AuditAce
FROM INCEPTION TO SUCCESS

Smart Contract Audit

FOR

METAI

DATED : 25 FEB 23'

AUDIT SUMMARY

Project name – METAI

Date: 25 February, 2023

Scope of Audit- Audit Ace was consulted to conduct the smart contract audit of the solidity source codes.

Audit Status: **Passed**

Issues Found

Status	Critical	High	Medium	Low	Suggestion
Open	0	0	0	0	0
Acknowledged	0	0	0	0	0
Resolved	0	0	0	0	0

USED TOOLS

Tools:

1.Manual Review: The code has undergone a line-by-line review by the Audit Ace team.

2.BSC Test Network: All tests were conducted on the BSC Test network, and each test has a corresponding transaction attached to it. These tests can be found in the "Functional Tests" section of the report.

3.Slither: The code has undergone static analysis using Slither.

Testnet version:
The tests were performed using the contract deployed on the BSC Testnet, which can be found at the following address:
 https://testnet.bscscan.com/token/0x670A0bdA49fC1B1DeDce53aCABE9daD3E64cc86b

Token Information

Token Name : METAI

Token Symbol: METAI

Decimals: 8

Token Supply: 60,000,000

Token Address:
0x23F4691E3C8eF24bfd4281C8Db94e749624c76a2

Checksum:
adeaf35f858118ef35b1dc566ee56096f8c938d8

Owner:
0xD82FA46364C5b9bC57F10e9c92C626A3469D0aF6

TOKEN OVERVIEW

Fees:

Buy Fees: 0%

Sell Fees: 0%

Transfer Fees: 0%

Fees Privilige: none

Ownership : Owned

Minting: No mint function

Max Tx Amount/ Max Wallet Amount: No

Blacklist: No

Other Priviliges: None

AUDIT METHODOLOGY

The auditing process will follow a routine as special considerations by Auditace:

- Review of the specifications, sources, and instructions provided to Auditace to make sure the contract logic meets the intentions of the client without exposing the user's funds to risk.

- Manual review of the entire codebase by our experts, which is the process of reading source code line-by-line in an attempt to identify potential vulnerabilities.

- Specification comparison is the process of checking whether the code does what the specifications, sources, and instructions provided to Auditace describe.

- Test coverage analysis determines whether the test cases are covering the code and how much code isexercised when we run the test cases.

- Symbolic execution is analysing a program to determine what inputs cause each part of a program to execute.

- Reviewing the codebase to improve maintainability, security, and control based on the established industry and academic practices.

VULNERABILITY CHECKLIST

✅ Return values of low-level calls

✅ **Gasless Send**

✅ Private modifier

✅ Using block.timestamp

✅ Multiple Sends

✅ Re-entrancy

✅ Using Suicide

✅ Tautology or contradiction

✅ Gas Limitand Loops

✅ Timestamp Dependence

✅ Address hardcoded

✅ Revert/require functions

✅ Exception Disorder

✅ Use of tx.origin

✅ Using inline assembly

✅ Integer overflow/underflow

✅ Divide before multiply

✅ Dangerous strict equalities

✅ Missing Zero Address Validation

✅ Using SHA3

✅ Compiler version not fixed

✅ Using throw

CLASSIFICATION OF RISK

Severity	Description
◆ Critical	These vulnerabilities could be exploited easily and can lead to asset loss, data loss, asset, or data manipulation. They should be fixed right away.
◆ High-Risk	A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.
◆ Medium-Risk	A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.
◆ Low-Risk	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.
◆ Gas Optimization /Suggestion	A vulnerability that has an informational character but is not affecting any of the code.

Findings

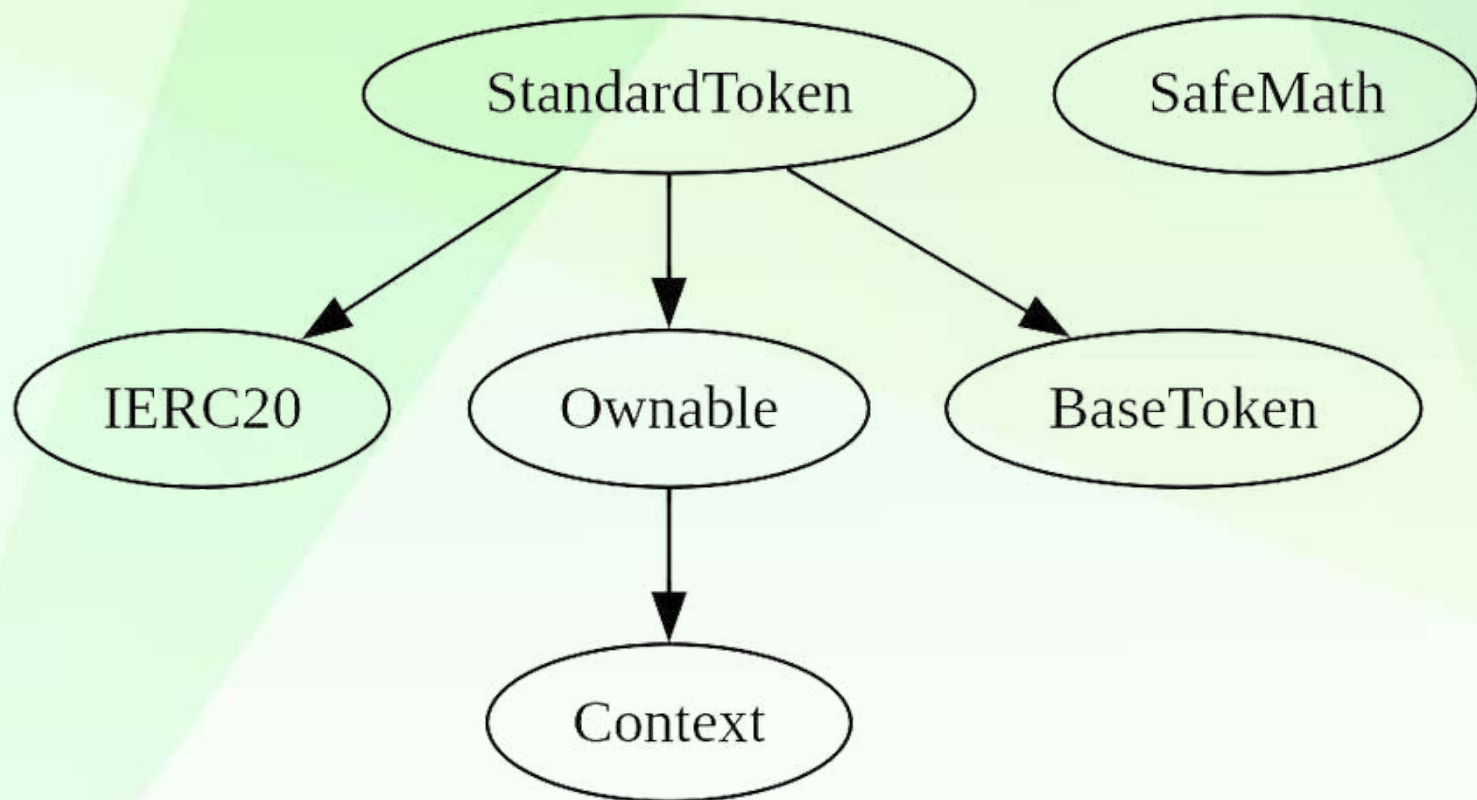| Severity	Found
◆ Critical	0
◆ High-Risk	0
◆ Medium-Risk	0
◆ Low-Risk	0
◆ Gas Optimization / Suggestions	0

INHERITANCE TREE

POINTS TO NOTE

- **Owner is not able to set buy/sell/transfer taxes (0% static)**
- **Owner is not able to blacklist an arbitrary wallet**
- **Owner is not able to set max buy/sell/transfer amounts**
- **Owner is not able to disable trades**
- **Owner is not able to mint new tokens**

CONTRACT ASSESMENT

Contract	Type	Bases		
└	**Function Name**	**Visibility**	**Mutability**	**Modifiers**
IERC20	Interface				
└	totalSupply	External ❗	|NO❗	
└	balanceOf	External ❗	|NO❗	
└	transfer	External ❗	🔴 |NO❗	
└	allowance	External ❗	|NO❗	
└	approve	External ❗	🔴 |NO❗	
└	transferFrom	External ❗	🔴 |NO❗	
Context	Implementation				
└	_msgSender	Internal 🔒	||
└	_msgData	Internal 🔒	||
Ownable	Implementation	Context			
└	<Constructor>	Public ❗	🔴 |NO❗	
└	owner	Public ❗	|NO❗	
└	renounceOwnership	Public ❗	🔴	onlyOwner
└	transferOwnership	Public ❗	🔴	onlyOwner
└	_setOwner	Private 🔐	🔴 ||
SafeMath	Library				
└	tryAdd	Internal 🔒	||
└	trySub	Internal 🔒	||
└	tryMul	Internal 🔒	||
└	tryDiv	Internal 🔒	||
└	tryMod	Internal 🔒	||
└	add	Internal 🔒	||
└	sub	Internal 🔒	||
└	mul	Internal 🔒	||
└	div	Internal 🔒	||
└	mod	Internal 🔒	||
└	sub	Internal 🔒	||
└	div	Internal 🔒	||
└	mod	Internal 🔒	||
BaseToken	Implementation				
StandardToken	Implementation	IERC20, Ownable, BaseToken			
└	<Constructor>	Public ❗	💵 |NO❗	
└	name	Public ❗	|NO❗	

CONTRACT ASSESMENT

└	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 🔒	🔴	
└	_setupDecimals	Internal 🔒	🔴	
└	_beforeTokenTransfer	Internal 🔒	🔴	

Symbol	Meaning
🔴	Function can modify state
💵	Function is payable

STATIC ANALYSIS

```
Contract locking ether found:
        Contract StandardToken (contracts/Token.sol#477-806) has payable functions:
         - StandardToken.constructor(string,string,uint8,uint256) (contracts/Token.sol#490-502)
        But does not have a function to withdraw the ether
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#contracts-that-lock-ether

StandardToken.allowance(address,address).owner (contracts/Token.sol#572) shadows:
        - Ownable.owner() (contracts/Token.sol#161-163) (function)
StandardToken._approve(address,address,uint256).owner (contracts/Token.sol#765) shadows:
        - Ownable.owner() (contracts/Token.sol#161-163) (function)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

Context._msgData() (contracts/Token.sol#120-122) is never used and should be removed
SafeMath.div(uint256,uint256) (contracts/Token.sol#351-353) is never used and should be removed
SafeMath.div(uint256,uint256,string) (contracts/Token.sol#407-416) is never used and should be removed
SafeMath.mod(uint256,uint256) (contracts/Token.sol#367-369) is never used and should be removed
SafeMath.mod(uint256,uint256,string) (contracts/Token.sol#433-442) is never used and should be removed
SafeMath.mul(uint256,uint256) (contracts/Token.sol#337-339) is never used and should be removed
SafeMath.sub(uint256,uint256) (contracts/Token.sol#323-325) is never used and should be removed
SafeMath.tryAdd(uint256,uint256) (contracts/Token.sol#223-232) is never used and should be removed
SafeMath.tryDiv(uint256,uint256) (contracts/Token.sol#274-282) is never used and should be removed
SafeMath.tryMod(uint256,uint256) (contracts/Token.sol#289-297) is never used and should be removed
SafeMath.tryMul(uint256,uint256) (contracts/Token.sol#254-267) is never used and should be removed
SafeMath.trySub(uint256,uint256) (contracts/Token.sol#239-247) is never used and should be removed
StandardToken._burn(address,uint256) (contracts/Token.sol#738-749) is never used and should be removed
StandardToken._setupDecimals(uint8) (contracts/Token.sol#783-785) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version^0.8.17 (contracts/Token.sol#3) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16
solc-0.8.18 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Variable StandardToken._totalSupply (contracts/Token.sol#488) is too similar to StandardToken.constructor(string,string,uint8,uint256).totalSupply_ (contracts/Token.sol#494)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#variable-names-too-similar

StandardToken._name (contracts/Token.sol#485) should be immutable
StandardToken._symbol (contracts/Token.sol#486) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
```

Result => A static analysis of contract's source code has been performed using slither,
No major issues were found in the output

FUNCTIONAL TESTING

Router (PCS V2):
0xD99D1c33F9fC3444f8101754aBC46c52416550D1

1- Adding liquidity (passed):
https://testnet.bscscan.com/tx/0xb4f96efdfa61010dbd3e92c96
741fabb5de9563d0fd5903c2372a466fcb2ae17

2- Buying (0% tax) (passed):
https://testnet.bscscan.com/tx/0x700a20156c23c49215e195eef
181c537f421572a5c802b2cbf7b04cb8ae18250

3- Selling (0% tax) (passed):
https://testnet.bscscan.com/tx/0x5cee8e84a8579549efdc5b68
e3a4511479ed351652860dd2edc30a3197ed3c2d

4- Transferring (0% tax) (passed):
https://testnet.bscscan.com/tx/0x248ab0511af7b080ce6d93099
7ba70ee090945890e15685b82c98f3582bcc05b

MANUAL TESTING

NO ISSUES FOUND

DISCLAIMER

All the content provided in this document is for general information only and should not be used as financial advice or a reason to buy any investment. Team provides no guarantees against the sale of team tokens or the removal of liquidity by the project audited in this document. Always Do your own research and protect yourselves from being scammed. The Auditace team has audited this project for general   information and only expresses their opinion based on similar projects and checks from popular diagnostic tools. Under no circumstances did Auditace receive a payment to manipulate those results or change the awarding badge that we will be adding in our website. Always Do your own research and protect yourselves from scams. This document should not be presented as a reason to buy or not buy any particular token. The Auditace team disclaims any liability for the resulting losses.

ABOUT AUDITACE

We specializes in providing thorough and reliable audits for Web3 projects. With a team of experienced professionals, we use cutting-edge technology and rigorous methodologies to evaluate the security and integrity of blockchain systems. We are committed to helping our clients ensure the safety and transparency of their digital assets and transactions.

https://auditace.tech/

https://t.me/Audit_Ace

https://twitter.com/auditace_

https://github.com/Audit-Ace