



Security Assessment: Block Social Network TOKEN

September 20, 2024







- Audit Status: **Pass**
- Audit Edition: **Advance**
































Risk Analysis

Classifications of Manual Risk Results

Classification	Description
 Critical	Danger or Potential Problems.
 High	Be Careful or Fail test.
 Medium	Pass, Not-Detected or Safe Item.
 Low	Function Detected

Manual Code Review Risk Results

Contract Privilege	Description
 Buy Tax	5%
 Sale Tax	5%
 Cannot Buy	Pass
 Cannot Sale	Pass
 Max Tax	30%
 Modify Tax	Yes
 Fee Check	Pass
 Is Honeypot?	Not Detected
 Trading Cooldown	Not Detected
 Can Pause Trade?	Pass
 Pause Transfer?	Not-Detected
 Max Tx?	Pass
 Is Anti Whale?	Detected
 Is Anti Bot?	Not-Detected

Contract Privilege	Description
 Is Blacklist?	Not-Detected
 Blacklist Check	Pass
 is Whitelist?	Detected
 Can Mint?	Pass
 Is Proxy?	Not Detected
 Can Take Ownership?	Not Detected
 Hidden Owner?	Not-Detected
 Owner	0xc8123E3330e81E41503890f9ba4A3F4BD2eaDaa7
 Self Destruct?	Not Detected
 External Call?	Not-Detected
 Other?	Not Detected
 Holders	2
 Auditor Confidence	Medium
 KYC Present	No
 KYC URL	

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.

Project Overview

Token Summary

Parameter	Result
Address	0x715e2B708BCf22243BA918E47127540D1273a6C4
Name	Block Social Network
Token Tracker	Block Social Network (BSN)
Decimals	18
Supply	100,000,000
Platform	ETHEREUM
compiler	v0.8.24+commit.e11b9ed9
Contract Name	BlockSocialNetwork
Optimization	Yes with 200 runs
LicenseType	MIT
Language	Solidity
Codebase	https://etherscan.io/address/0x715e2B708BCf22243BA918E47127540D1273a6C4#code
Payment Tx	Corporate

Main Contract Assessed Contract Name

Name	Contract	Live
Block Social Network	0x715e2B708BCf22243BA918E47127540D1273a6C4	Yes

TestNet Contract Assessed Contract Name

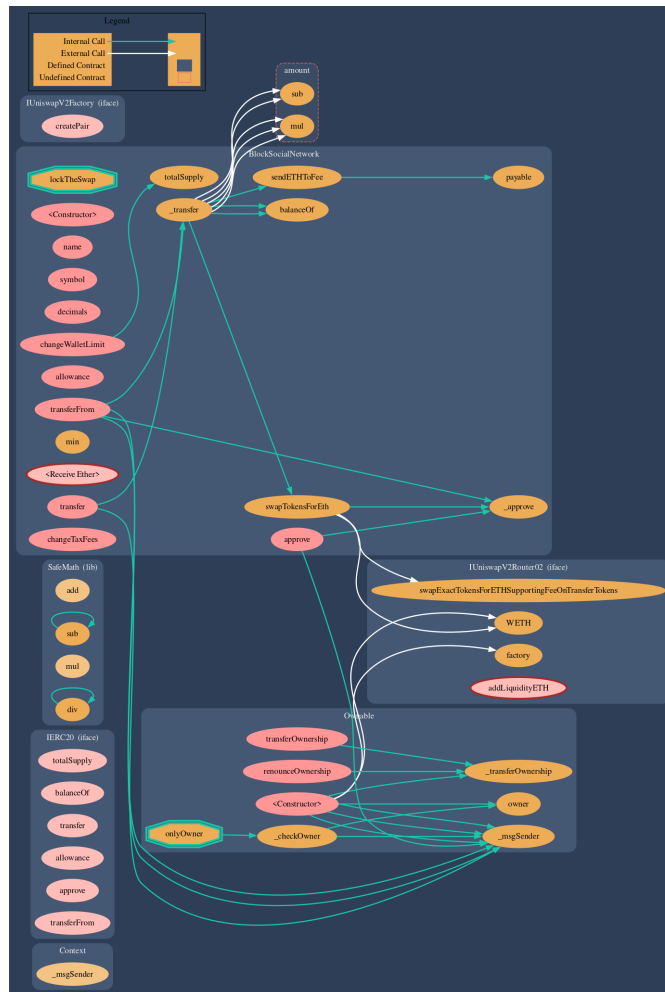
Name	Contract	Live
Block Social Network	0x2947854fa5e71521749E5B8fFD42A84DF95DE3Eb	Yes

Solidity Code Provided

SolidID	File Sha-1	FileName
BlockSocialNetwork	13f731173d246744a821fd5430cab15230ed8230	BlockSocialNetwork.sol
BlockSocialNetwork		
BlockSocialNetwork		
BlockSocialNetwork		
BlockSocialNetwork		
BlockSocialNetwork		

Call Graph

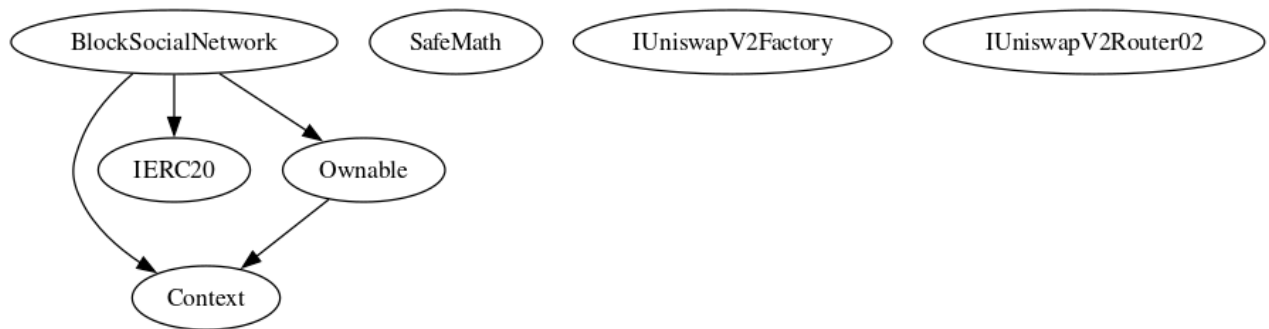
The contract for Block Social Network has the following call graph structure.





Inheritance

The contract for Block Social Network has the following inheritance structure.

The Project has a Total Supply of 100,000,000



BSN-03 | Lack of Input Validation.

Category	Severity	Location	Status
Volatile Code	 Low	BlockSocialNetwork.sol: L: 138 C: 12	 Detected

Description

The given input is missing the check for the non-zero address.

The given input is missing the check for the onlyOwners need to be revisited for require..



Remediation

We advise the client to add the check for the passed-in values to prevent unexpected errors as below:

```
...  
    require(receiver != address(0), "Receiver is the zero address");  
...  
...  
    require(value X limitation, "Your not able to do this function");  
...
```

We also recommend customer to review the following function that is missing a required validation. onlyOwners need to be revisited for require..

BSN-05 | Missing Event Emission.

Category	Severity	Location	Status
Volatile Code	 Low	BlockSocialNetwork.sol: L: 138 C: 12, L: 357 C: 12, L: 362 C: 12,	 Detected



Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes. The linked code does not create an event for the transfer.

Remediation

Emit an event for critical parameter changes. It is recommended emitting events for the sensitive functions that are controlled by centralization roles.

BSN-13 | Extra Gas Cost For User.

Category	Severity	Location	Status
Logical Issue	 Informational	BlockSocialNetwork.sol: L: 340 C: 14	 Detected

Description



The user may trigger a tax distribution during the transfer process, which will cost a lot of gas and it is unfair to let a single user bear it.

Remediation

We advise the client to make the owner responsible for the gas costs of the tax distribution.

Project Action

BSN-14 | Unnecessary Use Of SafeMath

Category	Severity	Location	Status
Logical Issue	 Medium	BlockSocialNetwork.sol: L: 0 C: 0	 Detected

Description

The SafeMath library is used unnecessarily. With Solidity compiler versions 0.8.0 or newer, arithmetic operations

will automatically revert in case of integer overflow or underflow.

library SafeMath {

An implementation of SafeMath library is found.

using SafeMath for uint256;

SafeMath library is used for uint256 type in contract.



Remediation

We advise removing the usage of SafeMath library and using the built-in arithmetic operations provided by the

Solidity programming language

Project Action

BSN-19 | Centralization Privileges of.

Category	Severity	Location	Status
	 Medium	BlockSocialNetwork.sol: L: 393 C: 14,L: 385 C: 14,L: 341 C: 14,L: 306 C: 14,L: 299 C: 14,L: 269 C: 14	 Detected

Description

Centralized Privileges are found on the following functions.






Remediation

undefined






Project Action

Technical Findings Summary

Classification of Risk

Severity	Description
 Critical	Risks are those that impact the safe functioning of a platform and must be addressed before launch. Users should not invest in any project with outstanding critical risks.
 High	Risks can include centralization issues and logical errors. Under specific circumstances, these major risks can lead to loss of funds and/or control of the project.
 Medium	Risks may not pose a direct risk to users' funds, but they can affect the overall functioning of a platform
 Low	Risks can be any of the above but on a smaller scale. They generally do not compromise the overall integrity of the Project, but they may be less efficient than other solutions.
 Informational	Errors are often recommended to improve the code's style or certain operations to fall within industry best practices. They usually do not affect the overall functioning of the code.

Findings

Severity	Found	Pending	Resolved
 Critical	0	0	0
 High	0	0	0
 Medium	2	2	0
 Low	2	2	0
 Informational	1	1	0
Total	5	5	0

Social Media Checks

Social Media	URL	Result
Twitter	https://x.com/0xBlockNet/	Pass
Other		N/A
Website	https://blocknetwork.social/	Pass
Telegram	https://t.me/blocksocialnet	Pass

We recommend to have 3 or more social media sources including a completed working websites.

Social Media Information Notes:

Auditor Notes: undefined

Project Owner Notes:



Assessment Results

Score Results

Review	Score
Overall Score	85/100
Auditor Score	88/100
Review by Section	Score
Manual Scan Score	30
Auto Scan Score	37
Advance Check Score	18

The Following Score System Has been Added to this page to help understand the value of the audit, the maximum score is 100, however to attain that value the project must pass and provide all the data needed for the assessment. Our Passing Score has been changed to 84 Points for a higher standard, if a project does not attain 85% is an automatic failure. Read our notes and final assessment below.

Audit Passed



Assessment Results

Important Notes:

- **Code Structure:** Code is well-structured and follows standard ERC20 practices. Uses SafeMath for arithmetic operations, mitigating overflow risks.␣
- **Ownership and Control:** Owner has significant control over fees and wallet limits. Consider implementing a time-lock or multi-signature for critical functions.␣
- **Fee Mechanism:** High maximum fees (up to 30%) can be set, which could deter users. Ensure fee changes are communicated transparently to users.␣
- **Liquidity and Swap Functions:** Relies on Uniswap for liquidity operations. Ensure proper testing of swap functionality to prevent slippage issues.␣
- **Security Practices:** Uses lockTheSwap modifier to prevent reentrancy during swaps. Consider additional reentrancy guards for other critical functions.␣
- **Gas Optimization:** Review _transfer function for potential gas savings. Consider caching balanceOf results where applicable.␣
- **Testing and Verification:** Ensure comprehensive testing, especially around edge cases for tax and wallet limits.␣
- **Documentation:** Consider adding more comments for clarity on complex logic. Ensure documentation is up-to-date with any changes.

Auditor Score =88
Audit Passed



Appendix

Finding Categories

Centralization / Privilege

Centralization / Privilege findings refer to either feature logic or implementation of components that act against the nature of decentralization, such as explicit ownership or specialized access roles in combination with a mechanism to relocate funds.

Gas Optimization

Gas Optimization findings do not affect the functionality of the code but generate different, more optimal EVM opcodes resulting in a reduction on the total gas cost of a transaction.

Logical Issue

Logical Issue findings detail a fault in the logic of the linked code, such as an incorrect notion on how `block.timestamp` works.

Control Flow

Control Flow findings concern the access control imposed on functions, such as owner-only functions being invoke-able by anyone under certain circumstances.

Volatile Code

Volatile Code findings refer to segments of code that behave unexpectedly on certain edge cases that may result in a vulnerability.

Coding Style

Coding Style findings usually do not affect the generated byte-code but rather comment on how to make the codebase more legible and, as a result, easily maintainable.

Inconsistency

Inconsistency findings refer to functions that should seemingly behave similarly yet contain different code, such as a constructor assignment imposing different requirements on the input variables than a setter function.

Coding Best Practices

ERC 20 Coding Standards are a set of rules that each developer should follow to ensure the code meets a set of criteria and is readable by all the developers.

Disclaimer

Assure Defi has conducted an independent security assessment to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the reviewed code for the scope of this assessment. This report does not constitute agreement, acceptance, or advocacy for the Project, and users relying on this report should not consider this as having any merit for financial advice in any shape, form, or nature. The contracts audited do not account for any economic developments that the Project in question may pursue, and the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude, and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are entirely free of exploits, bugs, vulnerabilities or deprecation of technologies.

All information provided in this report does not constitute financial or investment advice, nor should it be used to signal that any persons reading this report should invest their funds without sufficient individual due diligence, regardless of the findings presented. Information is provided 'as is, and Assure Defi is under no covenant to audited completeness, accuracy, or solidity of the contracts. In no event will Assure Defi or its partners, employees, agents, or parties related to the provision of this audit report be liable to any parties for, or lack thereof, decisions or actions with regards to the information provided in this audit report.

The assessment services provided by Assure Defi are subject to dependencies and are under continuing development. You agree that your access 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 with high levels of technical risk and uncertainty. The assessment reports could include false positives, negatives, and unpredictable results. The services may access, and depend upon, multiple layers of third parties.

