MAZE

Smart Contract Audit Report

SYSFIXED

16 Mar 2022

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AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain
MAZE	MAZE	Binance Smart Chain

Addresses

Contract address	0x955d76f9dd0da70b64531777d1b1e55668d1a9c4
Contract deployer address	0x1D83BCd3102AF380b89273ae05098929032f9b47

Project Website

https://www.mazegamefi.com/

Codebase

https://bscscan.com/address/0x955d76f9dd0da70b64531777d1b1e55668d1a9c4#code

SUMMARY

Welcome to our MAZE METAVERSE. Have you ever imagined being in a maze and adventuring in it? Become a real adventurer, use magic, and explore the labyrinth in an immersive way. Not only can we do it, but we do it with the most advanced VR technology. Our vision is to turn those fantasies and fears from our childhood into real life. We will build a metaverse game platform through advanced VR technology. Each VR game on the forum will bring users an authentic experience in different scenarios. Traveling in space, fighting with animals in the forest, exploring the ocean, surviving in the desert……Imagination is infinite. MAZE is the first work. It is a decentralized NFT collection and battle game built on Binance Smart Chain.

Contract Summary

Documentation Quality

MAZE provides a very good documentation with standard of solidity base code.

- The technical description is provided clearly and structured and also dont have any high risk issue.

Code Quality

The Overall quality of the basecode is standard.

- Standard solidity basecode and rules are already followed by MAZE with the discovery of several low issues.

Test Coverage

Test coverage of the project is 100% (Through Codebase)

Audit Findings Summary

- SWC-100 SWC-108 | Explicitly define visibility for all state variables on lines 255, 257, 258, 259, 260, 261, 262, 265, 266 and 267.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 6.

CONCLUSION

We have audited the MAZE project released on March 2022 to discover issues and identify potential security vulnerabilities in MAZE Project. This process is used to find technical issues and security loopholes which might be found in the smart contract.

The security audit report provides satisfactory results with low-risk issues.

The issues found in the MAZE smart contract code do not pose a considerable risk. The writing of the contract is close to the standard of writing contracts in general. The low-risk issues are arithmetic operation issues, a floating pragma is set, and a state variable visibility is not set. State variable visibility is not set. It is best practice to set the visibility of state variables explicitly. The default visibility for "_decimals" is internal. Other possible visibility settings are public and private. The current pragma Solidity directive is ""=0.8.0"". Specifying a fixed compiler version is recommended to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

AUDIT RESULT

Article	Category	Description	Result
Default Visibility	SWC-100 SWC-108	Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously.	ISSUE FOUND
Integer Overflow and Underflow	SWC-101	If unchecked math is used, all math operations should be safe from overflows and underflows.	PASS
Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.	PASS
Floating Pragma	SWC-103	Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly.	ISSUE FOUND
Unchecked Call Return Value	SWC-104	The return value of a message call should be checked.	PASS
Unprotected Ether Withdrawal	SWC-105	Due to missing or insufficient access controls, malicious parties can withdraw from the contract.	PASS
SELFDESTRUCT Instruction	SWC-106	The contract should not be self-destructible while it has funds belonging to users.	PASS
Reentrancy	SWC-107	Check effect interaction pattern should be followed if the code performs recursive call.	PASS
Uninitialized Storage Pointer	SWC-109	Uninitialized local storage variables can point to unexpected storage locations in the contract.	PASS
Assert Violation	SWC-110 SWC-123	Properly functioning code should never reach a failing assert statement.	PASS
Deprecated Solidity Functions	SWC-111	Deprecated built-in functions should never be used.	PASS
Delegate call to Untrusted Callee	SWC-112	Delegatecalls should only be allowed to trusted addresses.	PASS

DoS (Denial of Service)	SWC-113 SWC-128	Execution of the code should never be blocked by a specific contract state unless required.	PASS
Race Conditions	SWC-114	Race Conditions and Transactions Order Dependency should not be possible.	PASS
Authorization through tx.origin	SWC-115	tx.origin should not be used for authorization.	PASS
Block values as a proxy for time	SWC-116	Block numbers should not be used for time calculations.	PASS
Signature Unique ID	SWC-117 SWC-121 SWC-122	Signed messages should always have a unique id. A transaction hash should not be used as a unique id.	PASS
Incorrect Constructor Name	SWC-118	Constructors are special functions that are called only once during the contract creation.	PASS
Shadowing State Variable	SWC-119	State variables should not be shadowed.	PASS
Weak Sources of Randomness	SWC-120	Random values should never be generated from Chain Attributes or be predictable.	PASS
Write to Arbitrary Storage Location	SWC-124	The contract is responsible for ensuring that only authorized user or contract accounts may write to sensitive storage locations.	PASS
Incorrect Inheritance Order	SWC-125	When inheriting multiple contracts, especially if they have identical functions, a developer should carefully specify inheritance in the correct order. The rule of thumb is to inherit contracts from more /general/ to more /specific/.	PASS
Insufficient Gas Griefing	SWC-126	Insufficient gas griefing attacks can be performed on contracts which accept data and use it in a sub-call on another contract.	PASS
Arbitrary Jump Function	SWC-127	As Solidity doesnt support pointer arithmetics, it is impossible to change such variable to an arbitrary value.	PASS

Typographical Error	SWC-129	A typographical error can occur for example when the intent of a defined operation is to sum a number to a variable.	PASS
Override control character	SWC-130	Malicious actors can use the Right-To-Left-Override unicode character to force RTL text rendering and confuse users as to the real intent of a contract.	PASS
Unused variables	SWC-131 SWC-135	Unused variables are allowed in Solidity and they do not pose a direct security issue.	PASS
Unexpected Ether balance	SWC-132	Contracts can behave erroneously when they strictly assume a specific Ether balance.	PASS
Hash Collisions Variable	SWC-133	Using abi.encodePacked() with multiple variable length arguments can, in certain situations, lead to a hash collision.	PASS
Hardcoded gas amount	SWC-134	The transfer() and send() functions forward a fixed amount of 2300 gas.	PASS
Unencrypted Private Data	SWC-136	It is a common misconception that private type variables cannot be read.	PASS

SMART CONTRACT ANALYSIS

Started	Tuesday Mar 15 2022 12:53:49 GMT+0000 (Coordinated Universal Time)
Finished	Wednesday Mar 16 2022 12:06:35 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	MAZEToken.sol

Detected Issues

ID	Title	Severity	Status
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged
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SWC-103 | A FLOATING PRAGMA IS SET.

LINE 6

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- MAZEToken.sol

Locations

```
5   // SPDX-License-Identifier: GPL-3.0-or-later
6   pragma solidity ^0.8.0;
7   library SafeMath {
8   /**
9   * @dev Returns the addition of two unsigned integers, reverting on
10
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 255

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_decimals" is internal. Other possible visibility settings are public and private.

Source File

- MAZEToken.sol

Locations

```
254   string constant _symbol = 'MAZE';
255   uint8 immutable _decimals = 18;
256
257   address _pancakeAddress;
258   address _teama;
259
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 257

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_pancakeAddress" is internal. Other possible visibility settings are public and private.

Source File

- MAZEToken.sol

Locations

```
256
257   address _pancakeAddress;
258   address _teama;
259   address _teamb;
260   address _teamc;
261
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 258

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_teama" is internal. Other possible visibility settings are public and private.

Source File

- MAZEToken.sol

Locations

```
257   address _pancakeAddress;
258   address _teama;
259   address _teamb;
260   address _teamc;
261   address _teamd;
262
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 259

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_teamb" is internal. Other possible visibility settings are public and private.

Source File

- MAZEToken.sol

Locations

```
258   address _teama;
259   address _teamb;
260   address _teamc;
261   address _teamd;
262   uint256 _totalsupply;
263
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 260

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_teamc" is internal. Other possible visibility settings are public and private.

Source File

- MAZEToken.sol

Locations

```
259   address _teamb;
260   address _teamc;
261   address _teamd;
262   uint256 _totalsupply;
263
264
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 261

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_teamd" is internal. Other possible visibility settings are public and private.

Source File

- MAZEToken.sol

Locations

```
260   address _teamc;
261   address _teamd;
262   uint256 _totalsupply;
263
264   mapping (address => mapping (address => uint256)) private _allowances;
265
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 262

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_totalsupply" is internal. Other possible visibility settings are public and private.

Source File

- MAZEToken.sol

Locations

```
261   address _teamd;
262   uint256 _totalsupply;
263
264   mapping (address => mapping (address => uint256)) private _allowances;
265   mapping(address=>bool) _isExcluded;
266
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 265

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_isExcluded" is internal. Other possible visibility settings are public and private.

Source File

- MAZEToken.sol

Locations

```
264   mapping (address => mapping (address => uint256)) private _allowances;
265   mapping(address=>bool) _isExcluded;
266   mapping(address=>bool) _banneduser;
267   mapping(address=>uint256) _balances;
268
269
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 266

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_banneduser" is internal. Other possible visibility settings are public and private.

Source File

- MAZEToken.sol

Locations

```
265   mapping(address=>bool) _isExcluded;
266   mapping(address=>bool) _banneduser;
267   mapping(address=>uint256) _balances;
268
269   /**
270
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 267

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_balances" is internal. Other possible visibility settings are public and private.

Source File

- MAZEToken.sol

Locations

```
266   mapping(address=>bool) _banneduser;
267   mapping(address=>uint256) _balances;
268
269   /**
270   * @dev Emitted when `value` tokens are moved from one account (`from`) to
271
```

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