

CFG NINJA AUDITS

Security Assessment

Aniwar Token Token

January 11, 2023



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Assessment Summary

This report has been prepared for Aniwar Token Token on the Binance network. CFGNINJA provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.
- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders
- Thorough line-by-line manual review of the entire codebase by industry experts.





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.	
Major	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	
Minor	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
Major	1	1	0
Medium	0	0	0
Minor	1	1	0
Informational	0	0	0
Total	2	0	0





Project Overview

Token Summary

Parameter	Result
Address	
Name	Aniwar Token
Token Tracker	Aniwar Token (ANIW)
Decimals	18
Supply	1,000,000,000
Platform	Binance
compiler	0.8.10
Contract Name	AniwarToken
Optimization	Yes with 200 runs
LicenseType	MIT
Language	Solidity
Codebase	https://bscscan.com/address/
Payment Tx	0x9e1f9a910cb661d12e648ac2fadc57cfe02935636c2ba82b69 dce5b5723a19c0





Project Overview

Risk Analysis Summary

Parameter	Result
Buy Tax	1%
Sale Tax	1%
Is honeypot?	Clean
Can edit tax?	No
Is anti whale?	No
Is blacklisted?	No
Is whitelisted?	No
Holders	0
Confidence Level	Low

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.





MainNet Contract was Not Assessed

TestNet Contract was Not Assessed

Solidity Code Provided

SoliD	File Sha-1	FileName
AniwarToken	6406777983982431a2c1637cb9406de824fa4c53	3 AniwarToken.sol





Mint Check

The project owners of Aniwar Token do not have a mint function in the contract, owner cannot mint tokens after initial deploy.

The Project has a Total Supply of 1,000,000,000 and cannot mint any more than the Max Supply.

Mint Notes:

Auditor Notes:

Project Owner Notes:









Fees Check

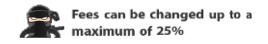
The project owners of Aniwar Token do not have the ability to set fees higher than 25%.

The team May have fees defined; however, they can't set those fees higher than 25% or may not be able to configure the same.

Tax Fee Notes:

Auditor Notes: The contract currently has 0% buy and 0% sale taxes, and cannot be set.

Project Owner Notes:









Blacklist Check

The project owners of Aniwar Token do not have a blacklist function their contract.

The Project allow owners to transfer their tokens without any restrictions.

Token owner cannot blacklist the contract: Malicious or compromised owners can trap contracts relying on tokens with a blacklist.

Blacklist Notes:

Auditor Notes: blacklist is set for those tx origin from early buy

Project Owner Notes: undefined







MaxTx Check

The Project Owners of Aniwar Token cannot set max tx amount

The Team allows any investors to swap, transfer or sell their total amount if needed.

MaxTX Notes:

Auditor Notes:

Project Owner Notes:

Project Has No MaxTX







Pause Trade Check

The Project Owners of Aniwar Token don't have the ability to stop or pause trading.

The Team has done a great job to avoid stop trading, and investors has the ability to trade at any given time without any problems

Pause Trade Notes:

Auditor Notes: There is an Open Trade so holders cant trade until is enable.

Project Owner Notes:







Contract Ownership

The contract ownership of Aniwar Token is not currently renounced. The ownership of the contract grants special powers to the protocol creators, making them the sole addresses that can call sensible ownable functions that may alter the state of the protocol.

The current owner is the address which can be viewed: <u>HERE</u>

The owner wallet has the power to call the functions displayed on the privileged functions chart below, if the owner's wallet is compromised, they could exploit these privileges.

We recommend the team renounce ownership at the right time, if possible, or gradually migrate to a timelock with governing functionalities regarding transparency and safety considerations.

We recommend the team use a Multisignature Wallet if the contract is not going to be renounced; this will give the team more control over the contract.





Liquidity Ownership

The token does not have liquidity at the moment of the audit, block

If liquidity is unlocked, then the token developers can do what is infamously known as 'rugpull'. Once investors start buying token from the exchange, the liquidity pool will accumulate more and more coins of established value (e.g., ETH or BNB or Tether). This is because investors are basically sending these tokens of value to the exchange, to get the new token. Developers can withdraw this liquidity from the exchange, cash in all the value and run off with it. Liquidity is locked by renouncing the ownership of liquidity pool (LP) tokens for a fixed time period, by sending them to a time-lock smart contract. Without ownership of LP tokens, developers cannot get liquidity pool funds back. This provides confidence to the investors that the token developers will not run away with the liquidity money. It is now a standard practice that all token developers follow, and this is what really differentiates a scam coin from a real one.

Read More





KYC Information

The Project Owners of Aniwar Token is not KYC.

KYC Information Notes:

Auditor Notes:

Project Owner Notes:







Smart Contract Vulnerability Checks

ID	Severity	Name	File	location
SWC-100	Pass	Function Default Visibility	AniwarToken.sol	L: 0 C: 0
SWC-101	Pass	Integer Overflow and Underflow.	AniwarToken.sol	L: 0 C: 0
SWC-102	Pass	Outdated Compiler Version file.	AniwarToken.sol	L: 0 C: 0
SWC-103	Low	A floating pragma is set.	AniwarToken.sol	L: 2 C: 1
SWC-104	Pass	Unchecked Call Return Value.	AniwarToken.sol	L: 0 C: 0
SWC-105	Pass	Unprotected Ether Withdrawal.	AniwarToken.sol	L: 0 C: 0
SWC-106	Pass	Unprotected SELFDESTRUCT Instruction	AniwarToken.sol	L: 0 C: 0
SWC-107	Pass	Read of persistent state following external call.	AniwarToken.sol	L: 0 C: 0
SWC-108	Pass	State variable visibility is not set	AniwarToken.sol	L: 405 C: 9
SWC-109	Pass	Uninitialized Storage Pointer.	AniwarToken.sol	L: 0 C: 0
SWC-110	Pass	Assert Violation.	AniwarToken.sol	L: 0 C: 0
SWC-111	Pass	Use of Deprecated Solidity Functions.	Aniwar Token.sol	L: 0 C: 0
SWC-112	Pass	Delegate Call to Untrusted Callee.	Aniwar Token.sol	L: 0 C: 0





ID	Severity	Name	File	location
SWC-113	Pass	Multiple calls are executed in the same transaction.	AniwarToken.sol	L: 0 C: 0
SWC-114	Pass	Transaction Order Dependence.	AniwarToken.sol	L: 0 C: 0
SWC-115	Low	Authorization through tx.origin.	AniwarToken.sol	L: 1375 C: 27, L: 1413 C: 12
SWC-116	Pass	A control flow decision is made based on The block.timestamp environment variable.	AniwarToken.sol	L: 0 C: 0
SWC-117	Pass	Signature Malleability.	AniwarToken.sol	L: 0 C: 0
SWC-118	Pass	Incorrect Constructor Name.	AniwarToken.sol	L: 0 C: 0
SWC-119	Pass	Shadowing State Variables.	AniwarToken.sol	L: 0 C: 0
SWC-120	Low	Potential use of block.number as source of randonmness.	AniwarToken.sol	L: 40 C: 111
SWC-121	Pass	Missing Protection against Signature Replay Attacks.	AniwarToken.sol	L: 0 C: 0
SWC-122	Pass	Lack of Proper Signature Verification.	AniwarToken.sol	L: 0 C: 0
SWC-123	Pass	Requirement Violation.	AniwarToken.sol	L: 0 C: 0
SWC-124	Pass	Write to Arbitrary Storage Location.	AniwarToken.sol	L: 0 C: 0
SWC-125	Pass	Incorrect Inheritance Order.	AniwarToken.sol	L: 0 C: 0
SWC-126	Pass	Insufficient Gas Griefing.	AniwarToken.sol	L: 0 C: 0





ID	Severity	Name	File	location
SWC-127	Pass	Arbitrary Jump with Function Type Variable.	AniwarToken.sol	L: 0 C: 0
SWC-128	Pass	DoS With Block Gas Limit.	AniwarToken.sol	L: 0 C: 0
SWC-129	Pass	Typographical Error.	AniwarToken.sol	L: 0 C: 0
SWC-130	Pass	Right-To-Left-Override control character (U +202E).	AniwarToken.sol	L: 0 C: 0
SWC-131	Pass	Presence of unused variables.	AniwarToken.sol	L: 0 C: 0
SWC-132	Pass	Unexpected Ether balance.	AniwarToken.sol	L: 0 C: 0
SWC-133	Pass	Hash Collisions with Multiple Variable Length Arguments.	AniwarToken.sol	L: 0 C: 0
SWC-134	Pass	Message call with hardcoded gas amount.	AniwarToken.sol	L: 0 C: 0
SWC-135	Pass	Code With No Effects (Irrelevant/Dead Code).	AniwarToken.sol	L: 0 C: 0
SWC-136	Pass	Unencrypted Private Data On-Chain.	AniwarToken.sol	L: 0 C: 0

We scan the contract for additional security issues using MYTHX and industry-standard security scanning tools.





Smart Contract Vulnerability Details

SWC-103 - Floating Pragma.

CWE-664: Improper Control of a Resource	Through its
Lifetime.	

References:

Description:

Contracts should be deployed with the same compiler version and flags that they have been tested with thoroughly. Locking the pragma helps to ensure that contracts do not accidentally get deployed using, for example, an outdated compiler version that might introduce bugs that affect the contract system negatively.

Remediation:

Lock the pragma version and also consider known bugs (https://github.com/ethereum/solidity/releases) for the compiler version that is chosen.

Pragma statements can be allowed to float when a contract is intended for consumption by other developers, as in the case with contracts in a library or EthPM package. Otherwise, the developer would need to manually update the pragma in order to compile locally.

References:

Ethereum Smart Contract Best Practices - Lock pragmas to specific compiler version.





Smart Contract Vulnerability Details

SWC-115 - Authorization through tx.origin

CWE-477: Use of Obsolete Function

Description:

tx.origin is a global variable in Solidity which returns the address of the account that sent the transaction. Using the variable for authorization could make a contract vulnerable if an authorized account calls into a malicious contract. A call could be made to the vulnerable contract that passes the authorization check since tx.origin returns the original sender of the transaction which in this case is the authorized account.

Remediation:

tx.origin should not be used for authorization. Use msg.sender instead.

References:

Solidity Documentation - tx.origin

Ethereum Smart Contract Best Practices - Avoid using tx.origin

SigmaPrime - Visibility.





Smart Contract Vulnerability Details

SWC-120 - Weak Sources of Randomness from Chain Attributes

CWE-330: Use of Insufficiently Random Values

Description:

Solidity allows for ambiguous naming of state variables when inheritance is used. Contract A with a variable x could inherit contract B that also has a state variable x defined. This would result in two separate versions of x, one of them being accessed from contract A and the other one from contract B. In more complex contract systems this condition could go unnoticed and subsequently lead to security issues.

Shadowing state variables can also occur within a single contract when there are multiple definitions on the contract and function level.

Remediation:

Using commitment scheme, e.g. RANDAO. Using external sources of randomness via oracles, e.g. Oraclize. Note that this approach requires trusting in oracle, thus it may be reasonable to use multiple oracles. Using Bitcoin block hashes, as they are more expensive to mine.

References:

How can I securely generate a random number in my smart contract?)

When can BLOCKHASH be safely used for a random number? When would it be unsafe?

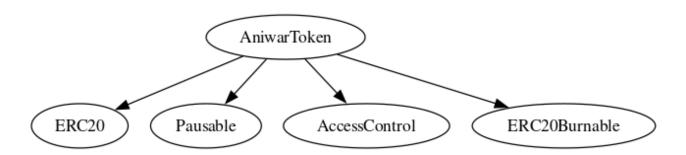
The Run smart contract.





Inheritance

The contract for Aniwar Token has the following inheritance structure.





Smart Contract Advance Checks

ID	Severity	Name	Result	Status
ANIW-01	Minor	Potential Sandwich Attacks.	Pass	Not-Found
ANIW-02	Minor	Function Visibility Optimization	Fail	Pending
ANIW-03	Minor	Lack of Input Validation.	Pass	Resolved
ANIW-04	Major	Centralized Risk In addLiquidity.	Pass	Not-Found
ANIW-05	Major	Missing Event Emission.	Pass	Not-Found
ANIW-06	Minor	Conformance with Solidity Naming Conventions.	Pass	Not Found
ANIW-07	Minor	State Variables could be Declared Constant.	Pass	In-Review
ANIW-08	Major	Dead Code Elimination.	Pass	Not-Found
ANIW-09	Major	Third Party Dependencies.	Pass	Not Found
ANIW-10	Major	Initial Token Distribution.	Fail	Pending
ANIW-11	Critical	distributeTokensBetween Holders is a multisender of tokens from contract.	Pass	Resolved
ANIW-12	Major	Centralization Risks In The X Role	Pass	Not Found
ANIW-13	Informational	Extra Gas Cost For User	Pass	Not-Found
ANIW-14	Informational	Unnecessary Use Of SafeMath	Pass	Not-Found





ANIW-02 | Function Visibility Optimization.

Category	Severity	Location	Status
Gas Optimization	Minor	AniwarToken.sol: 20,12, 24,12	Pending

Description

The following functions are declared as public and are not invoked in any of the contracts contained within the projects scope:

Function Name	Parameters	Visibility
pause		public
unpause		public

The functions that are never called internally within the contract should have external visibility

Remediation

We advise that the function's visibility specifiers are set to external, and the array-based arguments change their data location from memory to calldata, optimizing the gas cost of the function.

References:

external vs public best practices.





ANIW-10 | Initial Token Distribution.

С	Category	Severity	Location	Status
	entralization / rivilege	Major	AniwarToken.sol: 17,5	Pending

Description

All of the Aniwar Token tokens are sent to the contract deployer when deploying the contract. This could be a centralization risk as the deployer can distribute tokens without obtaining the consensus of the community.

Remediation

We recommend the team to be transparent regarding the initial token distribution process, and the team shall make enough efforts to restrict the access of the private key.

Project Action

Token Distribution goes to the msg.sender.





Social Media Checks

Social Media	URL	Result
Twitter	https://twitter.com/AniwarOfficial	Pass
Other	https://discord.gg/TVhwcXV3	Pass
Website	https://aniwar.io	Pass
Telegram	https://t.me/AniWarGlobal	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	89/100
Auditor Score	70/100
Review by Section	Score
Manual Scan Score	31/35
SWC Scan Score	34/37
Advance Check Score	24/28

The Following Score System Has been Added to this page to help understand the value of the audit, the maximun score is 100, however to attain that value the project most pass and provide all the data needed for the assessment. Our Passing Score has been changed to 80 Points, if a project does not attain 80% is an automatic failure. Read our notes and final assessment below.

Audit Passed







Assessment Results

Important Notes:

- No issues or vulnerabilities were found.
- The contract takes 1% on transfers and send them to owners wallet.
- make sure to dyor.

Auditor Score = 70 Audit Passed







Appendix

Finding Categories

Centralization / Privilege

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

Gas Optimization

Gas Optimization findings do not affect the functionality of the code but generate different, more optimalEVM 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 howblock.timestamp works.

Control Flow

Control Flow findings concern the access control imposed on functions, such as owneronly functionsbeing 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 mayresult in a vulnerability.

Coding Style

Coding Style findings usually do not affect the generated byte-code but rather comment on how to makethe 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 require statements on the input variables than a setterfunction.

Coding Best Practices

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





Disclaimer

CFGNINJA 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 advocation 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.

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