https://contractchecker.app/

Contract Checker

SMART CONTRACT SECURITY AUDIT OF:

SAFE PLUS TOKEN APP

Project Summary

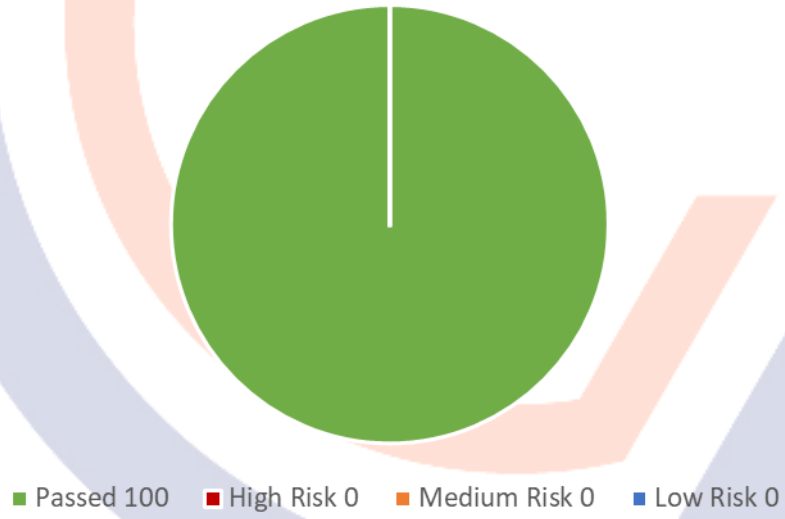
Project Name	SAFE PLUS TOKEN APP
APP Link	https://safeplustoken.app/
BNB Contract	0xF349dAc9BE6597bE554869899438d15C20C443c3
SAFEMOON Contract	0x0406998f764635FF8E01d3344fDb89bB981ba73A
BUSD Contract	0xd3d052A9c15d2c63Bb5111219053C9dACb932cC2

Audit Result

✓ SAFE PLUS TOKEN APP has successfully **PASSED** the security audit

CC Score

100



(Other unknown security vulnerabilities are not included in the audit responsibility scope)

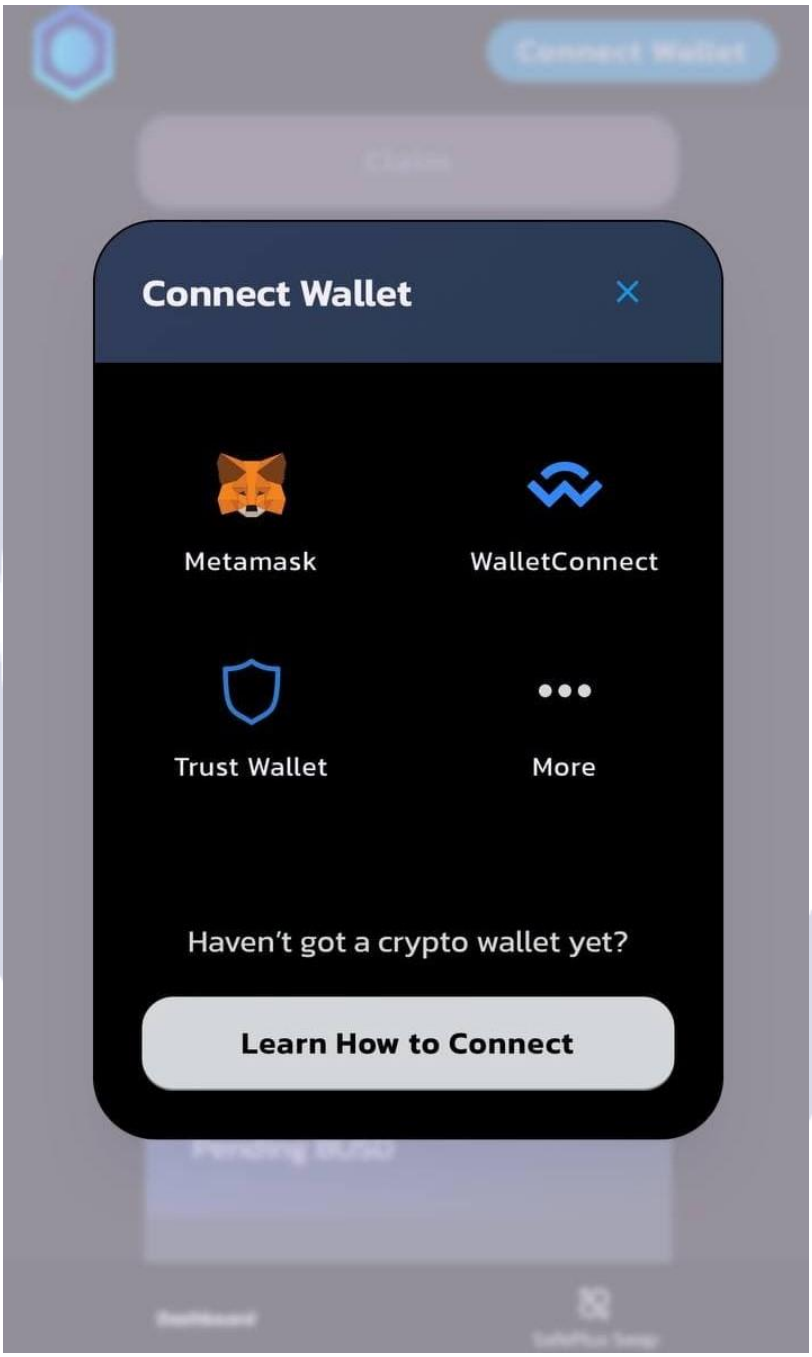
Audit Result:	**PASSED**
Audit Date:	January 14, 2022
Audit Team:	CONTRACTCHECKER

Functionality Analysis

Dashboard

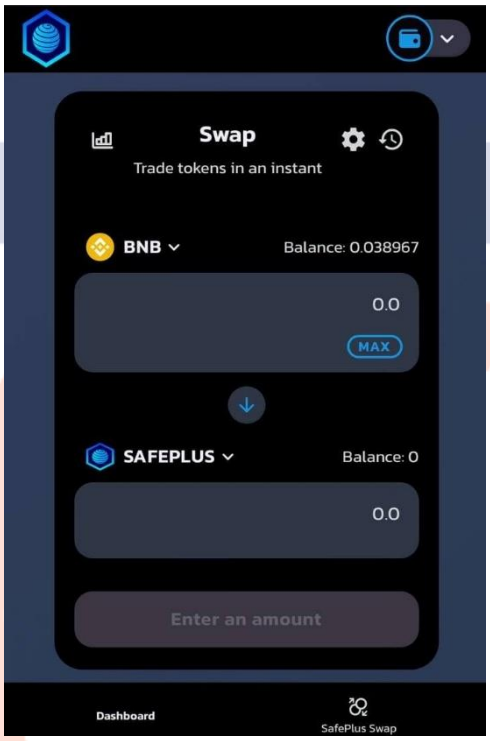
Wallet Connect

Wallet Connect function is working properly with fast connection establishment speed



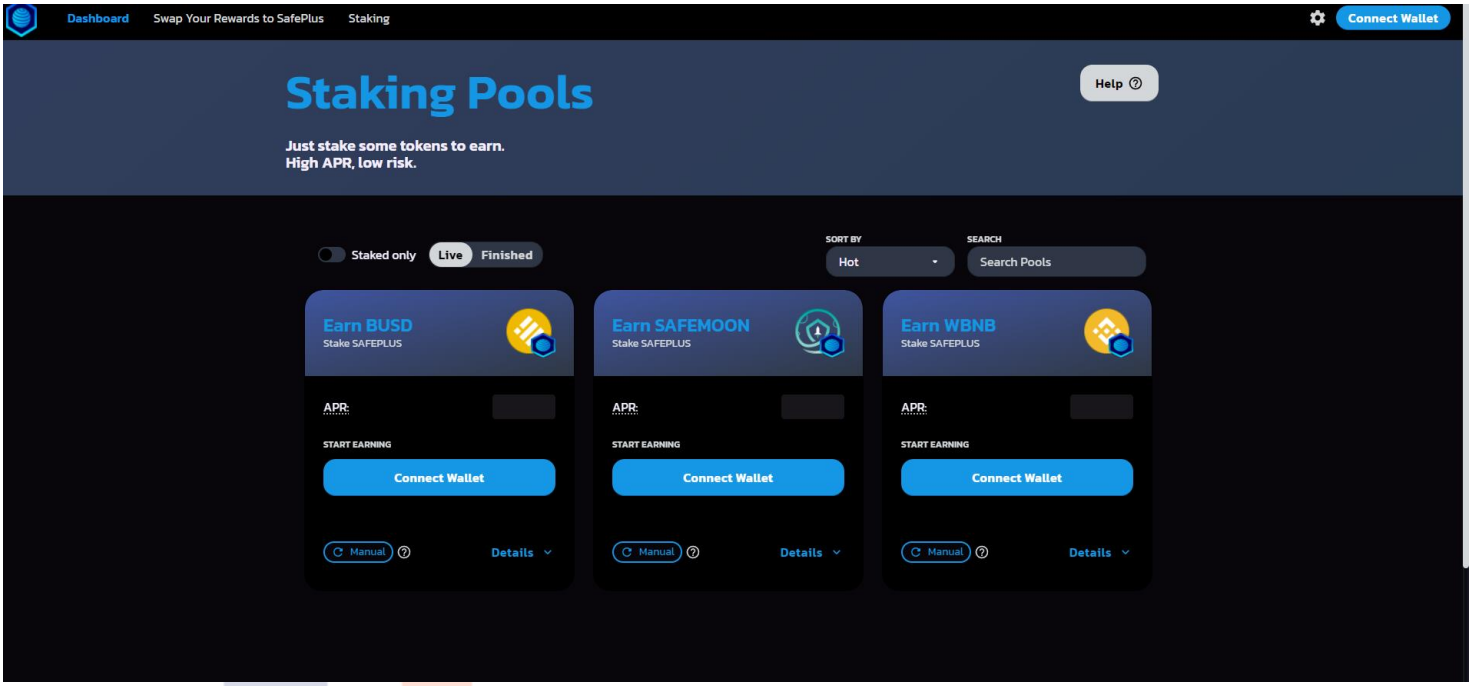
Exchange

Exchange functions are working properly and easy to operate



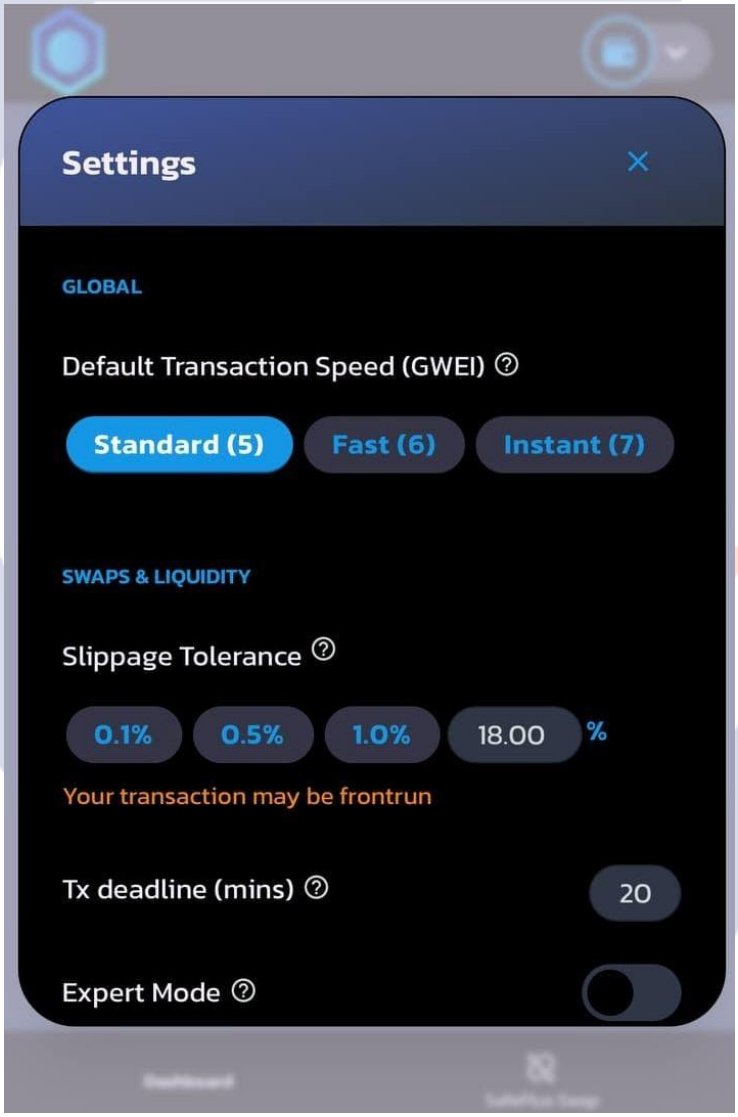
Staking

Staking function is available and working properly



Settings

Settings menu is functioning properly and easy to use



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SUMMARY

CONTRACTCHECKER received an application for DAPP security audit of SAFE PLUS TOKEN APP on December 28, 2021, from the project team to discover if any vulnerability in the functionality of the SAFE PLUS TOKEN DAPP project. Standard tests have been performed using Static Analysis and Manual Review techniques.

The auditing process focuses to the following considerations with collaboration of an expert team

- Functionality test to determine if proper logic has been followed throughout the whole process.
- Manually detailed examination of the code line by line by experts.
- Live test by multiple clients using Testnet.
- Analysing failure preparations to check how App performs in case of any bugs and vulnerabilities.
- Checking whether all the libraries used in the code are on the latest version.
- Analysing the security of the on-chain data.

OVERWIEW

This Audit Report mainly focuses on overall security of SAFE PLUS TOKEN APP. Contractchecker team scanned the application and assessed overall system architecture and vulnerabilities, exploits, hacks, and back-doors to ensure its reliability and correctness.

Auditing Approach and Applied Methodologies

Contractchecker team has performed rigorous test procedures of the project

- Code design patterns analysis in which architecture is reviewed to ensure it is structured according to industry standards.
- Line-by-line inspection to find any potential vulnerability
- Unit testing Phase, we coded/conducted custom unit tests written for each function to verify that each function works as expected.

- Automated Test performed with our in-house developed tools to identify vulnerabilities and security flaws.

The focus of the audit was to verify that the APP System is secure, resilient, and working according to the specifications. The audit activities can be grouped in the following three categories:

Security
Identifying security related issues within functionalities.

Sound Architecture
Evaluation of the architecture of this system through the lens of APP best practices and general software best practices.

Code Correctness and Quality
A full review of the source code. The primary areas of focus include:

- Accuracy
- Readability
- Sections of code with high complexity
- Quantity and quality of test coverage

Risk Classification
Vulnerabilities are classified in 3 main levels as below based on possible effect to the DAPP functionality.

High level vulnerability
Vulnerabilities on this level must be fixed immediately as they might lead to fund and data loss and open to manipulation. Any High-level finding will be highlighted with **RED** text

Medium level vulnerability
Vulnerabilities on this level also important to fix as they have potential risk of future exploit and manipulation. Any Medium-level finding will be highlighted with **ORANGE** text

Low level vulnerability
Vulnerabilities on this level are minor and may not affect the functions execution. Any Low-level finding will be highlighted with **BLUE** text

Manual Audit:
For this section the code was tested/read line by line by our developers. Additionally, Remix IDE's JavaScript VM and Kovan networks used to test the functionality.

SWC Attack Test

BNB Contract 0xF349dAc9BE6597bE554869899438d15C20C443c3

SWC ID	Description	Test Result
SWC-101	Integer Overflow and Underflow	Passed
SWC-102	Outdated Compiler Version	Passed
SWC-103	Floating Pragma	Passed
SWC-104	Unchecked Call Return Value	Passed
SWC-105	Unprotected Ether Withdrawal	Passed
SWC-106	Unprotected SELFDESTRUCT Instruction	Passed
SWC-107	Re-entrancy	Passed
SWC-108	State Variable Default Visibility	Passed
SWC-109	Uninitialized Storage Pointer	Passed
SWC-110	Assert Violation	Passed
SWC-111	Use of Deprecated Solidity Functions	Passed
SWC-112	Delegate Call to Untrusted Callee	Passed
SWC-113	DoS with Failed Call	Passed
SWC-114	Transaction Order Dependence	Passed
SWC-115	Authorization through tx.origin	Passed
SWC-116	Block values as a proxy for time	Passed
SWC-117	Signature Malleability	Passed
SWC-118	Incorrect Constructor Name	Passed
SWC-119	Shadowing State Variables	Passed
SWC-120	Weak Sources of Randomness from Chain Attributes	Passed
SWC-121	Missing Protection against Signature Replay Attacks	Passed
SWC-122	Lack of Proper Signature Verification	Passed
SWC-123	Requirement Violation	Passed
SWC-124	Write to Arbitrary Storage Location	Passed
SWC-125	Incorrect Inheritance Order	Passed
SWC-126	Insufficient Gas Griefing	Passed
SWC-127	Arbitrary Jump with Function Type Variable	Passed
SWC-128	DoS With Block Gas Limit	Passed
SWC-129	Typographical Error	Passed
SWC-130	Right-To-Left-Override control character (U+202E)	Passed
SWC-131	Presence of unused variables	Passed
SWC-132	Unexpected Ether balance	Passed
SWC-133	Hash Collisions With Multiple Variable Length Arguments	Passed
SWC-134	Message call with hardcoded gas amount	Passed
SWC-135	Code With No Effects (Irrelevant/Dead Code)	Passed
SWC-136	Unencrypted Private Data On-Chain	Passed

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Automated Audit

Automated Audit is not in scope of standard audit process

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on DAPP, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the DAPP alone. No applications or operations were reviewed for security. No product code has been reviewed.