CFG NINJA AUDITS

Security Assessment

SQUIDTAMA Token

November 7, 2022

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Audit Summary

This report has been prepared for SQUIDTAMA Token on the Binance Smart Chain 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.

Project Overview

Token Summary

Parameter	Result
Address	0x89E05342daA96430dBe522861B961E338F5d2ac4
Name	SQUIDTAMA
Token Tracker	SQUIDTAMA (SQT)
Decimals	18
Supply	100,000,000
Platform	Binance Smart Chain
compiler	v0.8.17+commit.8df45f5f
Contract Name	SQUIDTAMA
Optimization	Yes with 200 runs
LicenseType	MIT
Language	Solidity
Codebase	https://bscscan.com/address/0x89E05342daA96430dBe522861B961E338F5d2ac4#code
Payment Tx	0xda7fda4d084c89ac638ed7af1271456f67bfe8aba52b259afdc46b3df7dc8aa1

Project Overview

Risk Analysis Summary

Parameter	Result
Buy Tax	9%
Sale Tax	15%
Is honeypot?	Clean
Can edit tax?	No
Is anti whale?	No
Is blacklisted?	No
Is whitelisted?	Yes
Holders	Clean
Security Score	95/100
Auditor Score	95/100
Confidence Level	Pass

The following quick summary has been added to the project overview, however there are more details about the audit and their results please read every details.

Main Contract Assessed
Contract Name

Name	Contract	Live
SQUIDTAMA	0x89E05342daA96430dBe522861B961E338F5d2ac4	Yes

TestNet Contract Assessed
Contract Name

Name	Contract	Live
SQUIDTAMA	0x0e3CD399B52DaF11cdB22d6279603Cb63801A423	Yes

Solidity Code Provided

SolID	File Sha-1	FileName
SQUIDTAMA	e02123e6ba73fd491e874d4cdc1ee3a697cc8f15	SQUIDTAMA.sol

Mint Check

The Project Owners of SQUIDTAMA does not have a mint function in the contract, owner cannot mint tokens after initial deploy

The Project has a Total Supply of 100,000,000 and cannot mint any more than the Max Supply.

Mint Notes:

Auditor Notes: No Mint Function was found during the code review

Project Owner Notes:

Fees Check

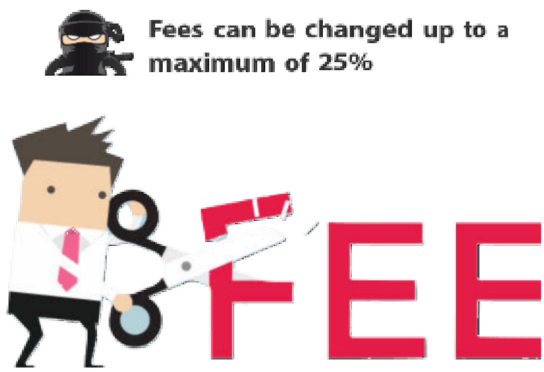
The Project Owners of SQUIDTAMA does not have the ability to set fees higher than 25% .

Team May have fees defined, however they dont have the ability to set those fees higher than 25%.

Tax Fee Notes:

Auditor Notes: Contract currently have 0% tax and cannot be modified

Project Owner Notes: .



Blacklist Check

The Project Owners of SQUIDTAMA does 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:

Project Owner Notes: .

MaxTx Check

The Project Onwers of SQUIDTAMA does not has the ability to set max tx amount

The Team allow any investors to swap, transfer or sale their total amount if needed.

MaxTX Notes:

Auditor Notes: '

Project Owner Notes:

Project Has No MaxTX

Pause Trade Check

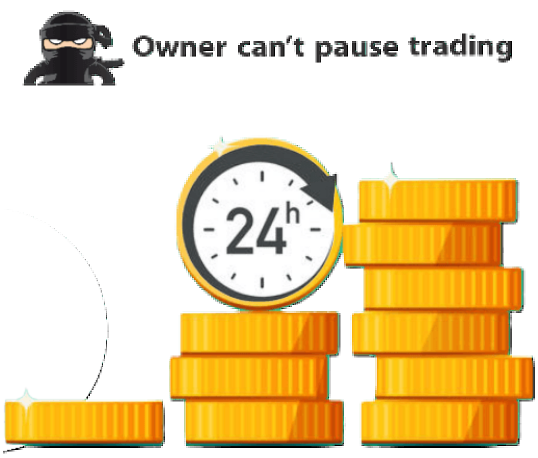
The Project Owners of SQUIDTAMA don't have the ability to stop or pause trading.

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: Not found a value to stop, however there is a start trade.

Project Owner Notes:



Contract Ownership

The contract ownership of SQUIDTAMA 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
0x00a05f6f487cca5f2bbacb9907b78bdac3bade17
which can be viewed from:
HERE

The owner wallet has the power to call the functions displayed on the priviliged functions chart below, if the owner wallet is compromised this privileges could be exploited.

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

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

Liquidity Ownership

The token does not have liquidity at the moment of the audit, block 24401549

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 SQUIDTAMA is not KYC. .

KYC Information Notes:

Auditor Notes: Asked project owner about KYC, Project owner passed KYC with PinkSale.

Project Owner Notes:

Smart Contract Vulnerability Checks

ID	Severity	Name	File	location
SWC-100	Pass	Function Default Visibility	SQUIDTAMA.sol	L: 0 C: 0
SWC-101	Pass	Integer Overflow and Underflow.	SQUIDTAMA.sol	L: 0 C: 0
SWC-102	Pass	Outdated Compiler Version file.	SQUIDTAMA.sol	L: 0 C: 0
SWC-103	Low	A floating pragma is set.	SQUIDTAMA.sol	L: 7 C: 0
SWC-104	Pass	Unchecked Call Return Value.	SQUIDTAMA.sol	L: 0 C: 0
SWC-105	Pass	Unprotected Ether Withdrawal.	SQUIDTAMA.sol	L: 0 C: 0
SWC-106	Pass	Unprotected SELFDESTRUCT Instruction	SQUIDTAMA.sol	L: 0 C: 0
SWC-107	Low	Read of persistent state following external call.	SQUIDTAMA.sol	L: 7 C: 0
SWC-108	Pass	State variable visibility is not set..	SQUIDTAMA.sol	L: 0 C: 0
SWC-109	Pass	Uninitialized Storage Pointer.	SQUIDTAMA.sol	L: 0 C: 0
SWC-110	Pass	Assert Violation.	SQUIDTAMA.sol	L: 0 C: 0
SWC-111	Pass	Use of Deprecated Solidity Functions.	SQUIDTAMA.sol	L: 0 C: 0
SWC-112	Pass	Delegate Call to Untrusted Callee.	SQUIDTAMA.sol	L: 0 C: 0

ID	Severity	Name	File	location
SWC-113	Pass	Multiple calls are executed in the same transaction.	SQUIDTAMA.sol	L: 0 C: 0
SWC-114	Pass	Transaction Order Dependence.	SQUIDTAMA.sol	L: 0 C: 0
SWC-115	Pass	Authorization through tx.origin.	SQUIDTAMA.sol	L: 0 C: 0
SWC-116	Pass	A control flow decision is made based on The block.timestamp environment variable.	SQUIDTAMA.sol	L: 0 C: 0
SWC-117	Pass	Signature Malleability.	SQUIDTAMA.sol	L: 0 C: 0
SWC-118	Pass	Incorrect Constructor Name.	SQUIDTAMA.sol	L: 0 C: 0
SWC-119	Pass	Shadowing State Variables.	SQUIDTAMA.sol	L: 0 C: 0
SWC-120	Low	Potential use of block.number as source of randonmness.	SQUIDTAMA.sol	L: 514 C: 12, L: 677 C: 24
SWC-121	Pass	Missing Protection against Signature Replay Attacks.	SQUIDTAMA.sol	L: 0 C: 0
SWC-122	Pass	Lack of Proper Signature Verification.	SQUIDTAMA.sol	L: 0 C: 0
SWC-123	Pass	Requirement Violation.	SQUIDTAMA.sol	L: 0 C: 0
SWC-124	Pass	Write to Arbitrary Storage Location.	SQUIDTAMA.sol	L: 0 C: 0
SWC-125	Pass	Incorrect Inheritance Order.	SQUIDTAMA.sol	L: 0 C: 0
SWC-126	Pass	Insufficient Gas Griefing.	SQUIDTAMA.sol	L: 0 C: 0
SWC-127	Pass	Arbitrary Jump with Function Type Variable.	SQUIDTAMA.sol	L: 0 C: 0

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

We scan the contract for additional security issues using MYTHX and industry standard security scanning tool

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-107 - Reentrancy.

CWE-841: Improper Enforcement of Behavioral Workflow.

Description:

One of the major dangers of calling external contracts is that they can take over the control flow. In the reentrancy attack (a.k.a. recursive call attack), a malicious contract calls back into the calling contract before the first invocation of the function is finished. This may cause the different invocations of the function to interact in undesirable ways.

Remediation:

The best practices to avoid Reentrancy weaknesses are: Make sure all internal state changes are performed before the call is executed. This is known as the Checks-Effects-Interactions pattern Use a reentrancy lock.

References:

Ethereum Smart Contract Best Practices - Reentrancy

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:

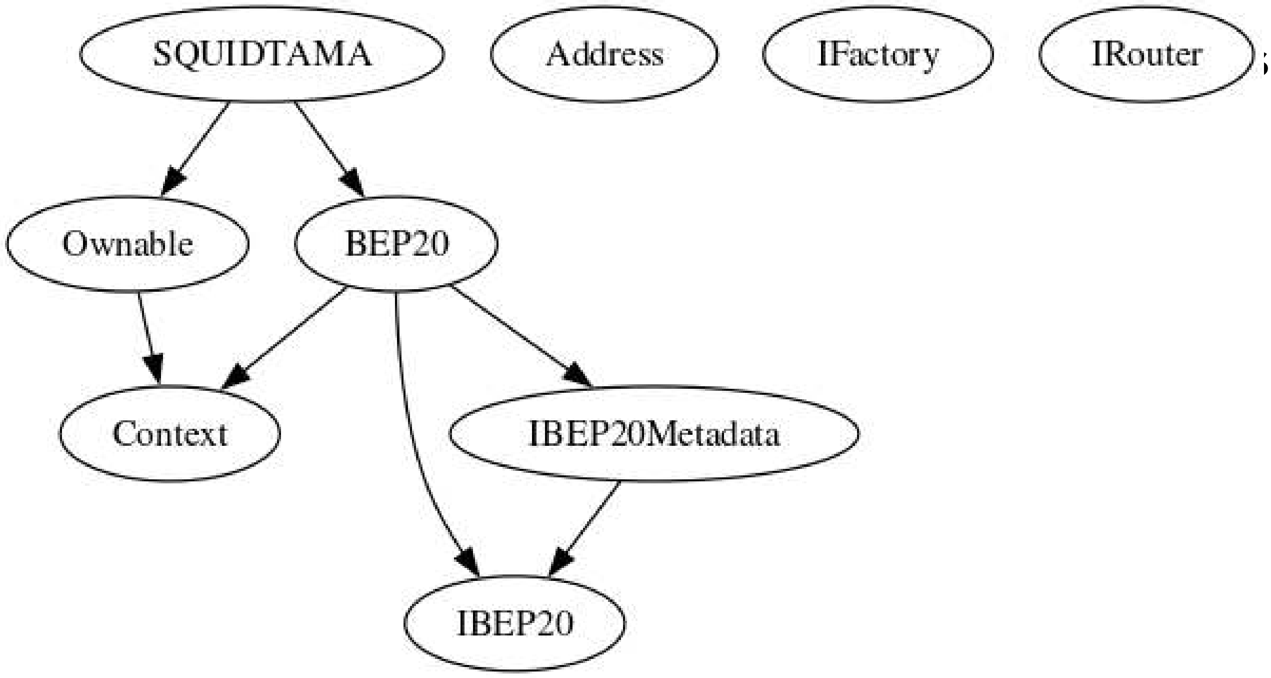
How can I securely generate a random number in my smart contract?)

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

The Run smart contract.

Call Graph and Inheritance

The contract for SQUIDTAMA has the following call graph structure



Priviliged Functions (onlyOwner)

Function Name	Parameters	Visibility
renounceOwnership		public
transferOwnership	account (address)	external
updateLiquidityProvide		external
updateLiquidityTreshhold		external
setBuyTaxes		external
setSellTaxes		external
EnableTrading		external
updatedeadline		external
updateMarketingWallet		external
updateTamatokenvaultwallet		external
updateDevWallet		external

Function Name	Parameters	Visibility
updateExemptFee	_address (address), state (bool)	external
bulkExemptFee	accounts (address[]),state (bool)	external
rescueBNB	weiAmount (uint256)	external
rescueBSC20	tokenAdd (address), amount (uint256)	external

Assessment Results

- Contract has taxes up to 15%.
- Owner can't set max tx amount.
- Owner can't pause trading.
- No high-risk Exploits/Vulnerabilities Were Found in the Source Code.
- Contract has been developed by Anoop and follow the coding best practices, we have fully tested the code and its functionalities.

Audit Passed

Social Media Checks

Social Media	URL	Result
Twitter	https://twitter.com/SQUIDTAMA_BSC	Pass
Instagram		Fail
Website		Fail
Telegram	https://t.me/SQUIDTAMA_BSC	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: Projects owners have no other socials

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 recommendations to improve the style of the code 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	0	0	0
Medium	0	0	0
Minor	0	0	0
Informational	0	0	0
Total	0	0	0

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 owner-only 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 audit to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the codes that were provided for the scope of this audit. This audit report does not constitute agreement, acceptance or advocation for the Project that was audited, and users relying on this audit 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 may be pursued by the Project in question, and that 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 completely free of exploits, bugs, vulnerabilities or deprecation of technologies.

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