

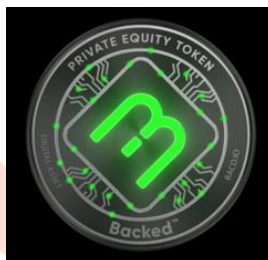


<https://contractchecker.app/>



Contract Checker

SMART CONTRACT SECURITY AUDIT OF: BACD TOKEN



Audit Result

Smart contract of BACD TOKEN is using a proxy upgradable contract and has 7 types of privileges. We strongly recommend explanations written in "Findings" part to be considered carefully.

Audited token contract address at the date of audit is:

[0xA20e255753EDf52a7327c73eE03533fA605520ad](#), and this report will not cover any further contract version that might be updated using proxy function

✓ BACD TOKEN has PASSED the smart contract audit

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

Audit Result:

Passed

Ownership:

Not Renounced Yet

KYC Verification:

N/A at the date of report edition

Audit Date:

April 14, 2022

Audit Team:

CONTRACTCHECKER

Findings

Privileges of Proxy Admin

Proxy admin can change the Smart Contract and create a new version of it

Privileges of Default Admin Role

This role can grant any role to any account

Privileges of Minter Role

This role can mint any amount of token to any account

Privileges of Burner Role

This role can burn any amount of tokens from any account

Privileges of Adjfee Role

This role can change fees up to 100%

Also, can exclude accounts from fees

Privileges of Pauser Role

This role can pause and un-pause trading

Privileges of Control Role

This role can enable and disable anti bot

Important Notice for Investors

As ContractChecker team we are mainly auditing the contract code to find out how it will be functioning, and risks which are hidden in the code if any.

There are many factors must be taken into consideration before investing to a project, like: ownership status, project team approach, marketing, general market condition, liquidity, token holdings etc.

Investors must always do their own research and manage their risk considering different factors which can affect the success of a project.

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SUMMARY

CONTRACTCHECKER received an application for smart contract security audit of BACD TOKEN on April 12, 2022, from the project team to discover if any vulnerability in the source code of the BACD TOKEN project as well as any contract dependencies. 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 of the Smart Contract 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 the Smart Contract 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.

Project Summary

Project Name	BACD
Web Site	https://www.bacd.io/
Vimeo	https://vimeo.com/user153937645
Telegram	https://t.me/BACDcommunity
Instagram	https://www.instagram.com/bacd.official/
Facebook	https://www.facebook.com/backedtoken
Platform	Binance Smart Chain
Token Type	BEP20
Language	Solidity
Platforms & Tools	Remix IDE, Truffle, Truffle Team, Ganache, Solhint, VScode, Mythril, Contract Library
Contract address	0xc96Ebbc3b3158aAb69312e89fe04C9Cd192BeE01
Link Address	https://bscscan.com/token/0xc96Ebbc3b3158aAb69312e89fe04C9Cd192BeE01

OVERVIEW

This Audit Report mainly focuses on overall security of BACD TOKEN Smart Contract. ContractChecker team scanned the contract and assessed overall system architecture and the smart contract codebase against vulnerabilities, exploitations, 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 smart contract architecture is reviewed to ensure it is structured according to industry standards and safe use of third-party smart contracts and libraries.
- Line-by-line inspection of the Smart Contract to find any potential vulnerability like race conditions, transaction-ordering dependence, timestamp dependence, and denial of service attacks.
- Unit testing Phase, we coded/conducted custom unit tests written for each function in the contract to verify that each function works as expected.
- Automated Test performed with our in-house developed tools to identify vulnerabilities and security flaws of the Smart Contract.

The focus of the audit was to verify that the Smart Contract 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 each contract and the system of contract.

Sound Architecture

Evaluation of the architecture of this system through the lens of established smart contract best practices and general software best practices.

Code Correctness and Quality

A full review of the contract 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 contract.

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 smart contract execution. Any Low-level finding will be highlighted with **BLUE** text

Vulnerability Checklist

Nº	Description.	Result
1	Compiler warnings.	Passed
2	Race conditions and Re-entrancy. Cross-function race conditions.	Passed
3	Possible delays in data delivery.	Passed
4	Oracle calls.	Passed
5	Front running.	Passed
6	Timestamp dependence.	Passed
7	Integer Overflow and Underflow.	Passed
8	DoS with Revert.	Passed
9	DoS with block gas limit.	Passed
10	Methods execution permissions.	Passed
11	Economy model.	Passed
12	The impact of the exchange rate on the logic.	Passed
13	Private user data leaks.	Passed
14	Malicious Event log.	Passed
15	Scoping and Declarations.	Passed
16	Uninitialized storage pointers.	Passed
17	Arithmetic accuracy.	Passed
18	Design Logic.	Passed
19	Cross-function race conditions.	Passed
20	Safe Zeppelin module.	Passed
21	Fallback function security.	Passed

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 contract functionality.

Smart Contract SWC Attack Test

SWC attack test is not in scope of standard audit process

Automated Audit

Remix Compiler Warnings

It throws warnings by Solidity's compiler. No issues found.

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 smart contracts, the details of which are set out in this report. 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 based on 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 smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.