



Full Audit report

MyFriendParrot Security Assessment







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Report Information

About Report	MyFriendParrot Security Assessment
Version	v1.1
Client	MyFriendParrot
Language	Solidity
Confidentiality	Public
Platform	BNB Chain (Previously Binance Smart Chain)
Contract Address	<u>0xa7CF4F442970902b3190168f24b33e3c14E1CdB0</u>
Audit Method	Whitebox

*Audit Method

Whitebox: Securi Team receives all source code from the client to provide the assessment. Securi Team receives only bytecode from the client to provide the assessment.

Digital Sign (Only Full Audit Report)



Disclaimer

Regarding this security assessment, there are no guarantees about the security of the program instruction received from the client is hereinafter referred to as "Source code".

And **SECURI** hereinafter referred to as "**Service Provider**", the **Service Provider** will not be held liable for any legal liability arising from errors in the security assessment. The responsibility will be the responsibility of the **client**, hereinafter referred to as "**Service User**" and the **service user** agrees not to be held liable to the **service provider** in any case. By contract **service provider** to conduct security assessments with integrity with professional ethics, and transparency to deliver security assessments to users The **service provider** has the right to postpone the delivery of the security assessment. If the security assessment is delayed whether caused by any reason and is not responsible for any delayed security assessments. If **the service provider** finds a vulnerability The **service provider** will notify the **service user** via the Preliminary Report, which will be kept confidential for security. The **service provider** disclaims responsibility in the event of any attacks occurring whether before conducting a security assessment. Or happened later All responsibility shall be sole with the **service user**.

Security Assessment Not Financial/Investment Advice Any loss arising from any investment in any project is the responsibility of the investor.

SECURI disclaims any liability incurred. Whether it's Rugpull, Abandonment, Soft Rugpull





Executive Summary

For this security assessment, Securi received a request from MyFriendParrot on Tuesday, August 30, 2022.

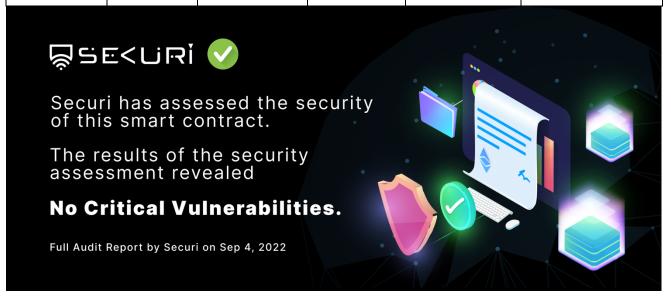
The Securi team has conducted a comprehensive security assessment of the vulnerabilities. This assessment is tested with an expert assessment. Using the following test requirements

- 1. Smart Contract Testing with Expert Analysis By testing the most common and uncommon vulnerabilities.
- 2. Automated program testing It includes a sample vulnerability test and a sample of the potential vulnerabilities being used for the most frequent attacks.
- 3. Visibility, Mutability, Modifier function testing, such as whether a function can be seen in general, or whether a function can be changed and if so, who can change it.
- 4. Function association test It will be displayed through the association graph.
- 5. This safety assessment is cross-checked prior to the delivery of the assessment results.

Audit Result

Securi evaluated the smart contract security of the Example project and found:

Critical	High	Medium	Low	Very Low	Informational
0	3	0	3	0	4





Project Introduction Scope Information:

Project Name	MyFriendParrot
Website	https://www.myfriendparrot.com/
Chain	BNB Chain (Previously Binance Smart Chain)
Language	Solidity

Audit Information:

Request Date	Tuesday, August 30, 2022
Audit Date	Wednesday, August 31, 2022

Audit Version History:

Version	Date	Description
1.0	Wednesday, August 31, 2022	Preliminary Report
1.1	Sunday, September 4, 2022	Full Audit Report





Initial Audit Scope: Contract: doi: 0.xa7CF4F442970902b3190168f24b33e3c14E1CdB0

Smart Contract	<u>0xa7CF4F442970902b3190168f24b33e3c14E1CdB0</u>
Contract Name	MyFriendParrotToken
Compiler Version	v0.6.12+commit.27d51765





Security Assessment Procedure

Securi has the following procedures and regulations for conducting security assessments:

- **1.Request Audit** Client submits a form request through the Securi channel. After receiving the request, Securi will discuss a security assessment. And drafting a contract and agreeing to sign a contract together with the Client
- **2.Auditing** Securi performs security assessments of smart contracts obtained through automated analysis and expert manual audits.
- **3.Preliminary Report** At this stage, Securi will deliver an initial security assessment. To report on vulnerabilities and errors found under Audit Scope will not publish preliminary reports for safety.
- **4.Reassessment** After Securi has delivered the Preliminary Report to the Client, Securi will track the status of the vulnerability or error, which will be published to the Final Report at a later date with the following statuses:
 - **a.Acknowledge** The client has been informed about errors or vulnerabilities from the security assessment.
 - **b.Resolved** The client has resolved the error or vulnerability. Resolved is probably just a commit, and Securi is unable to verify that the resolved has been implemented or not.
- **c.Decline** Client has rejected the results of the security assessment on the issue.
- **5.Final Report** Securi providing full security assessment report and public





Risk Rating

Risk rating using this commonly defined: $Risk \ rating = impact * confidence$

Impact The severity and potential impact of an attacker attack

Confidence Ensuring that attackers expose and use this vulnerability

Both have a total of 3 levels: **High, Medium, Low**. By *Informational* will not be classified as a

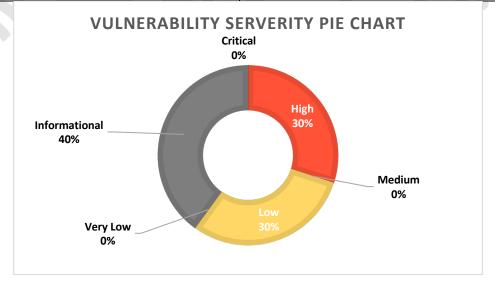
Confidence Impact	Low	Medium	High
Low	Very Low	Low	Medium
Medium	Low	Medium	High
High	Medium	High	Critical

Severity is a risk assessment It is calculated from the Impact and Confidence values using the following calculation methods, $Risk\ rating = impact * confidence$ It is categorized into **5 categories based** on the **lowest severity**: Very Low, Low, Medium, High, Critical. For **Informational** will not be counted as **severity**



Vulnerability Severity Summary

Vulnerability Severity Level	Total
Critical	0
High	3
Medium	0
Low	3
Very Low	0
Informational (Non severity level)	4





Vulnerability Findings

ID	Title	Severity	Status
SEC-01	setBuyBackPercent fees are not limited	High	Acknowledge
SEC-02	setBurnFeePercent fees are not limited	High	Acknowledge
SEC-03	setMaxTxPercent no minimum input data	High	Acknowledge
SEC-04	Unused return values (unused-return)	LOW	Acknowledge
SEC-05	Missing Zero Address Validation (missing- zero-check)	LOW	Acknowledge
SEC-06	Missing Events Arithmetic (events-maths)	LOW	Acknowledge
SEC-07	Function initializing state variables (function-init-state)	Informational	Acknowledge
SEC-08	Costly operations in a loop (costly-loop)	Informational	Acknowledge
SEC-09	Conformance to numeric notation best practices (too-many-digits)	Informational	Acknowledge
SWC-102	Outdated Compiler Version	Informational	Acknowledge



SEC-01: setBuyBackPercent fees are not limited

Туре	Severity	Location	Status
setBuyBackPercent fees are not limited	High	-	Acknowledge

Description:

The owner can use this function to take 100% of the transfer amount to the buyback address

Recommendation:

Add requirements for input data in function setBuyBackPercent

Alleviation:

MyFriendParrot Team has acknowledge this issues.



SEC-02: setBurnFeePercent fees are not limited

Туре	Severity	Location	Status
setBurnFeePercent fees are not limited	High	-	Acknowledge

Finding:

The owner can use this function to take 100% of the transfer amount to burn token

Recommendation:

Add requirements for input data in function setBurnFeePercent

Alleviation:

MyFriendParrot Team has acknowledge this issues.



SEC-03: setMaxTxPercent input data are no minimum

Туре	Severity	Location	Status
setMaxTxPercent no minimum input data	High	-	Acknowledge

Finding:

The owner can set max transaction percent to zero which would block all transfers except the owner

Recommendation:

Add requirements for input data in function setMaxTxPercent

Alleviation:

MyFriendParrot Team has acknowledge this issues.



SEC-04: Unused return values (unused-return)

Туре	Severity	Location	Status
Unused return values (unused-return)	Low	Line: 1045-1058	Acknowledge

Finding:

MyFriendParrotToken.addBurn(uint256,uint256) (MyFriendParrotToken.sol:1045-1058) ignores return value by uniswapV2Router.addBurnETH{value: ethAmount}(address(this),tokenAmount,0,0,owner(),block.timestamp) (MyFriendParrotToken.sol#1050-1057)

Recommendation:

Ensure that all the return values of the function calls are used.

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-return

Alleviation:

MyFriendParrot Team has acknowledge this issues.





SEC-05: Missing Zero Address Validation (missing-zero-check)

Туре	Severity	Location	Status
Missing Zero Address Validation (missing-zero-check)	Low	Line: 941	Acknowledge

Finding:

X MyFriendParrotToken.setAsBuyBackAccount(address).account

(MyFriendParrotToken.sol:941) lacks a zero-check on:

buyBackAddress = account (MyFriendParrotToken.sol#942)

Recommendation:

Check that the address is not zero.

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

Alleviation:

MyFriendParrot Team has acknowledge this issues.



SEC-06: Missing Events Arithmetic (events-maths)

Туре	Severity	Location	Status
Missing Events Arithmetic (events-maths)	Low	Line: Check On Finding	Acknowledge

Finding:

MyFriendParrotToken.setBurnFeePercent(uint256) (MyFriendParrotToken.sol:834-836) should emit an event for:

- burnFee = burnFee (MyFriendParrotToken.sol#835)
- MyFriendParrotToken.setBuyBackPercent(uint256) (MyFriendParrotToken.sol:830-832) should emit an event for:
 - buyBack = buyBack (MyFriendParrotToken.sol#831)
- MyFriendParrotToken.setMaxTxPercent(uint256) (MyFriendParrotToken.sol:838-842) should emit an event for:
- _maxTxAmount = _tTotal.mul(maxTxPercent).div(10 ** 2) (MyFriendParrotToken.sol#839-841)

Recommendation:

Emit an event for critical parameter changes.

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-events-arithmetic

Alleviation:

MyFriendParrot Team has acknowledge this issues.



SEC-07: Function initializing state variables (function-init-state)

Туре	Severity	Location	Status
Function initializing state variables (function-init-state)	Informational	Line: Check On Finding	Acknowledge

Finding:

- MyFriendParrotToken._previousBurnFee (MyFriendParrotToken.sol:669) is set preconstruction with a non-constant function or state variable:
- burnFee
- ➤ MyFriendParrotToken._previousBuyBack (MyFriendParrotToken.sol:666) is set preconstruction with a non-constant function or state variable:
- buyBack
- X MyFriendParrotToken._rTotal (MyFriendParrotToken.sol:658) is set pre-construction with a non-constant function or state variable:
- (MAX (MAX % tTotal))

Recommendation:

Remove any initialization of state variables via non-constant state variables or function calls. If variables must be set upon contract deployment, locate initialization in the constructor instead.

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#function-initializing-state

Alleviation:

MyFriendParrot Team has acknowledge this issues.



SEC-08: Costly operations in a loop (costly-loop)

Туре	Severity	Location	Status
Costly operations in a loop (costly-loop)	Informational	Line: 809-820	Acknowledge

Finding:

MyFriendParrotToken.includeInReward(address) (MyFriendParrotToken.sol:809-820) has costly operations inside a loop:

• _excluded.pop() (MyFriendParrotToken.sol#816)

Recommendation:

Use a local variable to hold the loop computation result.

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#costly-operations-inside-a-loop

Alleviation:

MyFriendParrot Team has acknowledge this issues.



SEC-09: Conformance to numeric notation best practices

Туре	Severity	Location	Status
Conformance to numeric notation best practices (too-many-digits)	Informational	Line: Check On Finding	Acknowledge

Finding:

- MyFriendParrotToken.slitherConstructorVariables() (MyFriendParrotToken.sol:643-1121) uses literals with too many digits:
- maxTxAmount = 9000000000 * 10 ** 7 (MyFriendParrotToken.sol#678)
- ➤ MyFriendParrotToken.slitherConstructorVariables() (MyFriendParrotToken.sol:643-1121) uses literals with too many digits:
- _tTotal = 9000000000 * 10 ** 7 (MyFriendParrotToken.sol#657)
- MyFriendParrotToken.slitherConstructorVariables() (MyFriendParrotToken.sol:643-1121) uses literals with too many digits:
- numTokensSellToAddToBurn = 500000 * 10 ** 7 (MyFriendParrotToken.sol#679)

Recommendation:

Use:

- [Ether suffix](https://solidity.readthedocs.io/en/latest/units-and-global-variables.html#ether-units),
- [Time suffix](https://solidity.readthedocs.io/en/latest/units-and-global-variables.html#time-units), or
- [The scientific notation](https://solidity.readthedocs.io/en/latest/types.html#rational-and-integer-literals)

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#too-many-digits

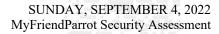
Alleviation:

MyFriendParrot Team has acknowledge this issues.



SWC Findings

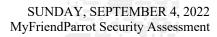
ID	Title	Scanning	Result
SWC-100	Function Default Visibility	Complete	No risk
SWC-101	Integer Overflow and Underflow	Complete	No risk
SWC-102	Outdated Compiler Version	Complete	Informational
SWC-103	Floating Pragma	Complete	No risk
SWC-104	Unchecked Call Return Value	Complete	No risk
SWC-105	Unprotected Ether Withdrawal	Complete	No risk
SWC-106	Unprotected SELFDESTRUCT Instruction	Complete	_No risk
SWC-107	Reentrancy	Complete	No risk
SWC-108	State Variable Default Visibility	Complete	No risk
SWC-109	Uninitialized Storage Pointer	Complete	No risk
SWC-110	Assert Violation	Complete	No risk
SWC-111	Use of Deprecated Solidity Functions	Complete	No risk
SWC-112	Delegatecall to Untrusted Callee	Complete	No risk
SWC-113	DoS with Failed Call	Complete	No risk
SWC-114	Transaction Order Dependence	Complete	No risk





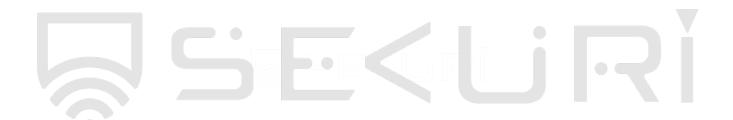
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SWC-115	Authorization through tx.origin	Complete	No risk
SWC-116	Block values as a proxy for time	Complete	No risk
SWC-117	Signature Malleability	Complete	No risk
SWC-118	Incorrect Constructor Name	Complete	No risk
SWC-119	Shadowing State Variables	Complete	No risk
SWC-120	Weak Sources of Randomness from Chain Attributes	Complete	No risk
SWC-121	Missing Protection against Signature Replay Attacks	Complete	No risk
SWC-122	Lack of Proper Signature Verification	Complete	No risk
SWC-123	Requirement Violation	Complete	No risk
SWC-124	Write to Arbitrary Storage Location	Complete	No risk
SWC-125	Incorrect Inheritance Order	Complete	No risk
SWC-126	Insufficient Gas Griefing	Complete	No risk
SWC-127	Arbitrary Jump with Function Type Variable	Complete	No risk
SWC-128	DoS With Block Gas Limit	Complete	No risk
SWC-129	Typographical Error	Complete	No risk
SWC-130	Right-To-Left-Override control character (U+202E)	Complete	No risk







SWC-131	Presence of unused variables	Complete	No risk
SWC-132	Unexpected Ether balance	Complete	No risk
SWC-133	Hash Collisions With Multiple Variable Length Arguments	Complete	No risk
SWC-134	Message call with hardcoded gas amount	Complete	No risk
SWC-135	Code With No Effects	Complete	No risk
SWC-136	Unencrypted Private Data On-Chain	Complete	No risk





Visibility, Mutability, Modifier function testing

```
Contracts Description Table
  Contract | Type | Bases
    | **Function Name** | **Visibility** | **Mutability** |
**Modifiers** |
**IERC20** | Interface | |||
 L | totalSupply | External | | | NO! |
 L | balanceOf | External | | NO! |
 L | transfer | External | |
 L | allowance | External | |
                            |NO | |
 L | approve | External | | 🛑 | NO! |
 👢 | transferFrom | External 👢 | 🥮 |NO 👢 |
 **SafeMath** | Library |
 └ | add | Internal 🖷 |
 L | sub | Internal 🗎 |
 └ | sub | Internal 🔒 |
 L | mul | Internal 🗎 |
 L | div | Internal 🗎 |
 L | div | Internal 🗎 |
 └ | mod | Internal 🔒 |
 L | mod | Internal 🗎 |
\Pi\Pi\Pi\Pi
 **Context** | Implementation | |||
 ^{\mathsf{L}} | _msgSender | Internal ^{\mathsf{m}} | | |
**Address** | Library | |||
 👢 | sendValue | Internal 🛍 | 🥌
 └ | functionCall | Internal 🗎 |
     functionCall | Internal
```



```
L | functionCallWithValue | Internal 🗎 | 🥌
  L | functionCallWithValue | Internal 🗎 | 🥌
   | _functionCallWithValue | Private 😭 | 🥌
 **Ownable** | Implementation | Context |||
  └ | <Constructor> | Internal 🔒 | 🥌
  L | owner | Public ! |
                           |N0 |
  L | renounceOwnership | Public
                                        | onlyOwner |
  👢 | transferOwnership | Public 👢 | 🥌
                                         | onlyOwner |
  L | geUnlockTime | Public ! |
                                  |N0 | |
  L | lock | Public | | 🛑 | onlyOwner |
  L | unlock | Public | | 🛑 |NO! |
 **IUniswapV2Factory** | Interface | |||
  L | feeTo | External | |
                             |NO ! |
  L | feeToSetter | External | |
                                   |NO |
  L | getPair | External | |
                               |NO | |
  L | allPairs | External | | NO! |
   | allPairsLength | External | |
  L | createPair | External | | 🛑 |NO! |
   | setFeeTo | External 👢 | 🛑
                                  |N0 |
   | setFeeToSetter | External | | 🛑
                                       |NO | |
\Pi\Pi\Pi\Pi
 **IUniswapV2Pair** | Interface | |||
   | name | External ! |
                            |NO | |
   | symbol | External !
                              |N0 !
  L | decimals | External ! |
                                |N0 | |
   | totalSupply | External
  L | balanceOf | External
                                 |N0
   | allowance | External |
                                 |N0 |
  L | approve | External | | 🛑
                                 |N0 |
   | transfer | External 📘 | 🥌
                                  |N0 !
  📙 | transferFrom | External 📒 | 🥮
                                      |N0
   | DOMAIN_SEPARATOR | External | |
                                        |N0 | |
   | PERMIT TYPEHASH | External | |
                                       |NO | |
   | nonces | External |
                              |N0
     permit | External
                                |N0 |
     MINIMUM LIQUIDITY | External
```





```
| factory | External !
                               |N0 !
    | token0 | External
                              |N0
    | token1 | External | |
                              IN0
   | getReserves | External
                                   INO !
   | price0CumulativeLast | External
                                            |N0 |
   | price1CumulativeLast | External
                                            INO !
   | kLast | External
                             |N0 |
   | mint | External
                              IN0
   | burn | External
                              IN0
   | swap | External
                              INO 
   | skim | External
                              |N0
   | sync | External
                              IN0
  L | initialize | External | | 🛑
**IUniswapV2Router01** | Interface | |||
   | factory | External | |
                               |N0 |
   | WETH | External ! |
                            |N0 |
   | addBurn | External 📒 | 🥌
                                 |NO | |
   | addBurnETH | External
                                 ■ INO
   | removeBurn | External
   | removeBurnETH | External
   | removeBurnWithPermit | External |
    | removeBurnETHWithPermit | External |
                                                 INO !
   | swapExactTokensForTokens | External
                                                  IN0
   | swapTokensForExactTokens | External
   | swapExactETHForTokens | External
                                               IN0
  L | swapTokensForExactETH | External
                                               |N0
   | swapExactTokensForETH | External
                                               IN0
  L | swapETHForExactTokens | External
   | quote | External ! |
                             |N0 |
  L | getAmountOut | External ! |
                                    |N0
   | getAmountIn | External | |
                                   |NO |
   | getAmountsOut | External | |
                                     |N0 | |
  L | getAmountsIn | External ! |
                                    |NO ! |
 **IUniswapV2Router02** | Interface | IUniswapV2Router01 |||
     removeBurnETHSupportingFeeOnTransferTokens | External
      removeBurnETHWithPermitSupportingFeeOnTransferTokens | External
```



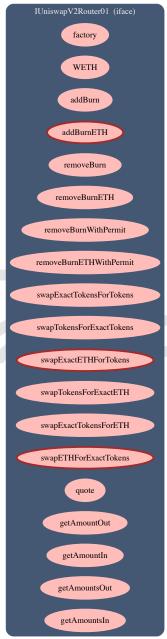
```
| swapExactTokensForTokensSupportingFeeOnTransferTokens | External
 | swapExactETHForTokensSupportingFeeOnTransferTokens | External |
 **MyFriendParrotToken** | Implementation | Context, IERC20, Ownable |||
 | <Constructor> | Public ! | 🛑
                                 |NO | | |
 | name | Public | |
                       |N0 | |
 | symbol | Public
                         |N0 |
 | decimals | Public | |
                           |N0
 | totalSupply | Public !
L | balanceOf | Public | |
                            IN0
 | transfer | Public 📒 | 🥌
                            IN0
L | allowance | Public |
                            |N0
 | approve | Public !
                            |N0
 | transferFrom | Public 📘 | 🥌
                                INO
 | increaseAllowance | Public
                                     |N0
L | decreaseAllowance | Public !
                                     |NO | |
 | isExcludedFromReward | Public
                                      |N0 |
 | totalFees | Public !
L | deliver | Public 🕴 | 🥌
 | reflectionFromToken | Public
                                     |N0 |
 | tokenFromReflection | Public
                                     |N0 |
 | excludeFromReward | Public
                                     onlyOwner |
 | includeInReward | External
                                     | onlyOwner |
 | excludeFromFee | Public | |
                                  | onlyOwner |
 | includeInFee | Public | | 🛑
                               | onlyOwner |
L | setBuyBackPercent | External
                                       | onlyOwner |
 | setBurnFeePercent | External
                                       | onlyOwner |
L | setMaxTxPercent | External !
                                    | onlyOwner |
 | setSwapAndLiquifyEnabled | Public | | 🛑 | onlyOwner |
L | enableTrading | External ! | 🛑
                                  onlyOwner |
 | <Receive Ether> | External | |
 | _buyBackFee | Private 😭 | 🥌
  | _getValues | Private 🔐 |
   _getTValues | Private 🔐 |
   _getRValues | Private 📽 |
   getRate | Private 🔐 |
    getCurrentSupply | Private @
```



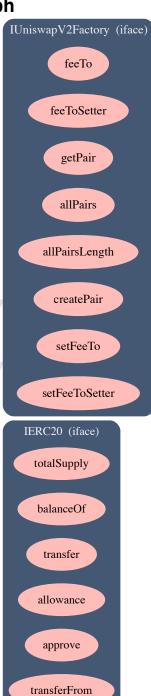
```
| _burnBurn | Private 😭 | 🛑
  | calculateBuyBack | Private 🔐 |
  | calculateBurnFee | Private 📽 |
  | removeAllFee | Private 🛍 | 🥌
  | restoreAllFee | Private 🔐 | 🥌
  | isExcludedFromFee | Public ! |
                                      |N0 |
  | setAsBuyBackAccount | External | | 🛑 | onlyOwner |
  | _approve | Private 🗳 | 🤎 | |
  | _transfer | Private 🛍 | 🛑
  | swapAndLiquify | Private 🔐 | 🥌 | lockTheSwap |
 L | swapTokensForEth | Private 😭 | 🥮 | |
 L | addBurn | Private 😭 | 🛑 | |
 └ | _tokenTransfer | Private 🔐 | 🛑 | |
 L | _transferStandard | Private 🔐 | 🥌
 L | _transferToExcluded | Private 😭 | 🥌
L | _transferFromExcluded | Private 🗳 | 🥌
 L | _transferBothExcluded | Private ≅ | ●
Legend
 Symbol
            Meaning
          Function can modify state |
          Function is payable |
```

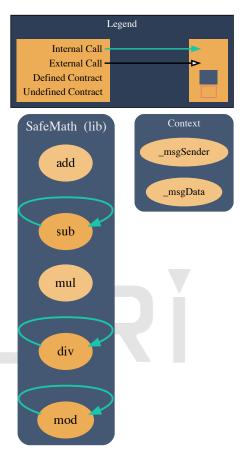


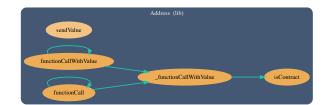
Inheritate Function Relation Graph





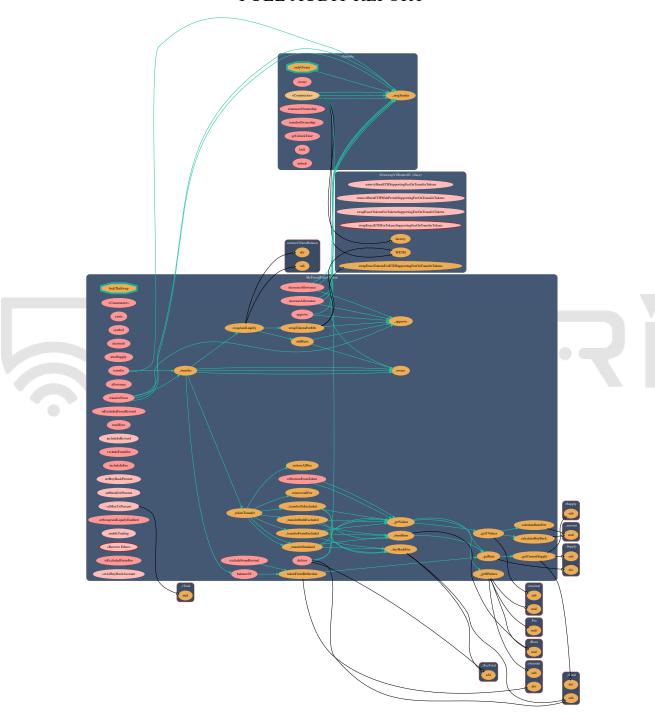














About Securi

Securi is a group of cyber security experts providing cyber security consulting, smart contract security audits, and KYC services covering reliable methods of identification.



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