



Mashida

# Smart Contract Audit Report

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## Disclaimer

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# AUDITED DETAILS

## Audited Project

Project name	Token ticker	Blockchain
Mashida	MSHD	BSC

## Addresses

Contract address	0x06CE168FF4Ca760768f42C440d4266BA705E2F21
Contract deployer address	0x5ab868961f4F18C553BdA8CE61cB338E5E1bB300

## Project Website

<https://mashida.io/>

## Codebase

<https://bscscan.com/address/0x06CE168FF4Ca760768f42C440d4266BA705E2F21#contracts>

# SUMMARY

MASHIDA is a BEP-20 token built on the BNB blockchain, it is a Crypto Token and a Web3 Platform that contains a Virtual world, Social and Game application features that are interconnected, here people can interact virtually, work, play, and meet based on activity and interaction, they can transact peer to peer. Application owners and users are referred to as the Mashida Army, with NFT as profile identities and assets on the platform, \$MSHD will be required for buying and selling non-fungible tokens (NFTs).

## Contract Summary

### Documentation Quality

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

- The technical description is provided clearly and structured and also don't have any high risk issue.

### Code Quality

The Overall quality of the basecode is standard.

- Standard solidity basecode and rules are already followed with Mashida 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 44.
- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 114, 115, 116, 117, 118, 119, 120, 155, 163, 170, 189, 191, 200 and 201.

## CONCLUSION

We have audited the Mashida project which has released on January 2023 to discover issues and identify potential security vulnerabilities in Mashida Project. This process is used to find technical issues and security loopholes that find some common issues in the code.

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

The most common issue found in writing code on contracts that do not pose a big risk, writing on contracts is close to the standard of writing contracts in general. The low-level issues found are some arithmetic operation issues and a state variable visibility is not set. It is best practice to set the visibility of state variables explicitly.

# 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.	<b>ISSUE FOUND</b>
Integer Overflow and Underflow	SWC-101	If unchecked math is used, all math operations should be safe from overflows and underflows.	<b>ISSUE FOUND</b>
Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.	<b>PASS</b>
Floating Pragma	SWC-103	Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly.	<b>PASS</b>
Unchecked Call Return Value	SWC-104	The return value of a message call should be checked.	<b>PASS</b>
SELFDESTRUCT Instruction	SWC-106	The contract should not be self-destructible while it has funds belonging to users.	<b>PASS</b>
Reentrancy	SWC-107	Check effect interaction pattern should be followed if the code performs recursive call.	<b>PASS</b>
Assert Violation	SWC-110	Properly functioning code should never reach a failing assert statement.	<b>PASS</b>
Deprecated Solidity Functions	SWC-111	Deprecated built-in functions should never be used.	<b>PASS</b>
Delegate call to Untrusted Caller	SWC-112	Delegatecalls should only be allowed to trusted addresses.	<b>PASS</b>
DoS (Denial of Service)	SWC-113 SWC-128	Execution of the code should never be blocked by a specific contract state unless required.	<b>PASS</b>
Race Conditions	SWC-114	Race Conditions and Transactions Order Dependency should not be possible.	<b>PASS</b>

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
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
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

# SMART CONTRACT ANALYSIS

Started	Sat Jan 14 2023 21:27:40 GMT+0000 (Coordinated Universal Time)
Finished	Sun Jan 15 2023 00:21:20 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	Mashida.sol

## Detected Issues

ID	Title	Severity	Status
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+=" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+=" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+=" DISCOVERED	low	acknowledged



SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	<b>low</b>	acknowledged
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# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 114

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- Mashida.sol

## Locations

```
113 //split TGE
114 _mint(PRESALE, 100000000 * 10 ** uint256(_decimals)); //1%
115 _mint(LIQUIDITY_PROVISION, 3200000000 * 10 ** uint256(_decimals)); //32%
116 _mint(ECOSYSTEM, 2000000000 * 10 ** uint256(_decimals)); //20%
117 _mint(TEAM, 1000000000 * 10 ** uint256(_decimals)); //10%
118
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 115

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- Mashida.sol

## Locations

```
114 _mint(PRESALE, 100000000 * 10 ** uint256(_decimals)); //1%
115 _mint(LIQUIDITY_PROVISION, 3200000000 * 10 ** uint256(_decimals)); //32%
116 _mint(ECOSYSTEM, 2000000000 * 10 ** uint256(_decimals)); //20%
117 _mint(Team, 1000000000 * 10 ** uint256(_decimals)); //10%
118 _mint(MARKETING, 1500000000 * 10 ** uint256(_decimals)); //15%
119
```

# SWC-101 | ARITHMETIC OPERATION "\*\*" DISCOVERED

LINE 116

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- Mashida.sol

## Locations

```
115 _mint(LIQUIDITY_PROVISION, 3200000000 * 10 ** uint256(_decimals)); //32%
116 _mint(ECOSYSTEM, 2000000000 * 10 ** uint256(_decimals)); //20%
117 _mint(Team, 1000000000 * 10 ** uint256(_decimals)); //10%
118 _mint(MARKETING, 1500000000 * 10 ** uint256(_decimals)); //15%
119 _mint(PRODUCT_DEVELOPMENT, 1500000000 * 10 ** uint256(_decimals)); //15%
120
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 117

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- Mashida.sol

## Locations

```
116 _mint(ECOSYSTEM, 2000000000 * 10 ** uint256(_decimals)); //20%
117 _mint(Team, 1000000000 * 10 ** uint256(_decimals)); //10%
118 _mint(MARKETING, 1500000000 * 10 ** uint256(_decimals)); //15%
119 _mint(PRODUCT_DEVELOPMENT, 1500000000 * 10 ** uint256(_decimals)); //15%
120 _mint(TREASURY, 700000000 * 10 ** uint256(_decimals)); //7%
121
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 118

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- Mashida.sol

## Locations

```
117 _mint(TEAM, 1000000000 * 10 ** uint256(_decimals)); //10%
118 _mint(MARKETING, 1500000000 * 10 ** uint256(_decimals)); //15%
119 _mint(PRODUCT_DEVELOPMENT, 1500000000 * 10 ** uint256(_decimals)); //15%
120 _mint(TREASURY, 700000000 * 10 ** uint256(_decimals)); //7%
121 pinkAntiBot = IPinkAntiBot(pinkAntiBot_);
122
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 119

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- Mashida.sol

## Locations

```
118 _mint(MARKETING, 1500000000 * 10 ** uint256(_decimals)); //15%
119 _mint(PRODUCT_DEVELOPMENT, 1500000000 * 10 ** uint256(_decimals)); //15%
120 _mint(TREASURY, 700000000 * 10 ** uint256(_decimals)); //7%
121 pinkAntiBot = IPinkAntiBot(pinkAntiBot_);
122 pinkAntiBot.setTokenOwner(msg.sender);
123
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 120

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- Mashida.sol

## Locations

```
119  _mint(PRODUCT_DEVELOPMENT, 1500000000 * 10 ** uint256(_decimals)); //15%
120  _mint(TREASURY, 700000000 * 10 ** uint256(_decimals)); //7%
121  pinkAntiBot = IPinkAntiBot(pinkAntiBot_);
122  pinkAntiBot.setTokenOwner(msg.sender);
123  antiBotEnabled = true;
124
```



## SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 155

### low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

### Source File

- Mashida.sol

### Locations

```
154     if(_allowances[sender][_msgSender()] != ~uint(0)){
155         _allowances[sender][_msgSender()] = _allowances[sender][_msgSender()]- (amount);
156     }
157
158     _transfer(sender, recipient, amount);
159
```

## SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 163

### low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

### Source File

- Mashida.sol

### Locations

```
162  function increaseAllowance(address spender, uint256 addedValue) public virtual
returns (bool) {
163  _approve(_msgSender(), spender, _allowances[_msgSender()][spender] + addedValue);
164  return true;
165  }
166  function decreaseAllowance(address spender, uint256 subtractedValue) public virtual
returns (bool) {
167
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 170

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- Mashida.sol

## Locations

```
169     unchecked {
170         _approve(_msgSender(), spender, currentAllowance - subtractedValue);
171     }
172     return true;
173 }
174
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 189

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- Mashida.sol

## Locations

```
188     }
189     _balances[sender] = senderBalance - amount;
190
191     _balances[recipient] += amount;
192     emit Transfer(sender, recipient, amount);
193
```

## SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 191

### low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

### Source File

- Mashida.sol

### Locations

```
190
191  _balances[recipient] += amount;
192  emit Transfer(sender, recipient, amount);
193  return true;
194  }
195
```

## SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 200

### low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

### Source File

- Mashida.sol

### Locations

```
199
200  _totalSupply += amount;
201  _balances[account] += amount;
202  emit Transfer(address(0), account, amount);
203  }
204
```

# SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 201

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- Mashida.sol

## Locations

```
200  _totalSupply += amount;  
201  _balances[account] += amount;  
202  emit Transfer(address(0), account, amount);  
203  }  
204  
205
```

## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 44

### low SEVERITY

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

### Source File

- Mashida.sol

### Locations

```
43  address public _owner;
44  address immutable _creator;
45
46  event OwnershipTransferred(address indexed previousOwner, address indexed newOwner);
47  constructor() {
48
```



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This is a limited report on our findings based on our analysis, in accordance with good industry practice as of the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn’t say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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