SMART CONTRACT
SECURITY AUDIT

MetaShooter

April, 2022

Website: soken.io

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Disclaimer

This is a comprehensive report based on our automated and manual examination of cybersecurity vulnerabilities and framework flaws. We took into consideration smart contract based algorithms, as well. Reading the full analysis report is essential to build your understanding of project's security level. It is crucial to take note, though we have done our best to perform this analysis and report, that you should not rely on the our research and cannot claim what it states or how we created it. Before making any judgments, you have to conduct your own independent research. We will discuss this in more depth in the following disclaimer - please read it fully.

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Security analysis is based only on the smart contracts. No applications or operations were reviewed for security. No product code has been reviewed.

Procedure

Our analysis contains following steps:

1. Project Analysis;

2. Manual analysis of smart contracts:
- Deploying smart contracts on any of the network(Ropsten/Rinkeby) using Remix IDE
- Hashes of all transaction will be recorded
- Behaviour of functions and gas consumption is noted, as well.

3. Unit Testing:
- Smart contract functions will be unit tested on multiple parameters and under multiple conditions to ensure that all paths of functions are functioning as intended.
- In this phase intended behaviour of smart contract is verified.
- In this phase, we would also ensure that smart contract functions are not consuming unnecessary gas.
- Gas limits of functions will be verified in this stage.

4. Automated Testing:
- Mythril
- Oyente
- Manticore
- Solgraph

Terminology

We categorize the finding into 4 categories based on their vulnerability:

- Low-severity issue — less important, must be analyzed
- Medium-severity issue — important, needs to be analyzed and fixed
- High-severity issue —important, might cause vulnerabilities, must be analyzed and fixed
- Critical-severity issue —serious bug causes, must be analyzed and fixed.

Limitations

The security audit of Smart Contract cannot cover all vulnerabilities. Even if no vulnerabilities are detected in the audit, there is no guarantee that future smart contracts are safe. Smart contracts are in most cases safeguarded against specific sorts of attacks. In order to find as many flaws as possible, we carried out a comprehensive smart contract audit. Audit is a document that is not legally binding and guarantees nothing.

Token Contract Details for 08.04.2022

Contract Name: **MetaShooterToken**

Deployed address: **0x61f95bd637e3034133335C1baA0148E518D438ad**

Total Supply: **95,000,000**

Token Tracker: **MHUNT**

Decimals: **18**

Token holders: **4**

Transactions count: **6**

Top 100 holders dominance: **100.00%**

Audit Details

Project Name: **MetaShooter**

Language: **Solidity**

Compiler Version: **v0.8.9**

Blockchain: **Polygon**

Social Profiles

Project Website: **https://metashooter.gg/**

Project Twitter: **https://twitter.com/MetaShooter_gg**

Project Telegram: **https://t.me/METASHOOTER_GG**

Project Medium: **https://medium.com/@metashooter**

Project Instagram: **https://www.instagram.com/metashooter_gg/**

Project TikTok: **https://www.tiktok.com/@metashooter**

Project Discord: **https://discord.com/invite/FBFQ8A5rmQ**

Project Facebook: **https://www.facebook.com/MetaShooter.gg**
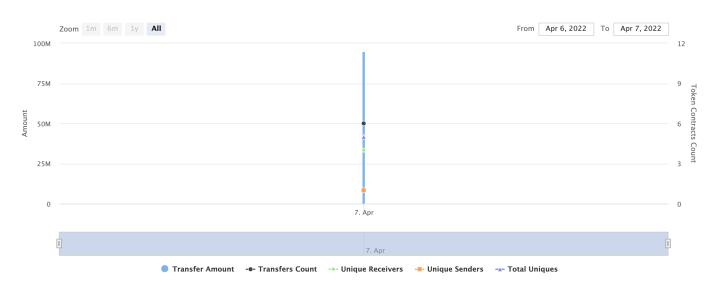
Project LinkedIn: **https://www.linkedin.com/company/metashooter**

Project Reddit: **https://www.reddit.com/r/MetaShooter/**
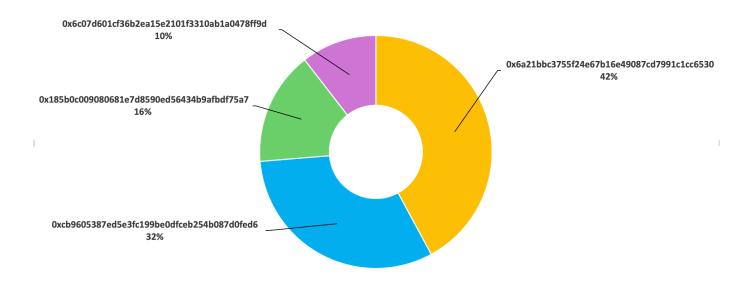
Project YouTube: **https://www.youtube.com/watch?v=l0d7Ky31yPg&t=23s**

Contract Analytics

MHUNT Token Distribution

0x6c07d601cf36b2ea15e2101f3310ab1a0478ff9d
10%

0x6a21bbc3755f24e67b16e49087cd7991c1cc6530
42%

0x185b0c009080681e7d8590ed56434b9afbdf75a7
16%

0xcb9605387ed5e3fc199be0dfceb254b087d0fed6
32%

MHUNT Top Holders

Rank	Address	Quantity (Token)	Percentage
1	0x6a21bbc3755f24e67b16e49087cd7991c1cc6530	39,995,000	42,10%
2	0xcb9605387ed5e3fc199be0dfceb254b087d0fed6	30,020,000	31,60%
3	0x185b0c009080681e7d8590ed56434b9afbdf75a7	15,010,000	15,80%
4	0x6c07d601cf36b2ea15e2101f3310ab1a0478ff9d	9,975,000	10,50%

Contract Function Details

+ Ownable.sol

- [Pub] owner
- [Pub] renounceOwnership
- [Pub] transferOwnership
- [Int] _transferOwnership

+ ERC20.sol

- [Pub] name
- [Pub] symbol
- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer
- [Pub] allowance
- [Pub] approve
- [Pub] transferFrom
- [Pub] increaseAllowance
- [Pub] decreaseAllowance
- [Int] _transfer
- [Int] _mint
- [Int] _burn
- [Int] _approve
- [Int] _spendAllowance
- [Int] _beforeTokenTransfer
- [Int] _afterTokenTransfer

+ IERC20.sol

- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer
- [Ext] allowance
- [Ext] approve
- [Ext] transferFrom

+ IERC20Metadata.sol

- [Ext] name
- [Ext] symbol
- [Ext] decimals

+ SafeERC20.sol

- [Int] safeTransfer
- [Int] safeTransferFrom

- [Int] safeApprove
- [Int] safeIncreaseAllowance
- [Int] safeDecreaseAllowance
- [Prv] _callOptionalReturn

+ Address.sol

- [Int] isContract
- [Int] sendValue
- [Int] functionCall
- [Int] functionCall
- [Int] functionCallWithValue
- [Int] functionCallWithValue
- [Int] functionStaticCall
- [Int] functionStaticCall
- [Int] functionDelegateCall
- [Int] functionDelegateCall
- [Int] verifyCallResult

+ Context.sol

- [Int] _msgSender
- [Int] _msgData

+ Math.sol

- [Int] max
- [Int] min
- [Int] average
- [Int] ceilDiv

+ SafeMath.sol

- [Int] tryAdd
- [Int] trySub
- [Int] tryMul
- [Int] tryDiv
- [Int] tryMod
- [Int] add
- [Int] sub
- [Int] mul
- [Int] div
- [Int] mod
- [Int] sub
- [Int] div
- [Int] mod

+ MetaShooterToken.sol

- [Int] generateLockedTokens
- [Int] generateLiquidityTokens
- [Int] generateTeamTokens
- [Int] generateMarketingTokens

+ MonthlyVestingWallet.sol

- [Int] _vestingSchedule
- [Pub] monthlyVestingPercent
- [Pub] getStepPercent

+ VestingWallet.sol

- [Pub] beneficiary
- [Pub] start
- [Pub] duration
- [Pub] released
- [Pub] releasedToken
- [Pub] release
- [Pub] releaseToken
- [Pub] vestedAmount
- [Pub] vestedAmountToken
- [Int] _vestingSchedule

Vulnerabilities checking

Issue Description	Checking Status
Compiler Errors	Completed
Delays in Data Delivery	Completed
Re-entrancy	Completed
Transaction-Ordering Dependence	Completed
Timestamp Dependence	Completed
Shadowing State Variables	Completed
DoS with Failed Call	Completed
DoS with Block Gas Limit	Completed
Outdated Complier Version	Completed
Assert Violation	Completed
Use of Deprecated Solidity Functions	Completed
Integer Overflow and Underflow	Completed
Function Default Visibility	Completed
Malicious Event Log	Completed
Math Accuracy	Completed
Design Logic	Completed
Fallback Function Security	Completed
Cross-function Race Conditions	Completed
Safe Zeppelin Module	Completed

1)   Long Number Literals : MetaShooterToken.sol : L21:36

```
21        uint256 constant public seedTokens = 19095000000000000000000000; // 19 095 000 * 10**18
22
23        /// Public Sale 1 10.00%
24        uint256 constant public publicSale1Tokens = 9500000000000000000000000; // 9 500 000 * 10**18
25
26        /// Public Sale 2 1.5%
27        uint256 constant public publicSale2Tokens = 1425000000000000000000000; // 1 425 000 * 10**18
28
29        // Marketing / Ecosystem 42.10%
30        uint256 constant public marketingTokens = 39995000000000000000000000; // 19 350 000 * 10**18
31
32        // Team / Advisers 10.50%
33        uint256 constant public teamTokens = 9975000000000000000000000; // 18 060 000 * 10**18
34
35        // Liquidity 15.80%
36        uint256 constant public liquidityTokens = 15010000000000000000000000; // 24 510 000 * 10**18
```

Solidity supports multiple rational and integer literals, including decimal fractions and scientific notations. The use of very large numbers with too many digits was detected in the code that could have been optimized using a different notation also supported by Solidity.

Recommendation:

Scientific notation in the form of 2e10 is also supported, where the mantissa can be fractional but the exponent has to be an integer. The literal MeE is equivalent to M * 10**E. Examples include 2e10, 2e10, 2e-10, 2.5e1, as suggested in official solidity documentation

https://docs.soliditylang.org/en/latest/types.html#rational-and-integer-literals

Conclusion

Smart contracts are free from any medium, critical or high-severity issues.

NOTE: Please check the disclaimer above and note, that audit makes no statements or warranties on business model, investment attractiveness or code sustainability.

Audited by soken

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