Anime

Smart Contract Audit Report

SYSFIXED

27 Jan 2021

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AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain
Anime	ANI	Binance Smart Chain

Addresses

Contract address	0xac472d0eed2b8a2f57a6e304ea7ebd8e88d1d36f
Contract deployer address	0xf0C864Ee37c077F53De5cF8973298e4714Bfe9b4

Project Website

https://animetoken.me/

Codebase

https://bscscan.com/address/0xac472d0eed2b8a2f57a6e304ea7ebd8e88d1d36f#code

SUMMARY

Anime Token ® is a decentralized Binance Smart Chain Token and a unique ERC1155 NFT platform. We offer professional Anime-style artwork on our NFT staking platform. Anime Token ® is for weebs and otakus

Contract Summary

Documentation Quality

Anime 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 Anime with the discovery of several low issues.

Test Coverage

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

Audit Findings Summary

- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 133, 165, 188, 189, 224 and 260.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 9, 36, 106, 268, 369, 679, 719 and 737.

CONCLUSION

We have audited the Anime project released on January 2021 to discover issues and identify potential security vulnerabilities in Anime 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 in the Anime 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 some arithmetic operation issues, and a floating pragma is set. The current pragma Solidity directive is ""^0.7.0"". 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.

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.	PASS
Integer Overflow and Underflow	SWC-101	If unchecked math is used, all math operations should be safe from overflows and underflows.	ISSUE FOUND
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 Jan 26 2021 07:03:17 GMT+0000 (Coordinated Universal Time)
Finished	Wednesday Jan 27 2021 09:19:38 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	StandardBEP20.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-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
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SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 133

low SEVERITY

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

Source File

- StandardBEP20.sol

Locations

```
132   function add(uint256 a, uint256 b) internal pure returns (uint256) {
133   uint256 c = a + b;
134   require(c >= a, "SafeMath: addition overflow");
135
136   return c;
137
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 165

low SEVERITY

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

Source File

- StandardBEP20.sol

Locations

```
164   require(b <= a, errorMessage);
165   uint256 c = a - b;
166
167   return c;
168   }
169
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 188

low SEVERITY

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

Source File

- StandardBEP20.sol

Locations

```
187
188   uint256 c = a * b;
189   require(c / a == b, "SafeMath: multiplication overflow");
190
191   return c;
192
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 189

low SEVERITY

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

Source File

- StandardBEP20.sol

Locations

```
188   uint256 c = a * b;
189   require(c / a == b, "SafeMath: multiplication overflow");
190
191   return c;
192   }
193
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 224

low SEVERITY

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

Source File

- StandardBEP20.sol

Locations

```
223   require(b > 0, errorMessage);
224   uint256 c = a / b;
225   // assert(a == b * c + a % b); // There is no case in which this doesn't hold
226
227   return c;
228
```

SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 260

low SEVERITY

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

Source File

- StandardBEP20.sol

Locations

```
259   require(b != 0, errorMessage);
260   return a % b;
261   }
262   }
263
264
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 9

low SEVERITY

The current pragma Solidity directive is ""^0.7.0"". 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

- StandardBEP20.sol

Locations

```
8
9   pragma solidity ^0.7.0;
10
11   /*
12   * @dev Provides information about the current execution context, including the
13
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 36

low SEVERITY

The current pragma Solidity directive is ""^0.7.0"". 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

- StandardBEP20.sol

Locations

```
35
36   pragma solidity ^0.7.0;
37
38   /**
39   * @dev Contract module which provides a basic access control mechanism, where
40
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 106

low SEVERITY

The current pragma Solidity directive is ""^0.7.0"". 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

- StandardBEP20.sol

Locations

```
105
106   pragma solidity ^0.7.0;
107
108   /**
109   * @dev Wrappers over Solidity's arithmetic operations with added overflow
110
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 268

low SEVERITY

The current pragma Solidity directive is ""^0.7.0"". 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

- StandardBEP20.sol

Locations

```
267
268   pragma solidity ^0.7.0;
269
270   /**
271   * @dev Interface of the BEP standard.
272
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 369

low SEVERITY

The current pragma Solidity directive is ""^0.7.0"". 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

- StandardBEP20.sol

Locations

```
368
369   pragma solidity ^0.7.0;
370
371
372
373
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 679

low SEVERITY

The current pragma Solidity directive is ""^0.7.0"". 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

- StandardBEP20.sol

Locations

```
678
679   pragma solidity ^0.7.0;
680
681
682   /**
683
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 719

low SEVERITY

The current pragma Solidity directive is ""^0.7.0"". 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

- StandardBEP20.sol

Locations

```
718
719   pragma solidity ^0.7.0;
720
721
722   /**
723
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 737

low SEVERITY

The current pragma Solidity directive is ""^0.7.0"". 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

- StandardBEP20.sol

Locations

```
736
737   pragma solidity ^0.7.0;
738
739
740
741
```

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