SOLIDProof

Bring trust into your projects

Blockchain Security | Smart Contract Audits | KYC Development | Marketing

MADE IN GERMANY

WW3SHIBAToken

AUDIT

SECURITY ASSESSMENT

19 June, 2024

for

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Introduction

SolidProof.io is a brand of the officially registered company FutureVisions Deutschland, based in Germany. We're mainly focused on Block-chain Security such as Smart Contract Audits and KYC verification for project teams. Solidproof.io assess potential security issues in the smart contracts implementations, review for potential inconsistencies between the code base and the whitepaper/documentation, and provide suggestions for improvement.

Disclaimer

SolidProof.io reports are not, nor should be considered, an "endorsement" or "disapproval" of any particular project or team. These reports are not, nor should be considered, an indication of the economics or value of any "product" or "asset" created by any team. SolidProof.io do not cover testing or auditing the integration with external contract or services (such as Unicrypt, Uniswap, Pancake-Swap etc'...)

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SolidProof.io Reports represent an extensive auditing 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. SolidProof's position is that each company and individual are responsible for their own due diligence and continuous security. SolidProof in no way claims any guarantee of security or functionality of the technology we agree to analyze.

Project Overview

Summary

Project Name	WW3SHIBAToken
Website	https://ww3shiba.com
About the Project	N/A
Chain	Ethereum
Language	Solidity
Codebase	0x267b6edc49a40825cd0cdac20003633384639140
Commit	N/A
Unit Tests	N/A

Social Medias

Telegram	http://t.me/WW3SHIBA
Twitter	https://x.com/WW3SHIBA
Facebook	https://www.facebook.com/people/Ww3shiba/61559843667105/
Instagram	N/A
GitHub	N/A
Reddit	N/A
Medium	N/A
Discord	N/A
YouTube	N/A
TikTok	N/A
LinkedIn	https://www.linkedin.com/company/ww3shiba
CoinMarketCap	N/A

Audit Summary

Version	Delivery Date	Change Log
v1.0	19 June, 2024	• Layout Project • Automated/Manual-Security Review • Summary

Note - The following audit report presents a comprehensive security analysis of the smart contract utilized in the project. This analysis did not include functional testing (or unit testing) of the contract's logic. We cannot guarantee 100% logical correctness of the contract as it was not functionally tested by us.

File Overview

The Team provided us with the files that should be tested in the security assessment. This audit covered the following files listed below with a SHA-1 Hash.

1. see codebase

Please note: Files with a different hash value than in this table have been modified after the security check, either intentionally or unintentionally. A different hash value may (but need not) be an indication of a changed state or potential vulnerability that was not the subject of this scan.

Imported packages

Used code from other Frameworks/Smart Contracts (direct imports).

1. see codebase

Please note: Files with a different hash value than in this table have been modified after the security check, either intentionally or unintentionally. A different hash value may (but need not) be an indication of a changed state or potential vulnerability that was not the subject of this scan.

Audit Information

Vulnerability & Risk Level

Risk represents the probability that a certain source-threat will exploit vulnerability, and the impact of that event on the organization or system. Risk Level is computed based on CVSS version 3.0.

Level	Value	Vulnerability	Risk (Required Action)
Critical	9 - 10	A vulnerability that can disrupt the contract functioning in a number of scenarios, or creates a risk that the contract may be broken.	Immediate action to reduce risk level.
High	7 - 8.9	A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.	Implementation of corrective actions as soon as possible.
Medium	4 - 6.9	A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.	Implementation of corrective actions in a certain period.
Low	2 - 3.9	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.	Implementation of certain corrective actions or accepting the risk.
Informational	0 - 1.9	A vulnerability that have informational character but is not effecting any of the code.	An observation that does not determine a level of risk.

Auditing Strategy and Techniques Applied

Throughout the review process, care was taken to check the repository for security- related issues, code quality, and compliance with specifications and best practices. To this end, our team of experienced pen-testers and smart contract developers reviewed the code line by line and documented any issues discovered. We check every file manually. We use automated tools only so that they help us achieve faster and better results.

Methodolgy

The auditing process follows a routine series of steps:

1. Code review that includes the following:
    a. Reviewing the specifications, sources, and instructions provided to SolidProof to ensure we understand the size, scope, and functionality of the smart contract.
    b. Manual review of the code, i.e., reading the source code line by line to identify potential vulnerabilities.
    c. Comparison to the specification, i.e., verifying that the code does what is described in the specifications, sources, and instructions provided to SolidProof.
2. Testing and automated analysis that includes the following:
    a. Test coverage analysis, which determines whether test cases actually cover code and how much code is executed when those test cases are executed.
    b. Symbolic execution, which is analysing a program to determine what inputs causes each part of a program to execute.
3. Review best practices, i.e., review smart contracts to improve efficiency, effectiveness, clarity, maintainability, security, and control based on best practices, recommendations, and research from industry and academia.
4. Concrete, itemized and actionable recommendations to help you secure your smart contracts.

Overall Security

Medium or higher issues

No critical issues found	✅ Contract is safe to deploy
Description	The contract does not contain issues of high or medium criticality. This means that no known vulnerabilities were found in the source code.
Comment	N/A

Upgradeability

Contract is not upgradeable	✅ Deployer cannot add new functionalites
Description	The contract is not an upgradeable contract. The deployer is not able to change or add any functionalities to the contract after deploying.
Comment	N/A

Ownership

The Ownership is not renounced	✗ Ownership not renounced
Description	The owner has not renounced the ownership that means that the owner retains control over the contract's operations, including the ability to execute functions that may impact the contract's users or stakeholders. This can lead to several potential issues, including: • Centralizations • The Owner has significant control over contract's operations
Example	N/A
Comment	N/A

Note - If the contract is not deployed then we would consider the ownership to be not renounced. Moreover, if there are no ownership functionalities then the ownership is automatically considered renounced. The ownership includes also different roles if implemented.

Ownership Privileges

These functions can be dangerous. Please note that abuse can lead to financial loss. We have a guide where you can learn more about these Functions.

Minting tokens

Minting tokens refers to the process of creating new tokens in a cryptocurrency or blockchain network. This process is typically performed by the project's owner or a designated authority, who has the ability to add new tokens to the network's total supply.

Contract owner can mint new tokens	✗ **The owner can mint new Tokens**
Description	Owners who have the ability to mint new tokens can increase the total supply of a token with out recognition and approval of other holders.
Example	If investors drive up the token price, the owner may choose to mint new tokens and sell them on a cryptocurrency exchange to raise funds. If the owner is not transparent and honest about their actions, they may be attempting a rug-pull, where they suddenly abandon the project after raising funds, leaving investors with worthless tokens. This can lead to a decrease in the value of existing tokens, potentially rendering them worthless, and causing investors to suffer losses. It is essential for investors to carefully research the project and its developers and exercise caution before investing in any cryptocurrency or DeFi project.
Comment	Minter Role can mint new tokens

Burning tokens

Burning tokens is the process of permanently destroying a certain number of tokens, reducing the total supply of a cryptocurrency or token. This is usually done to increase the value of the remaining tokens, as the reduced supply can create scarcity and potentially drive up demand.

Contract owner cannot burn tokens	✅ **The owner cannot burn tokens**
Description	The owner is not able burn tokens without any allowances.
Comment	N/A

Blacklist addresses

Blacklisting addresses in smart contracts is the process of adding a certain address to a blacklist, effectively preventing them from accessing or participating in certain functionalities or transactions within the contract. This can be useful in preventing fraudulent or malicious activities, such as hacking attempts or money laundering.

Contract Owner cannot blacklist addresses	✅ **The owner cannot blacklist addresses**
Description	The owner is not able blacklist addresses to lock funds.
Comment	N/A

Fees and Tax

In some smart contracts, the owner or creator of the contract can set fees for certain actions or operations within the contract. These fees can be used to cover the cost of running the contract, such as paying for gas fees or compensating the contract's owner for their time and effort in developing and maintaining the contract.

Contract owner cannot set fees more than 25%	✅ **The owner cannot set fees more than 25%**
Description	The owner cannot set fees of more then 25%
Comment	No fees or taxes are implemented

Lock User Funds

In a smart contract, locking refers to the process of restricting access to certain tokens or assets for a specified period of time. When tokens or assets are locked in a smart contract, they cannot be transferred or used until the lock-up period has expired or certain conditions have been met.

Contract owner can lock the contract	✗ **The owner can lock the contract**
Description	Locking the contract means that the owner is able to lock any funds of addresses that they are not able to transfer bought tokens anymore.
Example	An example of locking is by pausing the contract or blacklisting any addresses. That causes that the stakeholders can not transfer (buy/sell) anymore.
Comment	The pauser role can stop token transfers until the presale ends.

Components

Contracts	Libraries	Interfaces	Abstract
1	0	0	0

Exposed Functions

This section lists functions that are explicitly declared public or payable. Please note that getter methods for public stateVars are not included.

Public	Payable
3	0

External	Internal	Private	Pure	View
1	4	0	0	0

External/public functions are functions that can be called from outside of a contract, i.e., they can be accessed by other contracts or externally owned accounts on the blockchain. These functions are specified using the function declaration's external or public visivbility modifier.

State Variables

Total	Public
1	1

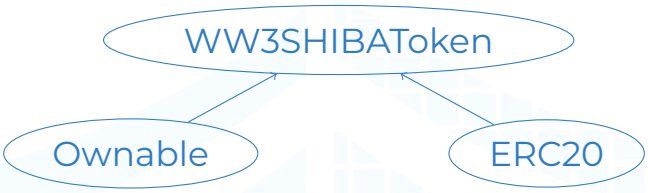
State variables are variables that are stored on the blockchain as part of the contract's state. They are declared at the contract level and can be accessed and modified by any function within the contract. State variables can be defined with a visibility modifier such as public private or internal, which determines the access level of the variable.

Capabilities

Solidity Versions Observed	Transfers ETH	Can receive funds	Uses Assembly	Has destroyable Contracts
0.8.18	0	0	0	0

Inheritance Graph

An inheritance graph is a graphical representation of the inheritance hierarchy among contracts. In object-oriented programming, inheritance is a mechanism that allows one class (or contract, in the case of solidity) to inherit properties and methods from another class. It shows the relationships between different contracts and how they are related to each other through inheritance.



Centralization Privileges

Centralization can arise when one or more parties have privileged access or control over the contract's functionality, data, or decision-making. This can occur, for example, if the contract is controlled by a single entity or if certain participants have special permissions or abilities that others do not.

In the project there are authorities that has the authority over the following functions:

File/Role	Privileges
Main {Minter Role}	Mint new token
Main {Pauser Role}	pause/unpause transfer

Recommendations

To avoid potential hacking risks, it is advisable for the client to manage the private key of the privileged account with care. Additionally, we recommend enhancing the security practices of centralized privileges or roles in the protocol through a decentralized mechanism or smart- contract-based accounts, such as multi-signature wallets.

Here are some suggestions what the client can do.

- Consider using multi-signature wallets: Multi-signature wallets require multiple parties to sign off on a transaction before it can be executed, providing an extra layer of security e.g. Gnosis Safe
- Use of a timelock at least with a latency of e.g. 48-72 hours for awareness on privileged operations

- Introduce a DAO/Governance/Voting module to increase transperancy and user involvement
- Consider Renouncing the ownership so that the owner cannot modify any state variables of the contract anymore. Make sure to set up everything before renouncing.

Audit Results

Critical issues

No critical issues

High issues

No high issues

Medium issues

#1 | Mint new tokens

File	Severity	Location	Status
ERC20Pre-setMinter-Pauser.sol	medium	L54-57	open

Description - The MINTER_ROLE is able to mint new tokens, which gives the possiblity to mint new tokens also to the owner.

#2 | Pausable transfer

File	Severity	Location	Status
WW3SHIBAToken.sol	medium	L27-33	open

Description - The PAUSER_ROLE is able to pause the token transfers until the presale ends, which means that no user is able to transfer tokens, which includs also buying and selling

Low issues

No low issues

Informational issues

No informational issues			
#1 | Missing NatSpec Documentation			
File	**Severity**	**Location**	**Status**
Main	**informational**	–	**open**

Description - The contract misses a good documentation of each function.

Legend for the Issue Status

Attribute or Symbol	Meaning
Open	The issue is not fixed by the project team.
Fixed	The issue is fixed by the project team.
Acknowledged(ACK)	The issue has been acknowledged or declared as part of business logic.

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