KISHIELD

Security Audit

LunarProtocol Token

March 18, 2022

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Audit Summary

This report has been prepared for LunarProtocol Token on the Binance 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	0xf19E32fA7fb594BC0ad39E6C4857ff82F66a37A2
Name	LunarProtocol
Token Tracker	LunarProtocol (LPRO)
Decimals	5
Supply	325,000
Platform	Binance Chain
compiler	v0.7.4+commit.3f05b770
Optimization	Yes with 200 runs
LicenseType	MIT
Language	Solidity
Codebase	https://bscscan.com/address/0x9775bC21aFE837e1CF1bf2c5 bcAfBC37B4A47331#code
Url	https://www.lunarprotocol.com

Main Contract Assessed

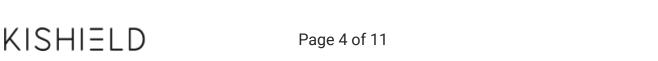
Name	Contract	Live
LunarProtocol	0xf19E32fA7fb594BC0ad39E6C4857ff82F66a37A2	Yes





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 LunarProtocol 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 0x744cdFb5d6E77361Bf33BD82cD2dae04357079f7 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.





Priviliged Functions (onlyOwner)

Function Name	Parameters	Visibility
setDistributionCriteria	none	external
setShare	none	external
deposit	none	external
process	none	external
renounceOwnership	none	public
transferOwnership	address newOwner	public
transfer	none	external
transferFrom	none	external
addLiquidity	none	internal
swapBack	none	internal
withdrawAllToTreasury	none	external
withdrawAllToTreasury	none	external
setAutoRebase	bool _flag	external
setAutoAddLiquidity	bool _flag	external
setIsDividendExempt	address holder, bool exempt	external
setDistributionCriteria	uint256 _minPeriod, uint256 _minDistribution	external





Function Name	Parameters	Visibility
setDistributorSettings	uint256 gas	external
setFeeReceivers	address _autoLiquidityReceiver, address _treasuryReceiver, address _blackhole	external
setWhitelist	address _addr	external
setBotBlacklist	address _botAddress, bool _flag	external
setLP	address _address	external



Important Notes To The Users:

- The owner cannot mint tokens after initial contract deploy.
- The owner cannot stop Trading.
- There total fees cannot be changed after deploy.
- Sell fee is 16%
- Buy fee is 14%
- The transfer function is implemented correctly.
- The owner can include/exclude addresses from fees and dividents.
- The owner cannot change max tx amount.
- Project owner can add bot contracts to blacklist.
- The contract complies with the BEP-20 token standard.
- The contract implements division before multiplication, this can lead to rounding errors. It was done to prevent negative balances in accounting.
- No high-risk Exploits/Vulnerabilities Were Found in the Source Code.

Audit Passed







Statistics

Liquidity Info

Parameter	Result
Pair Address	0x21Ad9AFD631b5Bc6DF932D882114464C745F1218
LPRO Reserves	0.00 LPRO
BNB Reserves	0.00 BNB
Liquidity Value	\$0 USD

Token (LPRO) Holders Info

Parameter	Result
LPRO Percentage Burnt	0.00%
LPRO Amount Burnt	0 LPRO
Top 10 Percentage Own	100.00%
Top 10 Amount Owned	325,000 LPRO
Top 10 Aprox Value	\$NaN USD





LP (LPRO/BNB) Holders Info

Parameter	Result
LPRO/BNB % Burnt	0.00%
LPRO/BNB Amount Burnt	0 LPRO
Top 10 Percentage Owned	0.00%
Top 10 Amount Owned	0 LPRO
Locked Tokens Percentage	0.00%
Locked Tokens Amount	0 LPRO

^{*} All the data diplayed above was taken on-chain at block 16167604

Liquidity Ownership

The token does not have liquidity at the moment of the audit, block 16167604







^{*} The tokens on industry-standard burn wallets are not included on the top 10 wallets calculations

Disclaimer

KISHIELD 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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