Cyberscope

Audit Report

BloxFi

March 2023

Type	ERC20
Network	ARBITRUM
Address	0xd9cc19bb189524a33505eb348540d222045c9516
Audited by	© cyberscope

Table of Contents

Review

Contract Name	Token
Compiler Version	v0.8.2+commit.661d1103
Optimization	200 runs
Explorer	https://arbiscan.io/address/0xd9cc19bb189524a33505eb348540d222045c9516
Address	0xd9cc19bb189524a33505eb348540d222045c9516
Network	ARBITRUM
Symbol	BLOX
Decimals	18
Total Supply	1,000,000

Audit Updates

Initial Audit	11 Mar 2023

Source Files

Filename	SHA256
Token.sol	8086ca104c1d8eee537f192d1af1bdf85d81d9b0290f3055c4e11f87577a636e

Analysis

● Critical ● Medium ● Minor / Informative ● Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OCTD	Transfers Contract's Tokens	Passed
●	OTUT	Transfers User's Tokens	Unresolved
●	ELFM	Exceeds Fees Limit	Passed
●	ULTW	Transfers Liquidity to Team Wallet	Passed
●	MT	Mints Tokens	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses	Passed

OTUT - Transfers User's Tokens

Criticality	Critical
Location	Token.sol#L34
Status	Unresolved

Description

Any user has the authority to transfer the balance of a user's address if the user has granted allowance. The contract does not subtract the allowance in the `transferFrom()` method, as a result, the transfer can be repeated until the user's balance go to zero.

```
function transferFrom(address from, address to, uint value) public
returns(bool) {
    require(balanceOf(from) >= value, 'balance too low');
    require(allowance[from][msg.sender] >= value, 'allowance too low');
    balances[to] += value;
    balances[from] -= value;
    emit Transfer(from, to, value);
    return true;
}
```

Recommendation

The team is adviced to subtract the allowance in the `transferFrom()` method and migrate to a new contract.

Diagnostics

Critical Medium Minor / Informative

Severity	Code	Description	Status
●	L02	State Variables could be Declared Constant	Unresolved
●	L19	Stable Compiler Version	Unresolved

L02 - State Variables could be Declared Constant

Criticality	Minor / Informative
Location	Token.sol#L6,7,8,9
Status	Unresolved

Description

State variables can be declared as constant using the constant keyword. This means that the value of the state variable cannot be changed after it has been set. Additionally, the constant variables decrease gas consumption of the corresponding transaction.

```
uint public totalSupply = 1000000 * 10 ** 18
string public name = "BloxFi"
string public symbol = "BLOX"
uint public decimals = 18
```

Recommendation

Constant state variables can be useful when the contract wants to ensure that the value of a state variable cannot be changed by any function in the contract. This can be useful for storing values that are important to the contract's behavior, such as the contract's address or the maximum number of times a certain function can be called. The team is advised to add the constant keyword to state variables that never change.

L19 - Stable Compiler Version

Criticality	Minor / Informative
Location	Token.sol#L1
Status	Unresolved

Description

The ^ symbol indicates that any version of Solidity that is compatible with the specified version (i.e., any version that is a higher minor or patch version) can be used to compile the contract. The version lock is a mechanism that allows the author to specify a minimum version of the Solidity compiler that must be used to compile the contract code. This is useful because it ensures that the contract will be compiled using a version of the compiler that is known to be compatible with the code.

```
pragma solidity ^0.8.2;
```

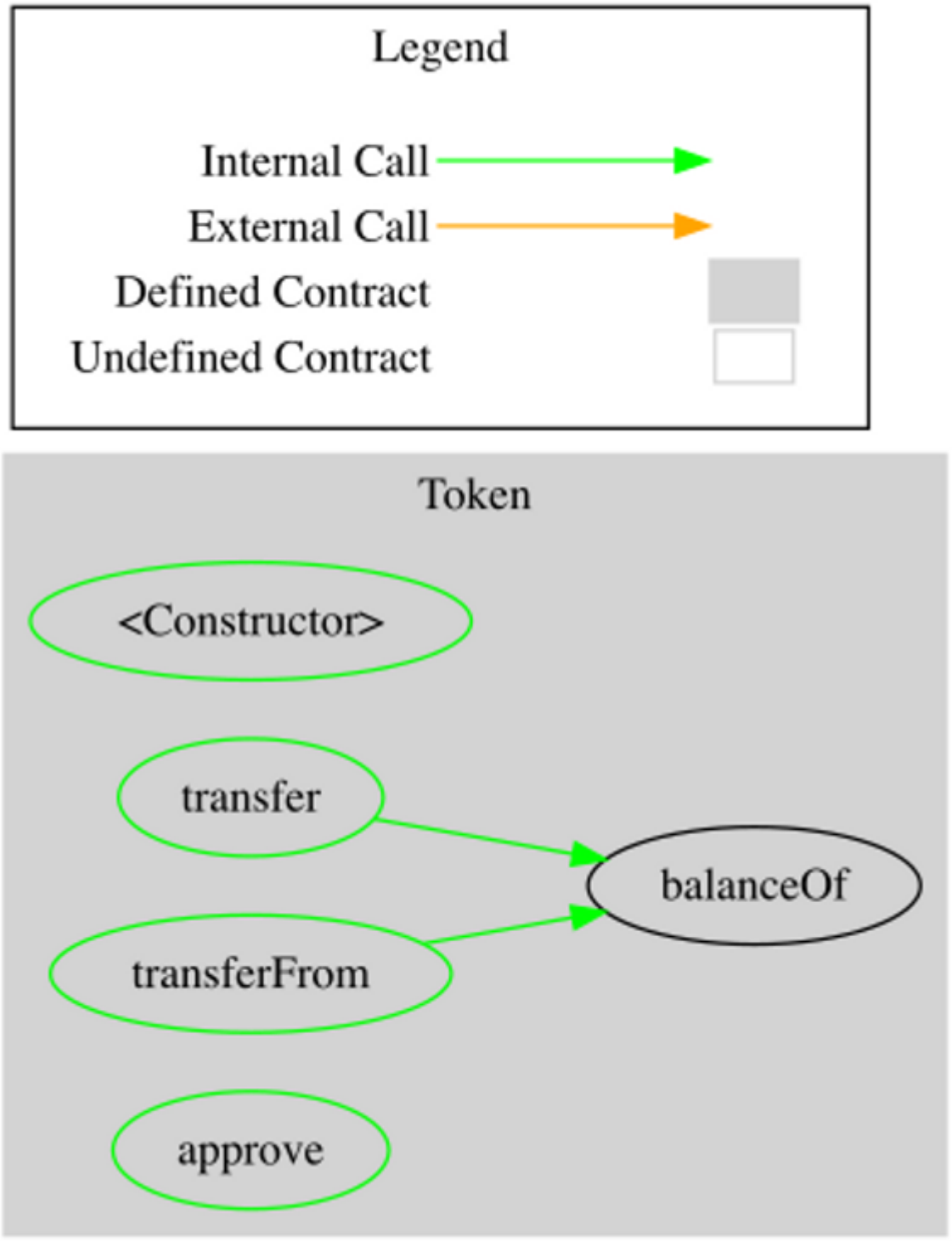
Recommendation

The team is advised to lock the pragma to ensure the stability of the codebase. The locked pragma version ensures that the contract will not be deployed with an unexpected version. An unexpected version may produce vulnerabilities and undiscovered bugs. The compiler should be configured to the lowest version that provides all the required functionality for the codebase. As a result, the project will be compiled in a well-tested LTS (Long Term Support) environment.

Functions Analysis

Contract	Type	Bases		
	Function Name	**Visibility**	**Mutability**	**Modifiers**
Token	Implementation			
		Public	✓	-
	balanceOf	Public	✓	-
	transfer	Public	✓	-
	transferFrom	Public	✓	-
	approve	Public	✓	-

Flow Graph


Legend
Internal Call
External Call
Defined Contract
Undefined Contract
Token
<Constructor>
transfer
balanceOf
transferFrom
approve

Summary

BloxFi contract implements a token mechanism. This audit investigates security issues, business logic concerns and potential improvements. The contract has a critical issue regarding the allowance handling. Read more on the OTUT finding.

Disclaimer

The information provided in this report does not constitute investment, financial or trading advice and you should not treat any of the document's content as such. This report may not be transmitted, disclosed, referred to or relied upon by any person for any purposes nor may copies be delivered to any other person other than the Company without Cyberscope’s prior written consent. This report is not nor should be considered an “endorsement” or “disapproval” of any particular project or team. This report is not nor should be regarded as an indication of the economics or value of any “product” or “asset” created by any team or project that contracts Cyberscope to perform a security assessment. This document does not provide any warranty or guarantee regarding the absolute bug-free nature of the technology analyzed, nor do they provide any indication of the technologies proprietors' business, business model or legal compliance. This report should not be used in any way to make decisions around investment or involvement with any particular project. This report represents an extensive assessment process intending to help our customers increase the quality of their code while reducing the high level of risk presented by cryptographic tokens and blockchain technology.

Blockchain technology and cryptographic assets present a high level of ongoing risk Cyberscope’s position is that each company and individual are responsible for their own due diligence and continuous security Cyberscope’s goal is to help reduce the attack vectors and the high level of variance associated with utilizing new and consistently changing technologies and in no way claims any guarantee of security or functionality of the technology we agree to analyze. The assessment services provided by Cyberscope are subject to dependencies and are under continuing development. You agree that your access and/or use including but not limited to any services reports and materials will be at your sole risk on an as-is where-is and as-available basis Cryptographic tokens are emergent technologies and carry with them high levels of technical risk and uncertainty. The assessment reports could include false positives false negatives and other unpredictable results. The services may access and depend upon multiple layers of third parties.

About Cyberscope

Cyberscope is a blockchain cybersecurity company that was founded with the vision to make web3.0 a safer place for investors and developers. Since its launch, it has worked with thousands of projects and is estimated to have secured tens of millions of investors' funds.

Cyberscope is one of the leading smart contract audit firms in the crypto space and has built a high-profile network of clients and partners.

The Cyberscope team

https://www.cyberscope.io