Coinsult

Advanced Manual Smart Contract Audit

Project: Coin1

Website: Coming Soon

Low-Risk	Medium-Risk	High-Risk
6 low-risk code issues found	0 medium-risk code issues found	0 high-risk code issues found

Contract Address

0xd4023cE8AdDb636BcBdaa07a110A19bb6F93A441

Disclaimer

Coinsult is not responsible if a project turns out to be a scam, rug-pull or honeypot. We only provide a detailed analysis for your own research.

Coinsult is not responsible for any financial losses. Nothing in this contract audit is financial advice, please do your own research.

The information provided in this audit is for informational purposes only and should not be considered investment advice. Coinsult does not endorse, recommend, support or suggest to invest in any project.

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Tokenomics

Rank	Address	Quantity (Token)	Percentage
1	0xe82a03fb7aeb4127b0237a376493e2e7af5f869b	10,000,000	100.0000%

Source Code

Coinsult was comissioned by Coin1 to perform an audit based on the following smart contract:

https://bscscan.com/address/0xd4023ce8addb636bcbdaa07a110a19bb6f93a441#code

Manual Code Review

In this audit report we will highlight all these issues:

🟢 Low-Risk

6 low-risk code
issues found

🟡 Medium-Risk

0 medium-risk code
issues found

🔴 High-Risk

0 high-risk code
issues found

The detailed report continues on the next page...

🟢 **Low-Risk:** Could be fixed, will not bring problems.

Contract contains Reentrancy vulnerabilities

Additional information: This combination increases risk of malicious intent. While it may be justified by some complex mechanics (e.g. rebase, reflections, buyback).

More information: Slither

```
function _transfer(
    address from,
    address to,
    uint256 amount
) private {
    require(from != address(0), "ERC20: transfer from the zero address");
    require(to != address(0), "ERC20: transfer to the zero address");
    require(amount &gt; 0, "Transfer amount must be greater than zero");

    uint256 contractTokenBalance = balanceOf(address(this));

    bool overMinTokenBalance = contractTokenBalance &gt;=
        numTokensSellToAddToLiquidity;
    if (
        overMinTokenBalance &amp;&amp;
        !inSwapAndLiquify &amp;&amp;
        from != uniswapV2Pair &amp;&amp;
        swapAndLiquifyEnabled &amp;&amp;
        _liquidityFee !=0 &amp;&amp;
        _marketingFee !=0
    ) {
        contractTokenBalance = numTokensSellToAddToLiquidity;
```

Recommendation

Apply the check-effects-interactions pattern.

Exploit scenario

```
function withdrawBalance(){
    // send userBalance[msg.sender] Ether to msg.sender
    // if mgs.sender is a contract, it will call its fallback function
    if( ! (msg.sender.call.value(userBalance[msg.sender])() ) ){
        throw;
    }
    userBalance[msg.sender] = 0;
}
```

Bob uses the re-entrancy bug to call withdrawBalance two times, and withdraw more than its initial deposit to the contract.

🟢 **Low-Risk:** Could be fixed, will not bring problems.

Too many digits

Literals with many digits are difficult to read and review.

```
_tTotal = 10000000 * 10**_decimals;
_rTotal = (MAX - (MAX % _tTotal));
numTokensSellToAddToLiquidity = 100000 * 10**_decimals;
```

Recommendation

Use: Ether suffix, Time suffix, or The scientific notation

Exploit scenario

```
contract MyContract{
    uint 1_ether = 10000000000000000000;
}
```

While `1_ether` looks like `1 ether`, it is `10 ether`. As a result, it's likely to be used incorrectly.

🟢 **Low-Risk:** Could be fixed, will not bring problems.

No zero address validation for some functions

Detect missing zero address validation.

```
function setMarketingWalletAddress(address _addr) external onlyOwner {
    _marketingWalletAddress = _addr;
}
```

Recommendation

Check that the new address is not zero.

Exploit scenario

```
contract C {

  modifier onlyAdmin {
    if (msg.sender != owner) throw;
    _;
  }

  function updateOwner(address newOwner) onlyAdmin external {
    owner = newOwner;
  }
}
```

Bob calls `updateOwner` without specifying the `newOwner`, soBob loses ownership of the contract.

🟢 **Low-Risk:** Could be fixed, will not bring problems.

Missing events arithmetic

Detect missing events for critical arithmetic parameters.

```
function setSellFeePercent(
    uint256 tFee,
    uint256 lFee,
    uint256 mFee
   ) external onlyOwner {
    _sellTaxFee = tFee;
    _taxFee = _sellTaxFee;
    _sellLiquidityFee = lFee;
    _liquidityFee = _sellLiquidityFee;
    _sellMarketingFee = mFee;
    _marketingFee = _sellMarketingFee;
}

function setBuyFeePercent(
    uint256 tFee,
    uint256 lFee,
    uint256 mFee
) external onlyOwner {
     buyTaxFee = tFee;
```

Recommendation

Emit an event for critical parameter changes.

Exploit scenario

```
contract C {

  modifier onlyAdmin {
    if (msg.sender != owner) throw;
    _;
  }

  function updateOwner(address newOwner) onlyAdmin external {
    owner = newOwner;
  }
}
```

`updateOwner()` has no event, so it is difficult to track off-chain changes in the buy price.

🟢 **Low-Risk:** Could be fixed, will not bring problems.

Conformance to Solidity naming conventions

Allow _ at the beginning of the mixed_case match for private variables and unused parameters.

```
Variable Ownable._owner (#295) is not in mixedCase
Function IUniswapV2Pair.DOMAIN_SEPARATOR() (#395) is not in mixedCase
Function IUniswapV2Pair.PERMIT_TYPEHASH() (#397) is not in mixedCase
Function IUniswapV2Pair.MINIMUM_LIQUIDITY() (#428) is not in mixedCase
Function IUniswapV2Router01.WETH() (#474) is not in mixedCase
Parameter TOKEN.setMarketingWalletAddress(address)._addr (#985) is not in mixedCase
Parameter TOKEN.setSwapAndLiquifyEnabled(bool)._enabled (#1003) is not in mixedCase
Parameter TOKEN.calculateTaxFee(uint256)._amount (#1128) is not in mixedCase
Parameter TOKEN.calculateLiquidityAndMarketingFee(uint256)._amount (#1132) is not in mixedCase
Variable TOKEN._marketingWalletAddress (#687) is not in mixedCase
Variable TOKEN._buyTaxFee (#697) is not in mixedCase
Variable TOKEN._buyLiquidityFee (#698) is not in mixedCase
Variable TOKEN._buyMarketingFee (#699) is not in mixedCase
Variable TOKEN._sellTaxFee (#701) is not in mixedCase
Variable TOKEN._sellLiquidityFee (#702) is not in mixedCase
Variable TOKEN._sellMarketingFee (#703) is not in mixedCase
```

Recommendation

Follow the Solidity naming convention.

Rule exceptions

- Allow constant variable name/symbol/decimals to be lowercase (`ERC20`).
- Allow _ at the beginning of the `mixed_case` match for private variables and unused parameters.

🟢 **Low-Risk:** Could be fixed, will not bring problems.

Costly operations inside a loop

Costly operations inside a loop might waste gas, so optimizations are justified.

```
function includeInReward(address account) external onlyOwner {
    require(_isExcluded[account], "Account is already included");
    for (uint256 i = 0; i &lt; _excluded.length; i++) {
        if (_excluded[i] == account) {
            _excluded[i] = _excluded[_excluded.length - 1];
            _tOwned[account] = 0;
            _isExcluded[account] = false;
            _excluded.pop();
            break;
        }
    }
}
```

Recommendation

Use a local variable to hold the loop computation result.

Exploit scenario

```
contract CostlyOperationsInLoop{

    function bad() external{
        for (uint i=0; i < loop_count; i++){
            state_variable++;
        }
    }

    function good() external{
      uint local_variable = state_variable;
      for (uint i=0; i < loop_count; i++){
        local_variable++;
      }
      state_variable = local_variable;
    }
}
```

Incrementing `state_variable` in a loop incurs a lot of gas because of expensive `SSTORE`s, which might lead to an `out-of-gas`.

Owner privileges

- Owner cannot pause trading
- Owner cannot change max transaction amount
- Owner can set fees higher than 25%
- Owner can exclude from fees

Extra notes by the team

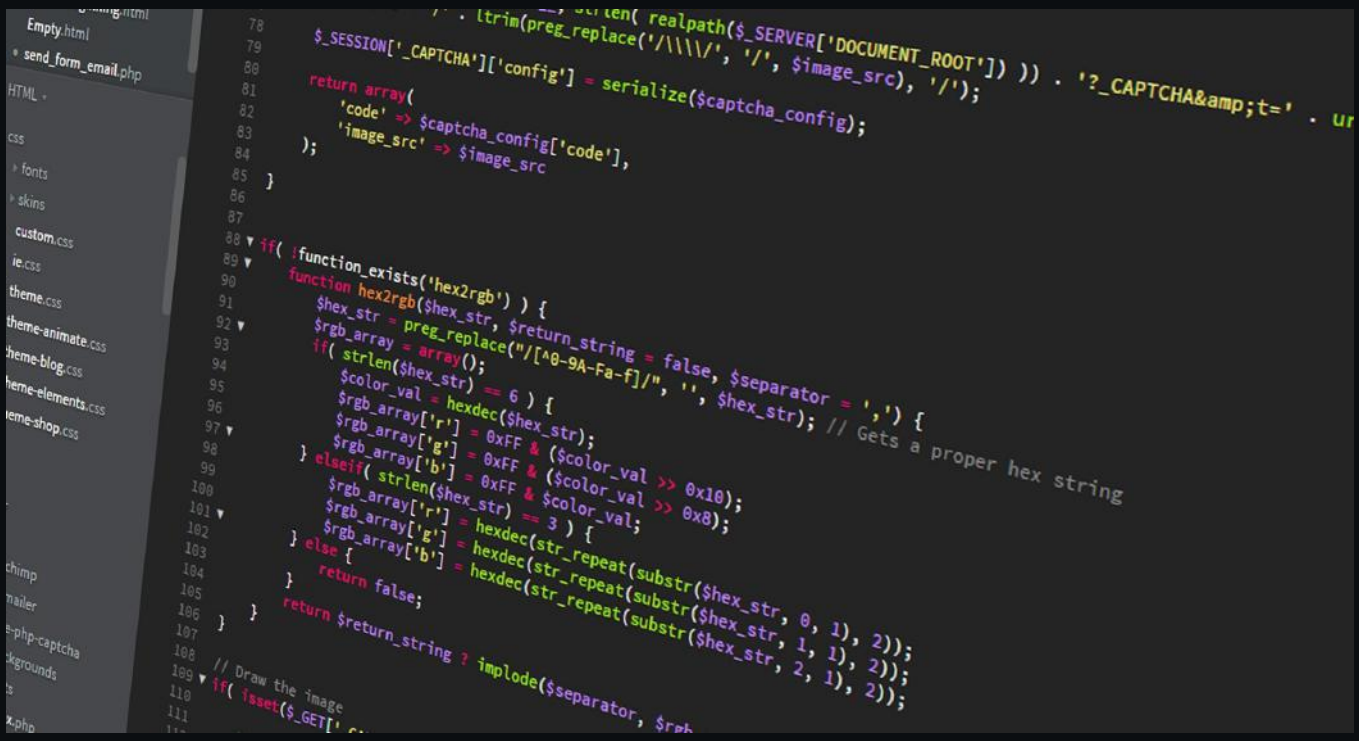
No notes

Contract Snapshot

```
contract TOKEN is Context, IERC20, Ownable {
using SafeMath for uint256;
using Address for address;

mapping(address =&gt; uint256) private _rOwned;
mapping(address =&gt; uint256) private _tOwned;
mapping(address =&gt; mapping(address =&gt; uint256)) private _allowances;
mapping(address =&gt; bool) private _isExcludedFromFee;
mapping(address =&gt; bool) private _isExcluded;
address[] private _excluded;
address public _marketingWalletAddress;
address private _burnAddress = 0x000000000000000000000000000000000000dEaD;
uint256 private constant MAX = ~uint256(0);
uint256 private _tTotal;
uint256 private _rTotal;
uint256 private _tFeeTotal;
string private _name;
string private _symbol;
uint256 private _decimals;

uint256 public _buyTaxFee = 5;
uint256 public _buyLiquidityFee = 5;
uint256 public _buyMarketingFee = 5;

uint256 public _sellTaxFee = 5;
uint256 public _sellLiquidityFee = 5;
uint256 public _sellMarketingFee = 5;

uint256 private _taxFee = _buyTaxFee;
uint256 private _liquidityFee = _buyLiquidityFee;
uint256 private _marketingFee = _buyMarketingFee;

uint256 private _previousTaxFee = _taxFee;
uint256 private _previousMarketingFee = _liquidityFee;
uint256 private _previousLiquidityFee = _marketingFee;

IUniswapV2Router02 public uniswapV2Router;
```

Website Review

Coinsult checks the website completely manually and looks for visual, technical and textual errors. We also look at the security, speed and accessibility of the website. In short, a complete check to see if the website meets the current standard of the web development industry.



- Not Mobile Friendly
- Does contain jQuery errors
- Not SSL Secured
- Contains spelling errors

Note:

Coming soon

Project Overview

KYC verified by Coinsult

Coin1

Completed KYC Verification at Coinsult.net

Date: 1 July 2022

✔ Project Owner Identified

✔ Contract: 0xd4023cE8AdDb636BcBdaa07a110A19bb6F93A441

Coin1

Audited by Coinsult.net

Date: 1 July 2022

✔ Advanced Manual Smart Contract Audit