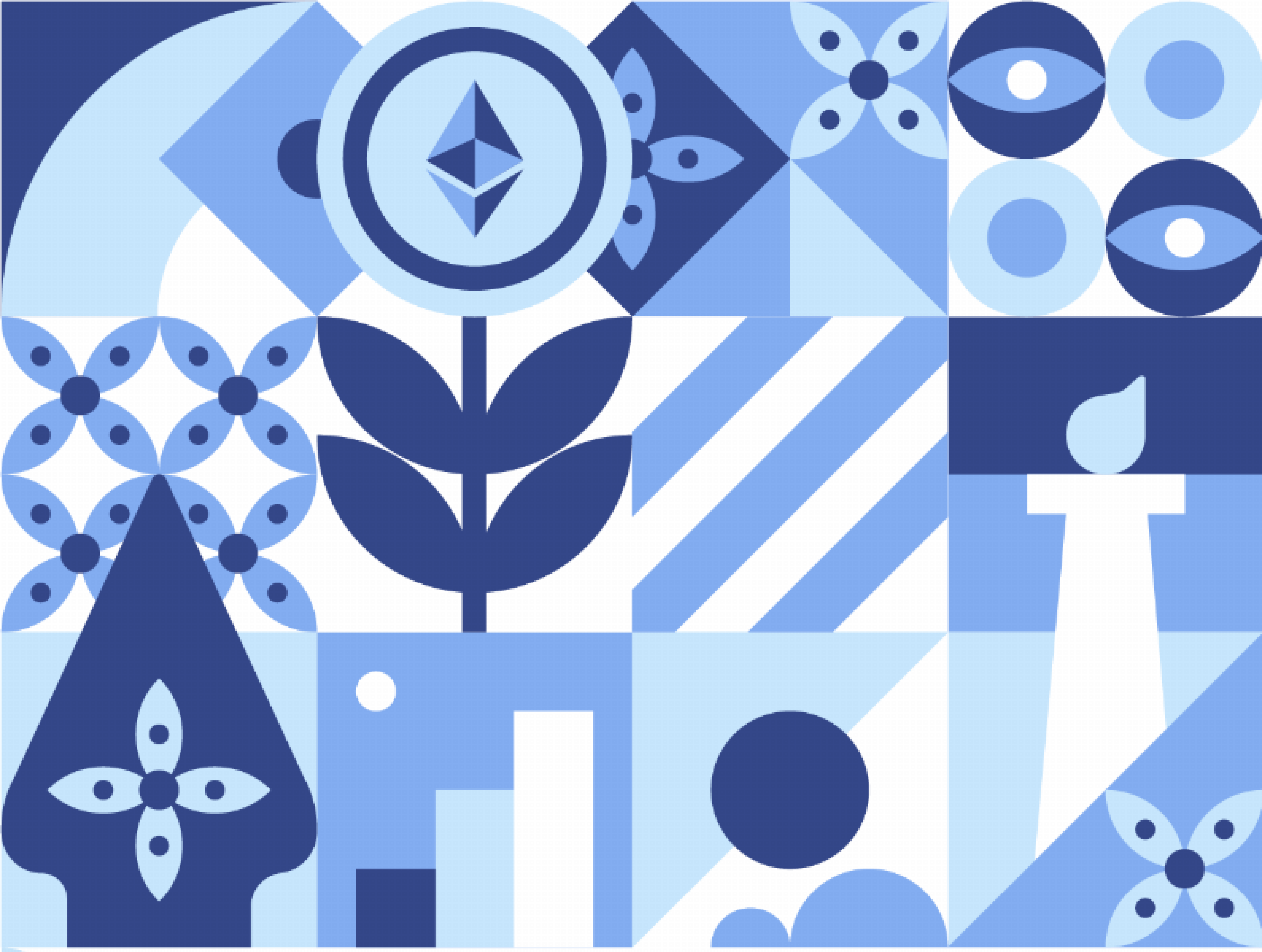

BITTOKEN

Smart Contract Audit Report

SYSFIXED

22 Nov 2020

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AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain
BITTOKEN	BITT	Ethereum

Addresses

Contract address	0x9f9913853f749b3fe6d6d4e16a1cc3c1656b6d51
Contract deployer address	0xd4CeA40761CaB3B05Bba3A7C2CD3124C5FAEa53b

Project Website

https://bittoken.club/

Codebase

https://etherscan.io/address/0x9f9913853f749b3fe6d6d4e16a1cc3c1656b6d51#code

SUMMARY

BITT is the native token for every crypto community! It is designed with the sole purpose in mind of rewarding group members and developing fun and unique utility for any project. BITT is a giving token that will evolve based on the needs of its holders. Members and affiliates of the BITToken club will be rewarded for engaging with BITT platforms, being active within communities while holding, staking, and spending their BITT. There is no presale for BITT because the ideals of the project are centered around bringing value to communities, not extracting capital from investors. When the vision of the BITToken project is fully realized, members of the diverse and expanding crypto space will have one token that unites them.

Contract Summary

Documentation Quality

BITTOKEN provides a very poor documentation with standard of solidity base code.

- The technical description is provided unclear and disorganized.

Code Quality

The Overall quality of the basecode is poor.

- Solidity basecode and rules are unclear and disorganized by BITTOKEN.

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 1109.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 9, 36, 116, 278, 422, 731, 765, 814, 856, 1042 and 1084.
- SWC-116 | It is recommended to use oracles for block values as a proxy for time on lines 1109.

CONCLUSION

We have audited the BITTOKEN project released in November 2020 to find issues and identify potential security vulnerabilities in the BITTOKEN project. This process is used to find technical issues and security loopholes that may be found in smart contracts.

The security audit report gave unsatisfactory results with the discovery of high-risk issues and several other low-risk issues.

Writing a contract that does not follow the Solidity style guide can pose a significant risk. The high risk problem we found is the arithmetic operator can overflow, and It is possible to cause an integer overflow in the arithmetic operation. Whereas Low risk Issues we found are floating pragmas set on several lines and the control flow decision is made based on the block.timestamp environment variable. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Avoid using any of those environment variables as sources of randomness and be aware that the use of these variables introduces a certain level of trust into miners.

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.	ISSUE FOUND
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	Saturday Nov 21 2020 14:53:16 GMT+0000 (Coordinated Universal Time)
Finished	Sunday Nov 22 2020 22:58:51 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	BITTOKEN.sol

Detected Issues

ID	Title	Severity	Status
SWC-101	THE ARITHMETIC OPERATOR CAN OVERFLOW.	high	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-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-116	A CONTROL FLOW DECISION IS MADE BASED ON THE BLOCK.TIMESTAMP ENVIRONMENT VARIABLE.	low	acknowledged

SWC-101 | THE ARITHMETIC OPERATOR CAN OVERFLOW.

LINE 1109

high SEVERITY

It is possible to cause an integer overflow or underflow in the arithmetic operation.

Source File

- BITTOKEN.sol

Locations

```
1108   // solhint-disable-next-line not-rely-on-time
1109   require(block.timestamp >= _snapshotTimestamp + 30 days, "Not passed 30 days
yet");
1110   // update snapshot timestamp with new time
1111   _snapshotTimestamp = block.timestamp;
1112
1113
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 9

low SEVERITY

The current pragma Solidity directive is ""^0.6.0"". 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

- BITTOKEN.sol

Locations

```
8
9   pragma solidity ^0.6.0;
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 ""^0.6.0"". 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

- BITTOKEN.sol

Locations

```
35
36   pragma solidity ^0.6.0;
37
38   /**
39   * @dev Interface of the ERC20 standard as defined in the EIP.
40
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 116

low SEVERITY

The current pragma Solidity directive is ""^0.6.0"". 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

- BITTOKEN.sol

Locations

```
115
116   pragma solidity ^0.6.0;
117
118   /**
119   * @dev Wrappers over Solidity's arithmetic operations with added overflow
120
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 278

low SEVERITY

The current pragma Solidity directive is ""^0.6.2"". 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

- BITTOKEN.sol

Locations

```
277
278   pragma solidity ^0.6.2;
279
280   /**
281   * @dev Collection of functions related to the address type
282
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 422

low SEVERITY

The current pragma Solidity directive is ""^0.6.0"". 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

- BITTOKEN.sol

Locations

```
421
422   pragma solidity ^0.6.0;
423
424
425
426
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 731

low SEVERITY

The current pragma Solidity directive is ""^0.6.0"". 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

- BITTOKEN.sol

Locations

```
730
731   pragma solidity ^0.6.0;
732
733   /**
734   * @dev Standard math utilities missing in the Solidity language.
735
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 765

low SEVERITY

The current pragma Solidity directive is ""^0.6.0"". 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

- BITTOKEN.sol

Locations

```
764
765   pragma solidity ^0.6.0;
766
767
768   /**
769
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 814

low SEVERITY

The current pragma Solidity directive is ""^0.6.0"". 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

- BITTOKEN.sol

Locations

```
813
814   pragma solidity ^0.6.0;
815
816
817   /**
818
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 856

low SEVERITY

The current pragma Solidity directive is ""^0.6.0"". 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

- BITTOKEN.sol

Locations

```
855
856   pragma solidity ^0.6.0;
857
858
859
860
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 1042

low SEVERITY

The current pragma Solidity directive is ""^0.6.0"". 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

- BITTOKEN.sol

Locations

```
1041
1042    pragma solidity ^0.6.0;
1043
1044
1045
1046
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 1084

low SEVERITY

The current pragma Solidity directive is ""^0.6.0"". 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

- BITTOKEN.sol

Locations

```
1083   // SPDX-License-Identifier: MIT
1084   pragma solidity ^0.6.0;
1085
1086
1087
1088
```

SWC-116 | A CONTROL FLOW DECISION IS MADE BASED ON THE BLOCK.TIMESTAMP ENVIRONMENT VARIABLE.

LINE 1109

low SEVERITY

The block.timestamp environment variable is used to determine a control flow decision. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- BITTOKEN.sol

Locations

```
1108   // solhint-disable-next-line not-rely-on-time
1109   require(block.timestamp >= _snapshotTimestamp + 30 days, "Not passed 30 days
yet");
1110   // update snapshot timestamp with new time
1111   _snapshotTimestamp = block.timestamp;
1112
1113
```

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