KISHIELD

Security Audit

TRIPLE7 Token

May 3, 2022

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Audit Summary

This report has been prepared for TRIPLE7 Token on the Cronos Chain network. KISHIELD 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:

- Ensuring contract logic meets the specifications and intentions of the client without exposing the user's funds to risk.
- 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.
- Thorough line-by-line manual review of the entire codebase by industry experts.

Project Overview

Token Summary

Parameter	Result
Address	0xF21ED36905dd8192A4C9D7EE97bBe9CDE88C2A5b
Name	TRIPLE7
Token Tracker	TRIPLE7 (777)
Decimals	18
Supply	500,000,000
Platform	Cronos Chain
compiler	v0.8.4+commit.c7e474f2
Optimization	Yes with 200 runs
LicenseType	MIT
Language	Solidity
Codebase	https://cronoscan.com/token/0xF21ED36905dd8192A4C9D7EE97bBe9CDE88C2A5b
Url	https://www.triple7cro.com/

Main Contract Assessed

Name	Contract	Live
TRIPLE7	0xF21ED36905dd8192A4C9D7EE97bBe9CDE88C2A5b	Yes

Smart Contract Vulnerability Checks

Vulnerability	Automatic Scan	Manual Scan	Result
Unencrypted Private Data On-Chain	Complete	Complete	Low / No Risk
Code With No Effects	Complete	Complete	Low / No Risk
Message call with hardcoded gas amount	Complete	Complete	Low / No Risk
Hash Collisions With Multiple Variable Length Arguments	Complete	Complete	Low / No Risk
Unexpected Ether balance	Complete	Complete	Low / No Risk
Presence of unused variables	Complete	Complete	Low / No Risk
Right-To-Left-Override control character (U+202E)	Complete	Complete	Low / No Risk
Typographical Error	Complete	Complete	Low / No Risk
DoS With Block Gas Limit	Complete	Complete	Low / No Risk
Arbitrary Jump with Function Type Variable	Complete	Complete	Low / No Risk
Insufficient Gas Griefing	Complete	Complete	Low / No Risk
Incorrect Inheritance Order	Complete	Complete	Low / No Risk
Write to Arbitrary Storage Location	Complete	Complete	Low / No Risk
Requirement Violation	Complete	Complete	Low / No Risk
Missing Protection against Signature Replay Attacks	Complete	Complete	Low / No Risk
Weak Sources of Randomness from Chain Attributes	Complete	Complete	Low / No Risk

Vulnerability	Automatic Scan	Manual Scan	Result
Authorization through tx.origin	Complete	Complete	Low / No Risk
Delegatecall to Untrusted Callee	Complete	Complete	Low / No Risk
Use of Deprecated Solidity Functions	Complete	Complete	Low / No Risk
Assert Violation	Complete	Complete	Low / No Risk
Reentrancy	Complete	Complete	Low / No Risk
Unprotected SELFDESTRUCT Instruction	Complete	Complete	Low / No Risk
Unprotected Ether Withdrawal	Complete	Complete	Low / No Risk
Unchecked Call Return Value	Complete	Complete	Low / No Risk
Outdated Compiler Version	Complete	Complete	Low / No Risk
Integer Overflow and Underflow	Complete	Complete	Low / No Risk
Function Default Visibility	Complete	Complete	Low / No Risk

Contract Ownership

The contract ownership of TRIPLE7 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 0x5972ae6e28375116165fae87969881d460f90e0f 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.

Important Notes To The Users:

- The owner cannot mint tokens after intial deployment.
- The owner cannot stop Trading.
- The owner cannot change the max tx amount.
- The owner cannot change the fees to more than 25%.
- Once the owner renounces ownership of the contract, none of the following are applicable.
- The owner can add/remove addresses from fees and rewards.
- The owner can enable/disable the autoLiquidity mechanism.
- The owner can enable/disable fees.
- No high-risk Exploits/Vulnerabilities Were Found in token Source Code Other than owner priviliges

Audit Passed

Findings Summary

Classification of Issues

Severity	Description
High	Exploits, vulnerabilities or errors that will certainly or probabilistically lead towards loss of funds, control, or impairment of the contract and its functions. Issues under this classification are recommended to be fixed with utmost urgency
Medium	Bugs or issues with that may be subject to exploit, though their impact is somewhat limited.Issues under this classification are recommended to be fixed as soon as possible.
Low	Effects are minimal in isolation and do not pose a significant danger to the project or its users. Issues under this classification are recommended to be fixed nonetheless.
Info	Consistency, syntax or style best practices. Generally pose a negligible level of risk, if any.

Findings

Severity	Found
High	0
Medium	0
Low	0
Info	4
Total	4

Findings

Variables could be declared as constant

ID	Severity	Contract	Function
01	Informational	TRIPLE7	variable CONTRACT_VERSION

Description

Gas Optimization. Variables that are never changed could be declared as constant.

Recommendation

We recommend declaring those variables as constant.

Public function that could be declared external

ID	Severity	Contract	Function
02	Informational	TRIPLE7	Functions isExcludedFromReward, totalFees, deliver, reflectionFromToken, excludeFromReward, excludeFromFee, includeInFee, setSwapAndLiquifyEnabled, isExcludedFromFee

Description

Gas Optimization. Public function that could be declared external

Recommendation

Public functions that are never called by the contract should be declared external to save gas.

Missing events arithmetic

ID	Severity	Contract	Function
03	Informational	TRIPLE7	Missing events for setTaxFeePercent, setLiquidityFeePercent, setMarketingFeePercent

Description

Functions that change critical arithmetic parameters should emit an event.

Recommendation

Emit corresponding events for critical parameter changes.

Tautology

ID	Severity	Contract	Function
04	Informational	TRIPLE7	Tautology in require condition for taxFeeBps_, liquidityFeeBps_, charityFeeBps_

Description

When using '>= 0' for uint256 this comparison is always true as uint cannot be negative and the default value is 0.

Recommendation

Fix the incorrect comparison by changing the value type or the comparison.

Priviliged Functions (onlyOwner)

Function Name	Parameters	Visibility
renounceOwnership	none	public
transferOwnership	address newOwner	public
excludeFromReward	address account	public
includeInReward	address account	external
excludeFromFee	address account	public
includeInFee	address account	public
setTaxFeePercent	uint256 taxFee	external
setLiquidityFeePercent	uint256 liquidityFee	external
setMarketingFeePercent	uint256 marketingFee	external
setSwapAndLiquifyEnabled	bool _enabled	public
setMarketingAddress	address marketingAddress	external
disableFees	none	external
enableFees	none	external

Statistics

Liquidity Info

Parameter	Result
Pair Address	0x396697e547c7fe4c1325a11b31aca83ad396de56
777 Reserves	0.00 777
CRO Reserves	0.00 CRO
Liquidity Value	$0 USD

Token (777) Holders Info

Parameter	Result
777 Percentage Burnt	0.00%
777 Amount Burnt	0 777
Top 10 Percentage Own	100.00%
Top 10 Amount Owned	500,000,000 777
Top 10 Aprox Value	$NaN USD

LP (777/CRO) Holders Info

Parameter	Result
777/CRO % Burnt	0.00%
777/CRO Amount Burnt	0 777
Top 10 Percentage Owned	0.00%
Top 10 Amount Owned	0 777
Locked Tokens Percentage	0.00%
Locked Tokens Amount	0 777

* All the data diplayed above was taken on-chain at block 17198105
* The tokens on industry-standard burn wallets are not included on the top 10 wallets calculations

Liquidity Ownership

The token does not have liquidity at the moment of the audit, block 17198105

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