



Cyberscope

Audit Report

SatinoToken

January 2024

Network BSC

Address 0xfeb1e43c469b8b993b4f3633d37802cfb8227e8e

Audited by © cyberscope

Analysis

● Critical ● Medium ● Minor / Informative ● Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OTUT	Transfers User's Tokens	Passed
●	ELFM	Exceeds Fees Limit	Passed
●	MT	Mints Tokens	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses	Passed

Diagnostics

● Critical ● Medium ● Minor / Informative

Severity	Code	Description	Status
●	L09	Dead Code Elimination	Unresolved
●	L19	Stable Compiler Version	Unresolved

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Review

Contract Name	StandardBEP20
Compiler Version	v0.8.23+commit.f704f362
Optimization	200 runs
Explorer	https://bscscan.com/address/0xfEb1e43c469b8b993b4f3633d37802cfb8227e8e
Address	0xfEb1e43c469b8b993b4f3633d37802cfb8227e8e
Network	BSC
Symbol	STN
Decimals	18
Total Supply	1,000,000,000
Badge Eligibility	Yes

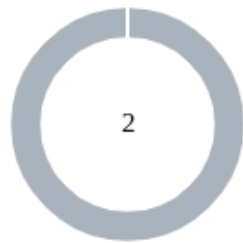
Audit Updates

Initial Audit	08 Jan 2024
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Source Files

Filename	SHA256
StandardBEP20.sol	23bf50a4d4d07cc8d53c62b6b0b0bd9514528fceed5a369243e3454b943544c

Findings Breakdown



● Critical	0
● Medium	0
● Minor / Informative	2

Severity	Unresolved	Acknowledged	Resolved	Other
● Critical	0	0	0	0
● Medium	0	0	0	0
● Minor / Informative	2	0	0	0

L09 - Dead Code Elimination

Criticality	Minor / Informative
Location	StandardBEP20.sol#L657
Status	Unresolved

Description

In Solidity, dead code is code that is written in the contract, but is never executed or reached during normal contract execution. Dead code can occur for a variety of reasons, such as:

- Conditional statements that are always false.
- Functions that are never called.
- Unreachable code (e.g., code that follows a return statement).

Dead code can make a contract more difficult to understand and maintain, and can also increase the size of the contract and the cost of deploying and interacting with it.

```
function _burn(address account, uint256 value) internal {  
    if (account == address(0)) {  
        revert ERC20InvalidSender(address(0));  
    }  
    _update(account, address(0), value);  
}
```

Recommendation

To avoid creating dead code, it's important to carefully consider the logic and flow of the contract and to remove any code that is not needed or that is never executed. This can help improve the clarity and efficiency of the contract.

L19 - Stable Compiler Version

Criticality	Minor / Informative
Location	StandardBEP20.sol#L16,44,145,311,394,422,739,764,785,816,835
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 ^0.8.20;
```

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

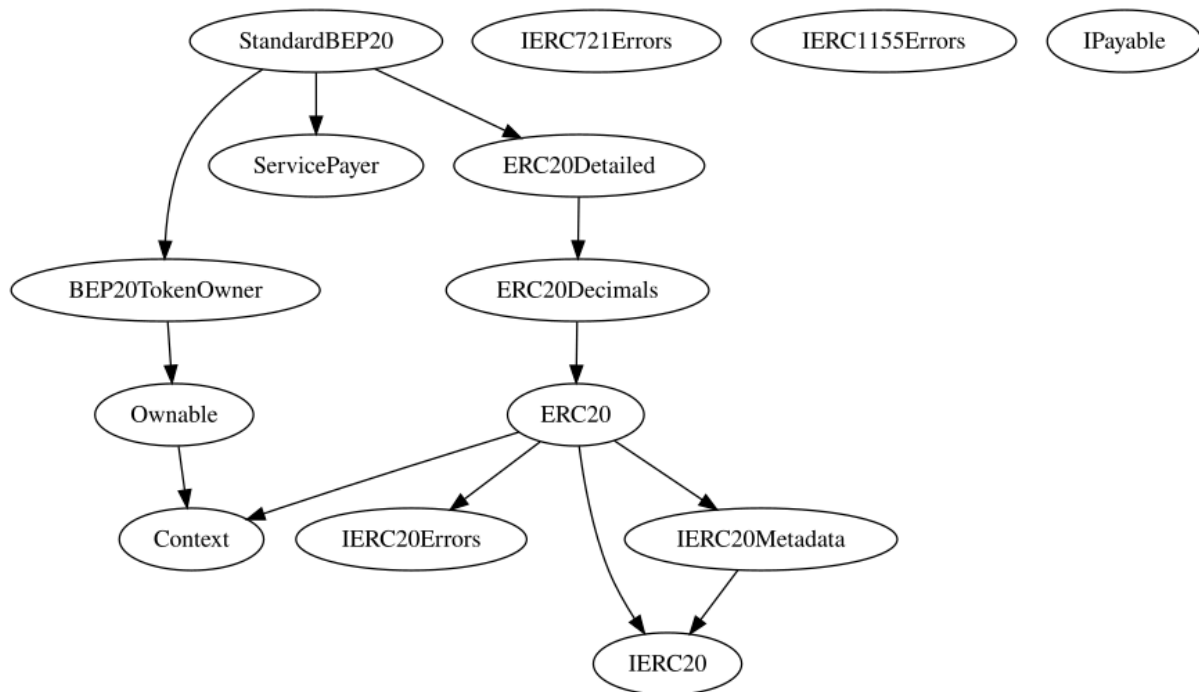
Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
Context	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
Ownable	Implementation	Context		
		Public	✓	-
	owner	Public		-
	_checkOwner	Internal		
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	_transferOwnership	Internal	✓	
IERC20Errors	Interface			
IERC721Errors	Interface			
IERC1155Errors	Interface			

IERC20	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
IERC20Metadata	Interface	IERC20		
	name	External		-
	symbol	External		-
	decimals	External		-
ERC20	Implementation	Context, IERC20, IERC20Meta data, IERC20Error s		
		Public	✓	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	✓	-

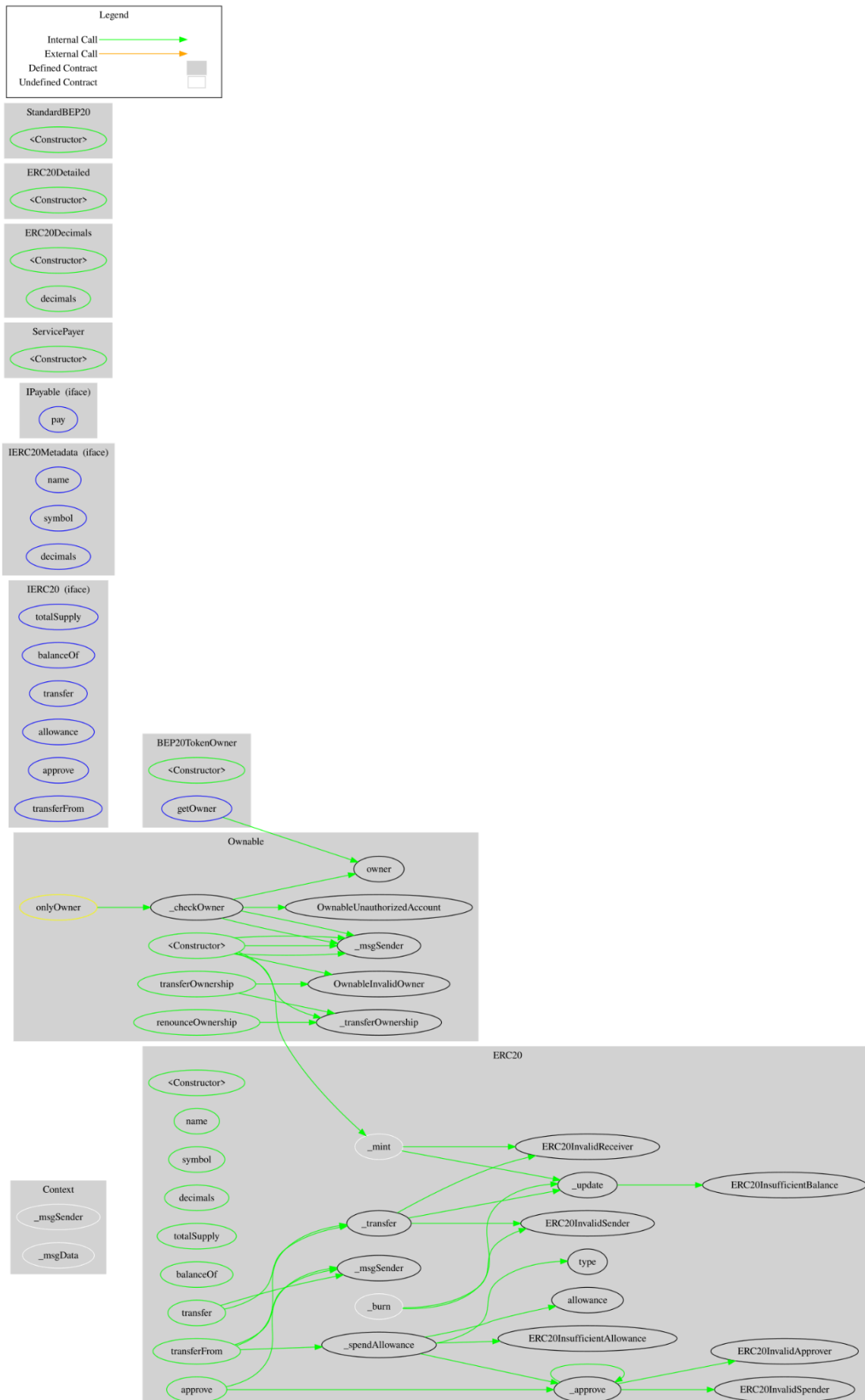
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	_transfer	Internal	✓	
	_update	Internal	✓	
	_mint	Internal	✓	
	_burn	Internal	✓	
	_approve	Internal	✓	
	_approve	Internal	✓	
	_spendAllowance	Internal	✓	
BEP20TokenOwner	Implementation	Ownable		
		Public	✓	Ownable
	getOwner	External		-
IPayable	Interface			
	pay	External	Payable	-
ServicePayer	Implementation			
		Public	Payable	-
ERC20Decimals	Implementation	ERC20		
		Public	✓	-

	decimals	Public		-
ERC20Detailed	Implementation	ERC20Decimals		
		Public	✓	ERC20 ERC20Decimals
StandardBEP20	Implementation	ERC20Detailed, BEP20Token Owner, ServicePayer		
		Public	Payable	ERC20Detailed ServicePayer

Inheritance Graph



Flow Graph



Summary

SatinoToken contract implements a token mechanism. This audit investigates security issues, business logic concerns and potential improvements. SatinoToken is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions.

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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>