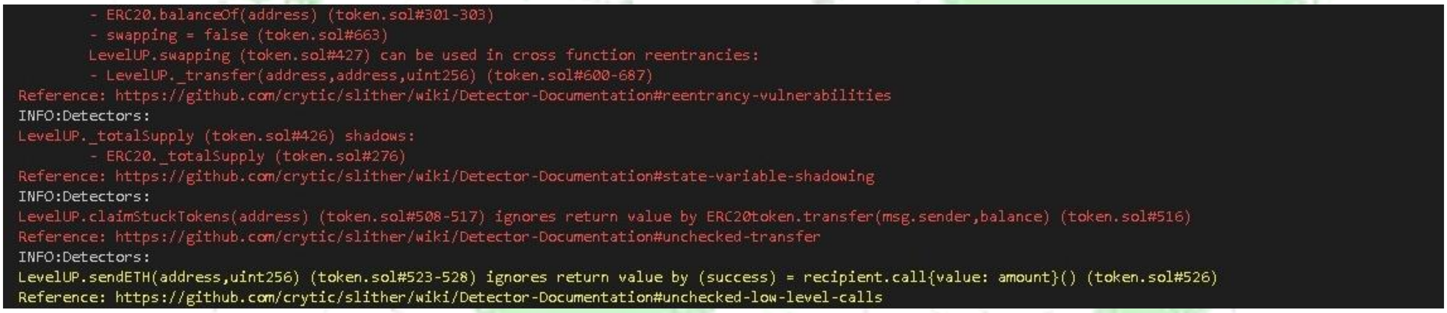
Recommendation:-

It is generally considered safe for a contract owner to claim stuck tokens, but it' s importantto ensure that the owner is not abusing this function to steal tokens. In this implementation,there is a require statement that ensures that the owner cannot claim the native token of theblockchain on which the contract is deployed.

AUTOMATED ANALYSIS

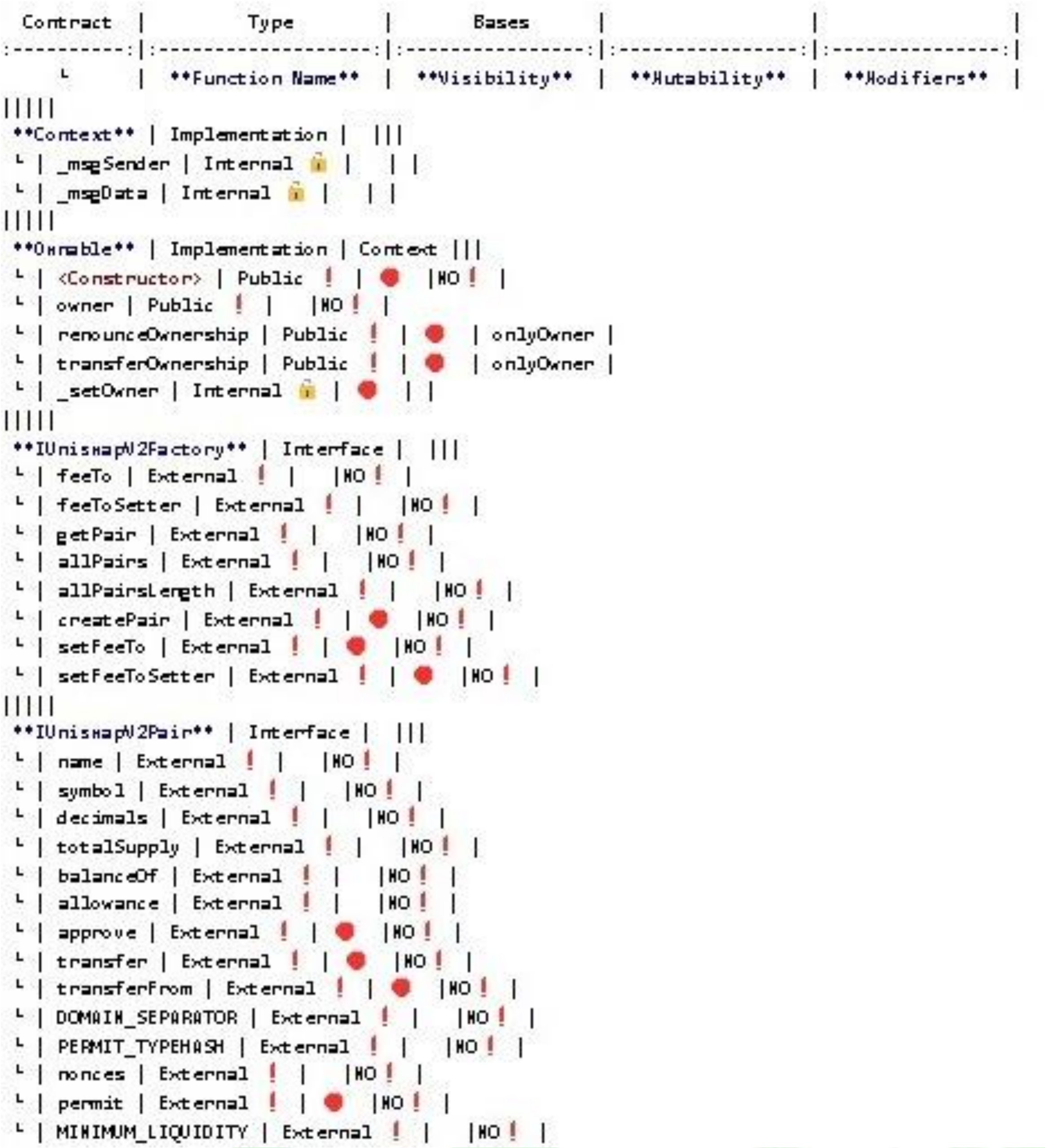


```
INFO:Detectors:
LevelUP.sendETH(address,uint256) (token.sol#523-528) sends eth to arbitrary user
        Dangerous calls:
        - (success) = recipient.call{value: amount}() (token.sol#526)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#functions-that-send-ether-to-arbitrary-destinations
INFO:Detectors:
Reentrancy in LevelUP._transfer(address,address,uint256) (token.sol#600-687):
        External calls:
        - uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(contractTokenBalance,0,path,address(this),block.timestamp) (token.sol#641-646)
        - sendETH(address(teamWallet),teamETH) (token.sol#652)
                - (success) = recipient.call{value: amount}() (token.sol#526)
        - sendETH(address(charityWallet),charityETH) (token.sol#658)
                - (success) = recipient.call{value: amount}() (token.sol#526)
        External calls sending eth:
        - sendETH(address(teamWallet),teamETH) (token.sol#652)
                - (success) = recipient.call{value: amount}() (token.sol#526)
        - sendETH(address(charityWallet),charityETH) (token.sol#658)
                - (success) = recipient.call{value: amount}() (token.sol#526)
        State variables written after the call(s):
        - super._transfer(from,address(this),fees) (token.sol#683)
                - _balances[sender] = senderBalance - amount (token.sol#363)
                - _balances[recipient] += amount (token.sol#365)
        ERC20._balances (token.sol#273) can be used in cross function reentrancies:
        - ERC20._mint(address,uint256) (token.sol#369-375)
        - ERC20._transfer(address,address,uint256) (token.sol#352-367)
        - ERC20.balanceOf(address) (token.sol#301-303)
        - super._transfer(from,to,amount) (token.sol#686)
                - _balances[sender] = senderBalance - amount (token.sol#363)
                - _balances[recipient] += amount (token.sol#365)
        ERC20._balances (token.sol#273) can be used in cross function reentrancies:
        - ERC20._mint(address,uint256) (token.sol#369-375)
        - ERC20._transfer(address,address,uint256) (token.sol#352-367)
```

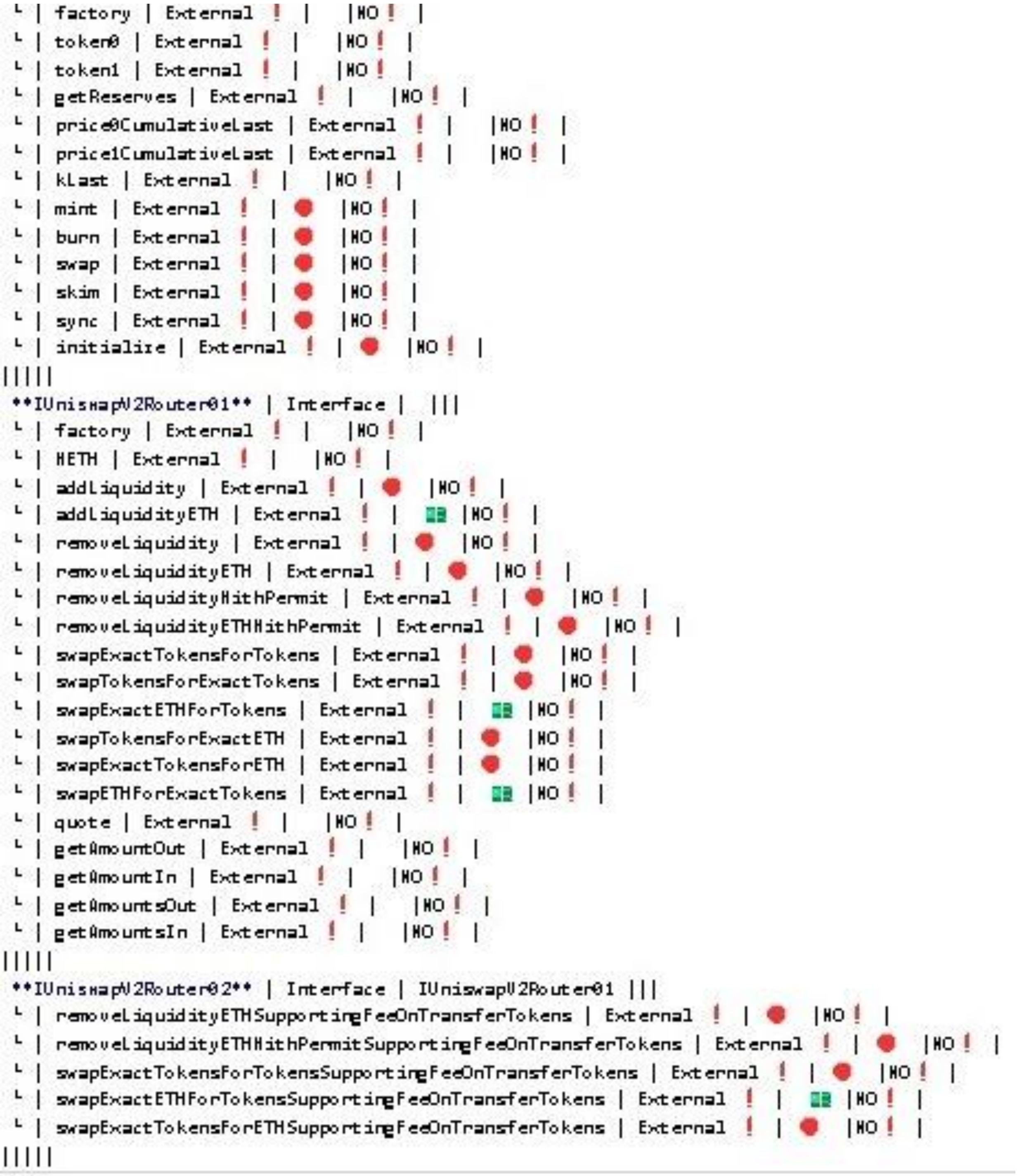


```
        - ERC20.balanceOf(address) (token.sol#301-303)
        - swapping = false (token.sol#663)
        LevelUP.swapping (token.sol#427) can be used in cross function reentrancies:
        - LevelUP._transfer(address,address,uint256) (token.sol#600-687)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities
INFO:Detectors:
LevelUP._totalSupply (token.sol#426) shadows:
        - ERC20._totalSupply (token.sol#276)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variable-shadowing
INFO:Detectors:
LevelUP.claimStuckTokens(address) (token.sol#508-517) ignores return value by ERC20token.transfer(msg.sender,balance) (token.sol#516)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unchecked-transfer
INFO:Detectors:
LevelUP.sendETH(address,uint256) (token.sol#523-528) ignores return value by (success) = recipient.call{value: amount}() (token.sol#526)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unchecked-low-level-calls
```

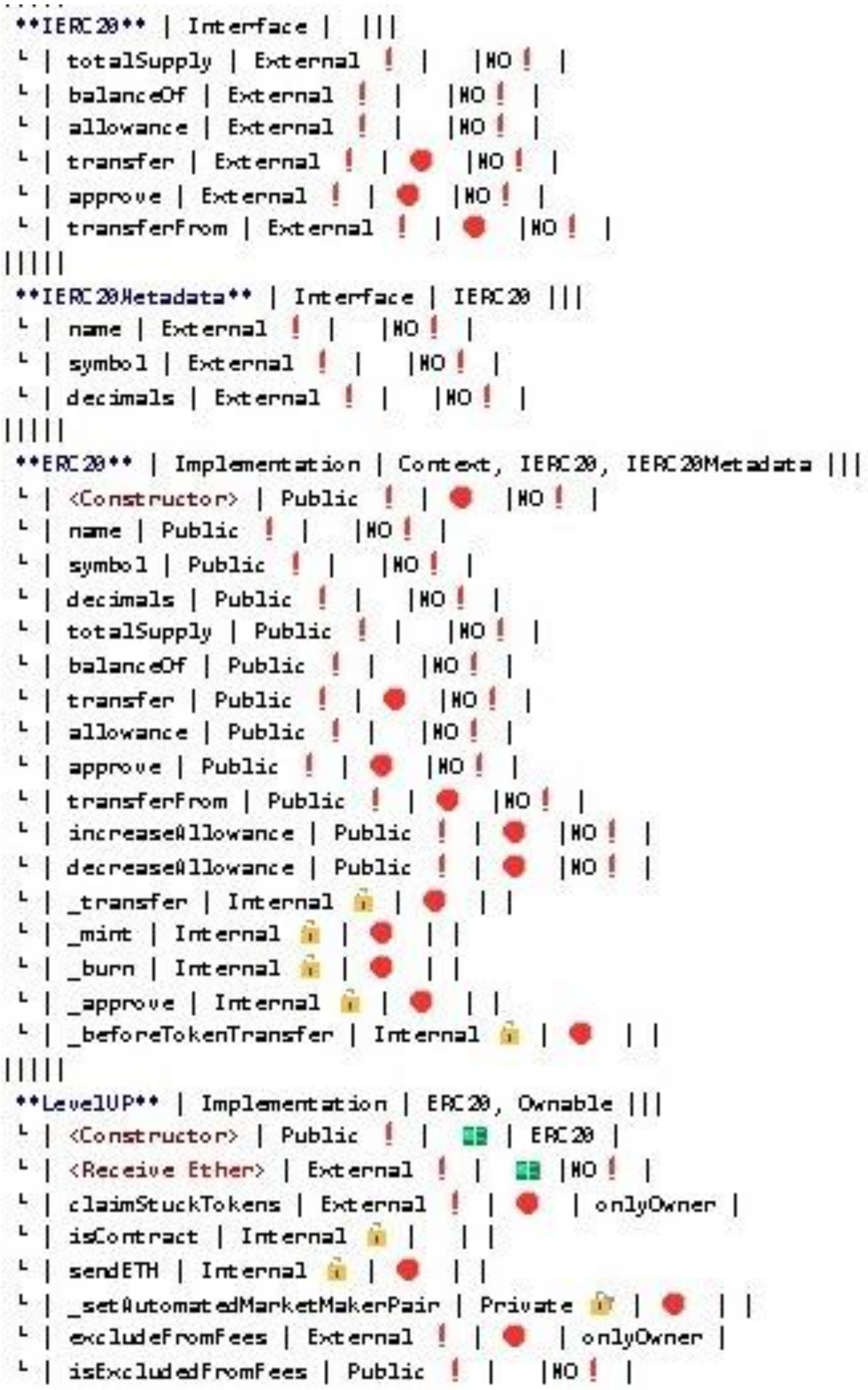
FUNCTIONAL TEST



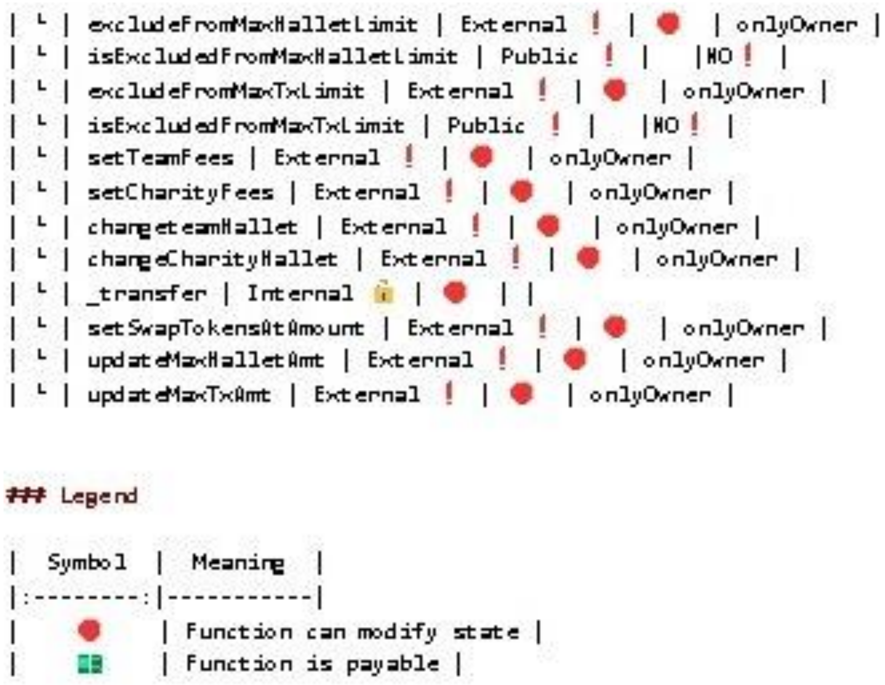
```
 Contract  |        Type        |       Bases      |                  |                 |
:----------:|:-------------------:|:----------------:|:----------------:|:---------------:|
     └      |  **Function Name**  |  **Visibility**  |  **Mutability**  |  **Modifiers**  |
|||||
**Context** | Implementation |  |||
└ | _msgSender | Internal 🔒 |   | |
└ | _msgData | Internal 🔒 |   | |
|||||
**Ownable** | Implementation | Context |||
└ | <Constructor> | Public ❗ | 🛑  |NO❗ |
└ | owner | Public ❗ |   |NO❗ |
└ | renounceOwnership | Public ❗ | 🛑  | onlyOwner |
└ | transferOwnership | Public ❗ | 🛑  | onlyOwner |
└ | _setOwner | Internal 🔒 | 🛑  | |
|||||
**IUniswapV2Factory** | Interface |  |||
└ | feeTo | External ❗ |   |NO❗ |
└ | feeToSetter | External ❗ |   |NO❗ |
└ | getPair | External ❗ |   |NO❗ |
└ | allPairs | External ❗ |   |NO❗ |
└ | allPairsLength | External ❗ |   |NO❗ |
└ | createPair | External ❗ | 🛑  |NO❗ |
└ | setFeeTo | External ❗ | 🛑  |NO❗ |
└ | setFeeToSetter | External ❗ | 🛑  |NO❗ |
|||||
**IUniswapV2Pair** | Interface |  |||
└ | name | External ❗ |   |NO❗ |
└ | symbol | External ❗ |   |NO❗ |
└ | decimals | External ❗ |   |NO❗ |
└ | totalSupply | External ❗ |   |NO❗ |
└ | balanceOf | External ❗ |   |NO❗ |
└ | allowance | External ❗ |   |NO❗ |
└ | approve | External ❗ | 🛑  |NO❗ |
└ | transfer | External ❗ | 🛑  |NO❗ |
└ | transferFrom | External ❗ | 🛑  |NO❗ |
└ | DOMAIN_SEPARATOR | External ❗ |   |NO❗ |
└ | PERMIT_TYPEHASH | External ❗ |   |NO❗ |
└ | nonces | External ❗ |   |NO❗ |
└ | permit | External ❗ | 🛑  |NO❗ |
└ | MINIMUM_LIQUIDITY | External ❗ |   |NO❗ |
```



```
└ | factory | External ❗ |  |NO ❗ |
└ | token0 | External ❗ |  |NO ❗ |
└ | token1 | External ❗ |  |NO ❗ |
└ | getReserves | External ❗ |  |NO ❗ |
└ | price0CumulativeLast | External ❗ |  |NO ❗ |
└ | price1CumulativeLast | External ❗ |  |NO ❗ |
└ | kLast | External ❗ |  |NO ❗ |
└ | mint | External ❗ | ● |NO ❗ |
└ | burn | External ❗ | ● |NO ❗ |
└ | swap | External ❗ | ● |NO ❗ |
└ | skim | External ❗ | ● |NO ❗ |
└ | sync | External ❗ | ● |NO ❗ |
└ | initialize | External ❗ | ● |NO ❗ |
|||||
**IUniswapV2Router01** | Interface |  |||
└ | factory | External ❗ |  |NO ❗ |
└ | WETH | External ❗ |  |NO ❗ |
└ | addLiquidity | External ❗ | ● |NO ❗ |
└ | addLiquidityETH | External ❗ | 💵 |NO ❗ |
└ | removeLiquidity | External ❗ | ● |NO ❗ |
└ | removeLiquidityETH | External ❗ | ● |NO ❗ |
└ | removeLiquidityWithPermit | External ❗ | ● |NO ❗ |
└ | removeLiquidityETHWithPermit | External ❗ | ● |NO ❗ |
└ | swapExactTokensForTokens | External ❗ | ● |NO ❗ |
└ | swapTokensForExactTokens | External ❗ | ● |NO ❗ |
└ | swapExactETHForTokens | External ❗ | 💵 |NO ❗ |
└ | swapTokensForExactETH | External ❗ | ● |NO ❗ |
└ | swapExactTokensForETH | External ❗ | ● |NO ❗ |
└ | swapETHForExactTokens | External ❗ | 💵 |NO ❗ |
└ | quote | External ❗ |  |NO ❗ |
└ | getAmountOut | External ❗ |  |NO ❗ |
└ | getAmountIn | External ❗ |  |NO ❗ |
└ | getAmountsOut | External ❗ |  |NO ❗ |
└ | getAmountsIn | External ❗ |  |NO ❗ |
|||||
**IUniswapV2Router02** | Interface | IUniswapV2Router01 |||
└ | removeLiquidityETHSupportingFeeOnTransferTokens | External ❗ | ● |NO ❗ |
└ | removeLiquidityETHWithPermitSupportingFeeOnTransferTokens | External ❗ | ● |NO ❗ |
└ | swapExactTokensForTokensSupportingFeeOnTransferTokens | External ❗ | ● |NO ❗ |
└ | swapExactETHForTokensSupportingFeeOnTransferTokens | External ❗ | 💵 |NO ❗ |
└ | swapExactTokensForETHSupportingFeeOnTransferTokens | External ❗ | ● |NO ❗ |
|||||
```



```
**IERC20** | Interface |  |||
└ | totalSupply | External ❗ |   |NO❗ |
└ | balanceOf | External ❗ |   |NO❗ |
└ | allowance | External ❗ |   |NO❗ |
└ | transfer | External ❗ | 🛑  |NO❗ |
└ | approve | External ❗ | 🛑  |NO❗ |
└ | transferFrom | External ❗ | 🛑  |NO❗ |
|||||
**IERC20Metadata** | Interface | IERC20 |||
└ | name | External ❗ |   |NO❗ |
└ | symbol | External ❗ |   |NO❗ |
└ | decimals | External ❗ |   |NO❗ |
|||||
**ERC20** | Implementation | Context, IERC20, IERC20Metadata |||
└ | <Constructor> | Public ❗ | 🛑  |NO❗ |
└ | name | Public ❗ |   |NO❗ |
└ | symbol | Public ❗ |   |NO❗ |
└ | decimals | Public ❗ |   |NO❗ |
└ | totalSupply | Public ❗ |   |NO❗ |
└ | balanceOf | Public ❗ |   |NO❗ |
└ | transfer | Public ❗ | 🛑  |NO❗ |
└ | allowance | Public ❗ |   |NO❗ |
└ | approve | Public ❗ | 🛑  |NO❗ |
└ | transferFrom | Public ❗ | 🛑  |NO❗ |
└ | increaseAllowance | Public ❗ | 🛑  |NO❗ |
└ | decreaseAllowance | Public ❗ | 🛑  |NO❗ |
└ | _transfer | Internal 🔒 | 🛑  | |
└ | _mint | Internal 🔒 | 🛑  | |
└ | _burn | Internal 🔒 | 🛑  | |
└ | _approve | Internal 🔒 | 🛑  | |
└ | _beforeTokenTransfer | Internal 🔒 | 🛑  | |
|||||
**LevelUP** | Implementation | ERC20, Ownable |||
└ | <Constructor> | Public ❗ |  💵 | ERC20 |
└ | <Receive Ether> | External ❗ |  💵 |NO❗ |
└ | claimStuckTokens | External ❗ | 🛑  | onlyOwner |
└ | isContract | Internal 🔒 |   | |
└ | sendETH | Internal 🔒 | 🛑  | |
└ | _setAutomatedMarketMakerPair | Private 🔐 | 🛑  | |
└ | excludeFromFees | External ❗ | 🛑  | onlyOwner |
└ | isExcludedFromFees | Public ❗ |   |NO❗ |
```



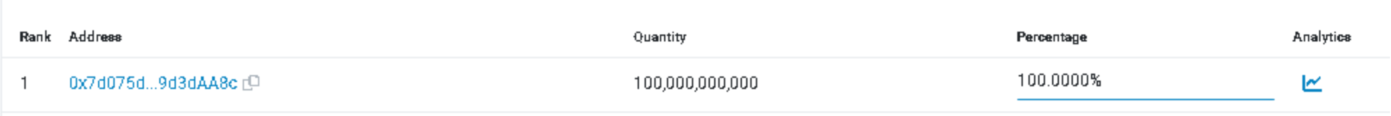
```
| └ | excludeFromMaxWalletLimit | External ❗️ | 🛑  | onlyOwner |
| └ | isExcludedFromMaxWalletLimit | Public ❗️ |   |NO❗️ |
| └ | excludeFromMaxTxLimit | External ❗️ | 🛑  | onlyOwner |
| └ | isExcludedFromMaxTxLimit | Public ❗️ |   |NO❗️ |
| └ | setTeamFees | External ❗️ | 🛑  | onlyOwner |
| └ | setCharityFees | External ❗️ | 🛑  | onlyOwner |
| └ | changeteamWallet | External ❗️ | 🛑  | onlyOwner |
| └ | changeCharityWallet | External ❗️ | 🛑  | onlyOwner |
| └ | _transfer | Internal 🔒 | 🛑  | |
| └ | setSwapTokensAtAmount | External ❗️ | 🛑  | onlyOwner |
| └ | updateMaxWalletAmt | External ❗️ | 🛑  | onlyOwner |
| └ | updateMaxTxAmt | External ❗️ | 🛑  | onlyOwner |


### Legend

|  Symbol  |  Meaning  |
|:--------:|-----------|
|    🛑    | Function can modify state |
|    💵    | Function is payable |
```

FEES

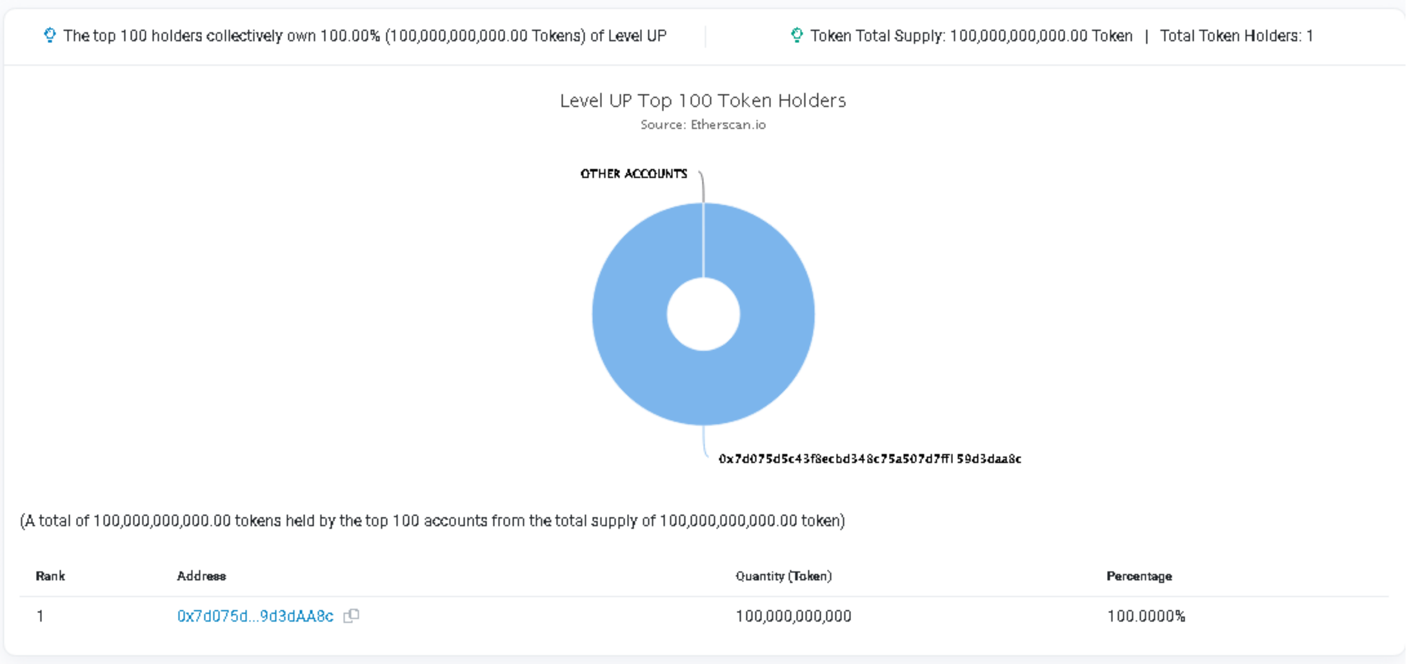
BUY FEES	8%
Charity	2%
Team	6%

SELL FEES	8%
Charity	2%
Team	6%

HOLDERS



Rank	Address	Quantity	Percentage	Analytics
1	0x7d075d...9d3dAA8c	100,000,000,000	100.0000%	



The top 100 holders collectively own 100.00% (100,000,000,000.00 Tokens) of Level UP

Token Total Supply: 100,000,000,000.00 Token | Total Token Holders: 1

Level UP Top 100 Token Holders

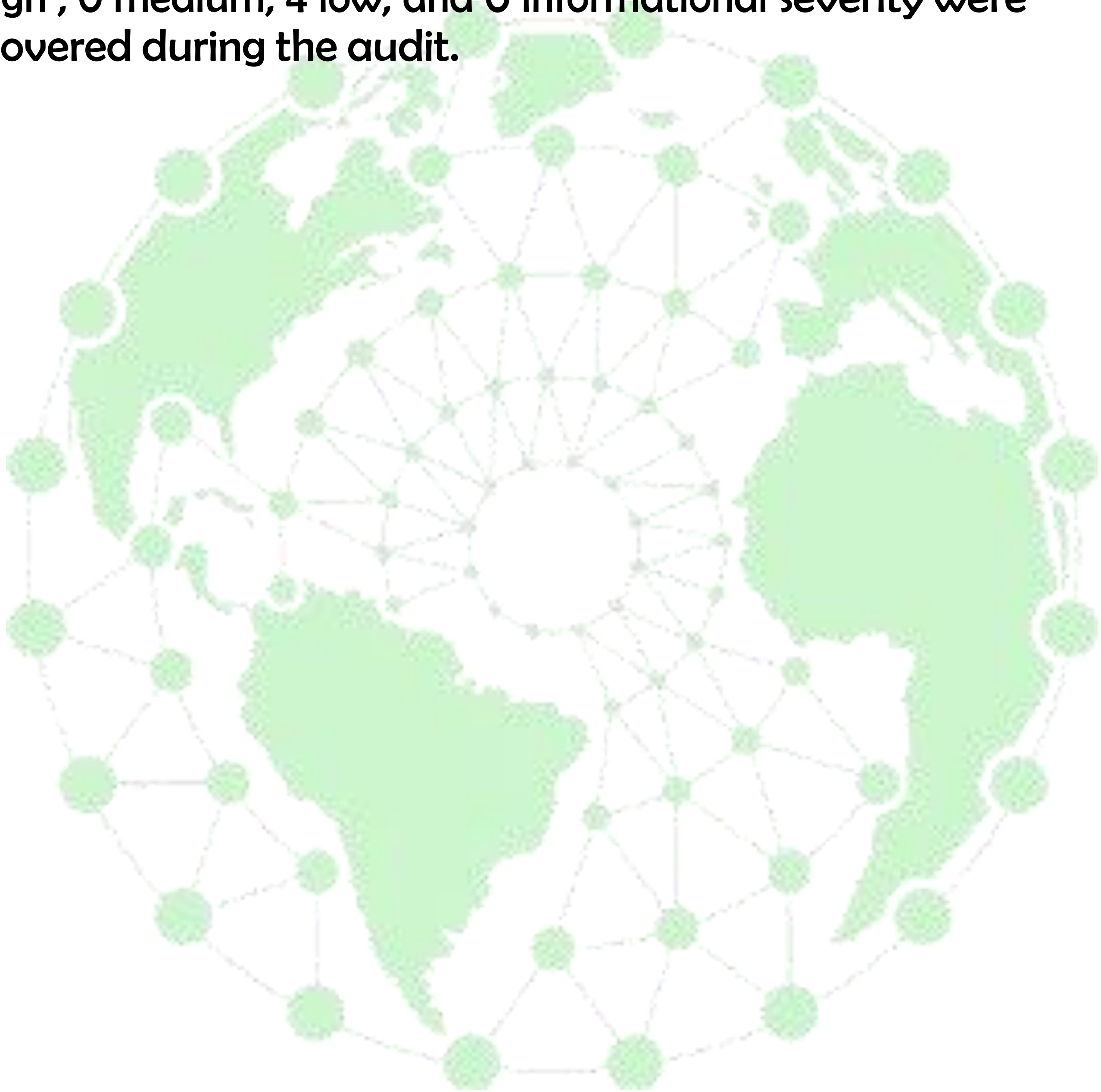
Source: Etherscan.io

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

Rank	Address	Quantity (Token)	Percentage
1	0x7d075d...9d3dAA8c	100,000,000,000	100.0000%

SUMMARY

In this report, we have considered the security of the LEVEL UP platform. We performed our audit according to the procedure described above. 0 high , 0 medium, 4 low, and 0 informational severity were discovered during the audit.



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LEVEL UP

Proofed by Astrobiatech

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BLOCKCHAIN SECURITY

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