



Cyberscope

# Audit Report

# CryptoGame

May 2022

Github <https://github.com/Odelf18/Contracts>

Commit [9c260195624ba7d9abf0808dc0d0648790e311b4](#)

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# Table of Contents

|   |           |
|---|-----------|
| <b>Table of Contents</b>                                | <b>1</b>  |
| <b>Audit Updates</b>                                    | <b>2</b>  |
| <b>Source Files</b>                                     | <b>3</b>  |
| <b>Contract Analysis</b>                                | <b>4</b>  |
| <b>Contract Diagnostics</b>                             | <b>5</b>  |
| <b>L04 - Conformance to Solidity Naming Conventions</b> | <b>6</b>  |
| Description   | 6         |
| Recommendation  | 6         |
| <b>L07 - Missing Events Arithmetic</b>                  | <b>7</b>  |
| Description   | 7         |
| Recommendation  | 7         |
| <b>L09 - Dead Code Elimination</b>                      | <b>8</b>  |
| Description   | 8         |
| Recommendation  | 8         |
| <b>Contract Functions</b>                               | <b>9</b>  |
| <b>Contract Flow</b>                                    | <b>14</b> |
| <b>Domain Info</b>                                      | <b>15</b> |
| <b>Summary</b>  | <b>16</b> |
| <b>Disclaimer</b>                                       | <b>17</b> |
| <b>About Cyberscope</b>                                 | <b>18</b> |

|                       |   |
|-----------------------|---|
| <b>Contract Name</b>  | GAMETOKEN   |
| <b>Github</b>         | <a href="https://github.com/Odelf18/Contracts">https://github.com/Odelf18/Contracts</a>   |
| <b>Commit</b>         | 9c260195624ba7d9abf0808dc0d0648790e311b4  |
| <b>Testing Deploy</b> | <a href="https://testnet.bscscan.com/address/0x46baD3D1Fa98e867eb7c582325001594AaC863E2">https://testnet.bscscan.com/address/0x46baD3D1Fa98e867eb7c582325001594AaC863E2</a> |
| <b>Symbol</b>         | \$CARD  |
| <b>Decimals</b>       | 18  |
| <b>Total Supply</b>   | 1,000,000,000   |
| <b>Domain</b>         | cgame.tech  |

## Audit Updates

|                      |              |
|----------------------|--------------|
| <b>Initial Audit</b> | 2nd May 2022 |
| <b>Corrected</b>     | 5th May 2022 |

## Source Files

| Filename  | SHA256   |
|---|--|
| @openzeppelin/contracts/access/Ownable.sol                        | 75e3c97011e75627ffb36f4a2799a4e887e1a3e27ed427490e82d7b6f51cc5c9 |
| @openzeppelin/contracts/token/ERC20/ERC20.sol                     | f7831910f2ed6d32acff6431e5998baf50e4a00121303b27e974aab0ec637d79 |
| @openzeppelin/contracts/token/ERC20/extensions/IERC20Metadata.sol | af5c8a77965cc82c33b7ff844deb9826166689e55dc037a7f2f790d057811990 |
| @openzeppelin/contracts/token/ERC20/IERC20.sol                    | c2b06bb4572bb4f84bfc5477dad0fcc497cb66c3a1bd53480e68bedc2e154a6  |
| @openzeppelin/contracts/utils/Context.sol                         | 1458c260d010a08e4c20a4a517882259a23a4baa0b5bd9add9fb6d6a1549814a |
| @openzeppelin/contracts/utils/math/SafeMath.sol                   | 15941f3904992a62ed117e93d9e2d5c4c22bd09a7ff97fdd5f49273cf09703ac |
| contracts/Token.sol   | d3b11f0181684b89152e954e5b2a66a946730a1c1ab5ccfe543416156f081800 |

# Contract Analysis

● Critical   ● Medium   ● Minor   ● Pass

| Severity | Code | Description   |
|----------|------|---|
| ●        | ST   | Contract Owner is not able to stop or pause transactions  |
| ●        | OCTD | Contract Owner is not able to transfer tokens from specific address   |
| ●        | OTUT | Owner Transfer User's Tokens  |
| ●        | ELFM | Contract Owner is not able to increase fees more than a reasonable percent (25%)                                  |
| ●        | ULTW | Contract Owner is not able to increase the amount of liquidity taken by dev wallet more than a reasonable percent |
| ●        | MT   | Contract Owner is not able to mint new tokens   |
| ●        | BT   | Contract Owner is not able to burn tokens from specific wallet  |
| ●        | BC   | Contract Owner is not able to blacklist wallets from selling  |

# Contract Diagnostics

● Critical    ● Medium    ● Minor

| Severity | Code | Description                                |
|----------|------|--|
| ●        | L04  | Conformance to Solidity Naming Conventions |
| ●        | L07  | Missing Events Arithmetic                  |
| ●        | L09  | Dead Code Elimination                      |

## L04 - Conformance to Solidity Naming Conventions

**Criticality**

minor

**Location**

contracts/Token.sol#L24,25,42,78,247,248,249,250,251,291,300,304,314,322,334,335,336,395,400,405,492,505,218,219,220,221,222,223,224,225,226,228,229,230,234,235,236,237,238,239,240,243

### Description

Solidity defines a naming convention that should be followed. Rule exceptions:

- Allow constant variable name/symbol/decimals to be lowercase.
- Allow \_ at the beginning of the mixed\_case match for private variables and unused parameters.

```
SwapEnabled
UniswapV2Router
UniswapV2Pair
NumOfTokensForDisperse
MaxWalletSize
TxLimit
PublicTradingOpened
IsSwap
treasuryWallet
...
```

### Recommendation

Follow the Solidity naming convention.

<https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions>

## L07 - Missing Events Arithmetic

**Criticality**

minor

**Location**

contracts/Token.sol#L314,405

### Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes.

```
NumOfTokensForDisperse = _numOfTokensForDisperse.mul(10 ** 18)  
MaxWalletSize = _maxWalletSize.mul(10 ** 18)
```

### Recommendation

Emit an event for critical parameter changes.



## L09 - Dead Code Elimination

**Criticality**

minor

**Location**

contracts/Token.sol#L416

### Description

Functions that are not used in the contract, and make the code's size bigger.

```
_isBuy
```

### Recommendation

Remove unused functions.

# Contract Functions

| Contract       | Type                 | Bases                                     |            |           |
|----------------|----------------------|---|------------|-----------|
|                | Function Name        | Visibility                                | Mutability | Modifiers |
|                |                      |   |            |           |
| <b>Ownable</b> | Implementation       | Context                                   |            |           |
|                | <Constructor>        | Public                                    | ✓          | -         |
|                | owner                | Public                                    |            | -         |
|                | renounceOwnership    | Public                                    | ✓          | onlyOwner |
|                | transferOwnership    | Public                                    | ✓          | onlyOwner |
|                | _transferOwnership   | Internal                                  | ✓          |           |
|                |                      |   |            |           |
| <b>ERC20</b>   | Implementation       | Context,<br>IERC20,<br>IERC20Meta<br>data |            |           |
|                | <Constructor>        | Public                                    | ✓          | -         |
|                | name                 | Public                                    |            | -         |
|                | symbol               | Public                                    |            | -         |
|                | decimals             | Public                                    |            | -         |
|                | totalSupply          | Public                                    |            | -         |
|                | balanceOf            | Public                                    |            | -         |
|                | transfer             | Public                                    | ✓          | -         |
|                | allowance            | Public                                    |            | -         |
|                | approve              | Public                                    | ✓          | -         |
|                | transferFrom         | Public                                    | ✓          | -         |
|                | increaseAllowance    | Public                                    | ✓          | -         |
|                | decreaseAllowance    | Public                                    | ✓          | -         |
|                | _transfer            | Internal                                  | ✓          |           |
|                | _mint                | Internal                                  | ✓          |           |
|                | _burn                | Internal                                  | ✓          |           |
|                | _approve             | Internal                                  | ✓          |           |
|                | _spendAllowance      | Internal                                  | ✓          |           |
|                | _beforeTokenTransfer | Internal                                  | ✓          |           |
|                | _afterTokenTransfer  | Internal                                  | ✓          |           |

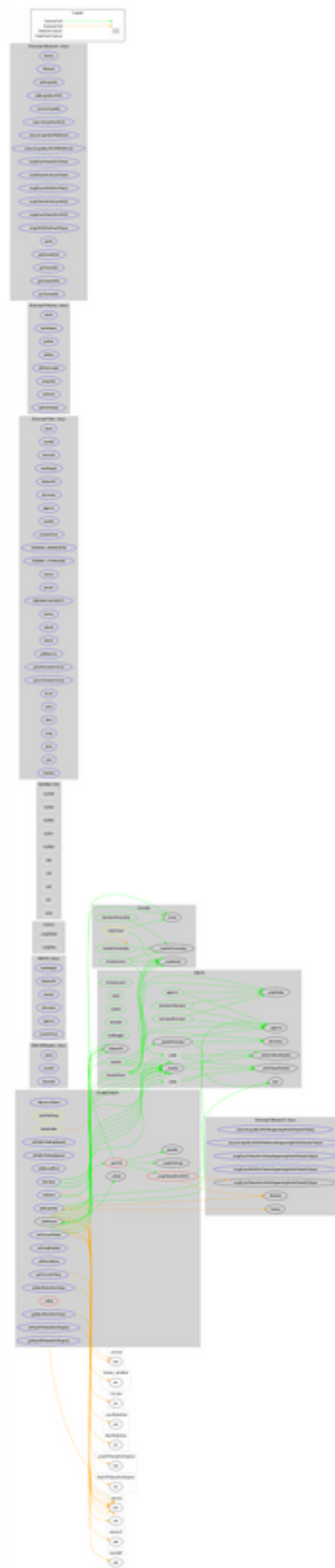
|                       |                |          |   |   |
|-----------------------|----------------|----------|---|---|
|                       |                |          |   |   |
| <b>IERC20Metadata</b> | Interface      | IERC20   |   |   |
|                       | name           | External |   | - |
|                       | symbol         | External |   | - |
|                       | decimals       | External |   | - |
|                       |                |          |   |   |
| <b>IERC20</b>         | Interface      |          |   |   |
|                       | totalSupply    | External |   | - |
|                       | balanceOf      | External |   | - |
|                       | transfer       | External | ✓ | - |
|                       | allowance      | External |   | - |
|                       | approve        | External | ✓ | - |
|                       | transferFrom   | External | ✓ | - |
|                       |                |          |   |   |
| <b>Context</b>        | Implementation |          |   |   |
|                       | _msgSender     | Internal |   |   |
|                       | _msgData       | Internal |   |   |
|                       |                |          |   |   |
| <b>SafeMath</b>       | Library        |          |   |   |
|                       | tryAdd         | Internal |   |   |
|                       | trySub         | Internal |   |   |
|                       | tryMul         | Internal |   |   |
|                       | tryDiv         | Internal |   |   |
|                       | tryMod         | Internal |   |   |
|                       | add            | Internal |   |   |
|                       | sub            | Internal |   |   |
|                       | mul            | Internal |   |   |
|                       | div            | Internal |   |   |
|                       | mod            | Internal |   |   |
|                       | sub            | Internal |   |   |
|                       | div            | Internal |   |   |
|                       | mod            | Internal |   |   |
|                       |                |          |   |   |
| <b>IUniswapV2Pair</b> | Interface      |          |   |   |

|                          |                      |          |   |   |
|--------------------------|----------------------|----------|---|---|
|                          | name                 | External |   | - |
|                          | symbol               | External |   | - |
|                          | decimals             | External |   | - |
|                          | totalSupply          | External |   | - |
|                          | balanceOf            | External |   | - |
|                          | allowance            | External |   | - |
|                          | approve              | External | ✓ | - |
|                          | transfer             | External | ✓ | - |
|                          | transferFrom         | External | ✓ | - |
|                          | DOMAIN_SEPARATOR     | External |   | - |
|                          | PERMIT_TYPEHASH      | External |   | - |
|                          | nonces               | External |   | - |
|                          | permit               | External | ✓ | - |
|                          | MINIMULIQUIDITY      | External |   | - |
|                          | factory              | External |   | - |
|                          | token0               | External |   | - |
|                          | token1               | External |   | - |
|                          | getReserves          | External |   | - |
|                          | price0CumulativeLast | External |   | - |
|                          | price1CumulativeLast | External |   | - |
|                          | kLast                | External |   | - |
|                          | mint                 | External | ✓ | - |
|                          | burn                 | External | ✓ | - |
|                          | swap                 | External | ✓ | - |
|                          | skim                 | External | ✓ | - |
|                          | sync                 | External | ✓ | - |
|                          | initialize           | External | ✓ | - |
|                          |                      |          |   |   |
| <b>IUniswapV2Factory</b> | Interface            |          |   |   |
|                          | feeTo                | External |   | - |
|                          | feeToSetter          | External |   | - |
|                          | getPair              | External |   | - |
|                          | allPairs             | External |   | - |
|                          | allPairsLength       | External |   | - |
|                          | createPair           | External | ✓ | - |

|                           |  |                    |         |   |
|---------------------------|--|--------------------|---------|---|
|                           | setFeeTo   | External           | ✓       | - |
|                           | setFeeToSetter   | External           | ✓       | - |
|                           |  |                    |         |   |
| <b>IUniswapV2Router01</b> | Interface  |                    |         |   |
|                           | factory  | External           |         | - |
|                           | WAVAX  | External           |         | - |
|                           | addLiquidity   | External           | ✓       | - |
|                           | addLiquidityAVAX   | External           | Payable | - |
|                           | removeLiquidity  | External           | ✓       | - |
|                           | removeLiquidityAVAX  | External           | ✓       | - |
|                           | removeLiquidityWithPermit                                  | External           | ✓       | - |
|                           | removeLiquidityAVAXWithPermit                              | External           | ✓       | - |
|                           | swapExactTokensForTokens                                   | External           | ✓       | - |
|                           | swapTokensForExactTokens                                   | External           | ✓       | - |
|                           | swapExactAVAXForTokens                                     | External           | Payable | - |
|                           | swapTokensForExactAVAX                                     | External           | ✓       | - |
|                           | swapExactTokensForAVAX                                     | External           | ✓       | - |
|                           | swapAVAXForExactTokens                                     | External           | Payable | - |
|                           | quote  | External           |         | - |
|                           | getAmountOut   | External           |         | - |
|                           | getAmountIn  | External           |         | - |
|                           | getAmountsOut  | External           |         | - |
|                           | getAmountsIn   | External           |         | - |
|                           |  |                    |         |   |
| <b>IUniswapV2Router02</b> | Interface  | IUniswapV2Router01 |         |   |
|                           | removeLiquidityAVAXSupportingFeeOnTransferTokens           | External           | ✓       | - |
|                           | removeLiquidityAVAXWithPermitSupportingFeeOnTransferTokens | External           | ✓       | - |
|                           | swapExactTokensForTokensSupportingFeeOnTransferTokens      | External           | ✓       | - |
|                           | swapExactAVAXForTokensSupportingFeeOnTransferTokens        | External           | Payable | - |
|                           | swapExactTokensForAVAXSupportingFeeOnTransferTokens        | External           | ✓       | - |
|                           |  |                    |         |   |

| GAMETOKEN | Implementation            | Context,<br>ERC20,<br>Ownable |         |              |
|-----------|---------------------------|-------------------------------|---------|--------------|
|           | <Receive Ether>           | External                      | Payable | -            |
|           | <Constructor>             | Public                        | ✓       | ERC20        |
|           | setPublicTradingOpened    | External                      | ✓       | onlyOwner    |
|           | isPublicTradingOpened     | External                      |         | -            |
|           | setRewardPool             | External                      | ✓       | onlyOwner    |
|           | setTxLimitToken           | External                      | ✓       | onlyOwner    |
|           | getTxLimitToken           | External                      |         | -            |
|           | setMaxWalletSizeToken     | External                      | ✓       | onlyOwner    |
|           | getMaxWalletSizeToken     | External                      |         | -            |
|           | transfer                  | Public                        | ✓       | transferable |
|           | transferFrom              | Public                        | ✓       | transferable |
|           | addLiquidity              | External                      | ✓       | onlyOwner    |
|           | setSwapEnabled            | External                      | ✓       | onlyOwner    |
|           | setPairAddress            | External                      | ✓       | onlyOwner    |
|           | setNumOfTokensForDisperse | External                      | ✓       | onlyOwner    |
|           | getNumOfTokensForDisperse | External                      |         | -            |
|           | _isBuy                    | Private                       |         |              |
|           | _isSale                   | Private                       |         |              |
|           | _swapTokensForAVAX        | Private                       | ✓       | lockTheSwap  |
|           | _readyToSwap              | Private                       |         |              |
|           | _payToll                  | Private                       | ✓       |              |
|           | _feeProcess               | Private                       | ✓       |              |
|           | withdraw                  | External                      | ✓       | onlyOwner    |
|           | distribute                | External                      | ✓       | onlyOwner    |
|           | transferOwnership         | Public                        | ✓       | onlyOwner    |

# Contract Flow



## Domain Info

|                               |   |
|-------------------------------|---|
| <b>Domain Name</b>            | cgame.tech  |
| <b>Registry Domain ID</b>     | D274172382-CNIC   |
| <b>Creation Date</b>          | 2022-02-08T21:37:25+00:00                                   |
| <b>Updated Date</b>           | 2022-03-08T12:02:25+00:00                                   |
| <b>Registry Expiry Date</b>   | 2023-02-08T23:59:59+00:00                                   |
| <b>Registrar WHOIS Server</b> | whois.tucows.com  |
| <b>Registrar URL</b>          | <a href="http://www.tucows.com/">http://www.tucows.com/</a> |
| <b>Registrar</b>              | Tucows.com Co.  |
| <b>Registrar IANA ID</b>      | 69  |

The domain has been created 3 months before the creation of the audit. It will expire in 9 months.

There is no public billing information, the creator is protected by the privacy settings.



## Summary

CryptoGame is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions. The fees are fixed to 8% only for sales.

## Disclaimer

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The Cyberscope team disclaims any liability for the resulting losses.

# About Cyberscope

Coinscope audit and K.Y.C. service has been rebranded to Cyberscope.

Coinscope is the leading early coin listing, voting and auditing authority firm. The audit process is analyzing and monitoring many aspects of the project. That way, it gives the community a good sense of security using an informative report and a generic score.

Cyberscope and Coinscope are aiming to make crypto discoverable and efficient globally. They provides all the essential tools to assist users draw their own conclusions.



The Cyberscope team

<https://www.cyberscope.io>