Coinsult

Advanced Manual Smart Contract Audit

Project: Milkyfinance

Website: http://Milkyfinance.io

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

Contract Address

0xA49abB903a84Bcc4663d2f81145254d5Ab2E5BcA

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.

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Tokenomics

Rank	Address	Quantity (Token)	Percentage
1	0x47472ce42ad63f769ab3a3a88e7bc7767b8e57ab	1,000,000,000	100.0000%

Source Code

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

https://bscscan.com/address/0xA49abB903a84Bcc4663d2f81145254d5Ab2E5BcA#code

Manual Code Review

In this audit report we will highlight all these issues:

Low-Risk

5 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");

    if(from != owner() &amp;&amp; to != owner() &amp;&amp; to != uniswapV2Pair)
        require(balanceOf(to) + amount = SWAP_TOKENS_AT_AMOUNT &amp;&amp; !swapping &amp;&amp; from
        swapping = true;
        uint256 sellTokens = balanceOf(address(this));
        swapAndSendToFee(sellTokens);
        swapping = false;
    }

    _tOwned[from] -= amount;
    uint256 transferAmount = amount;

    //if any account belongs to _isExcludedFromFee account then remove the fee
    if(! isExcludedFromFee[from] &amp;&amp; ! isExcludedFromFee[to]){
```

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.

Avoid relying on block.timestamp

block.timestamp can be manipulated by miners.

```
function addLiquidity(uint256 tokenAmount, uint256 ethAmount) private {
    // approve token transfer to cover all possible scenarios
    _approve(address(this), address(uniswapV2Router), tokenAmount);

    // add the liquidity
    (,uint256 ethFromLiquidity,) = uniswapV2Router.addLiquidityETH {value: ethAmount} (
        address(this),
        tokenAmount,
        0,
        0,
        owner(),
        block.timestamp
    );

    if (ethAmount - ethFromLiquidity &gt; 0)
        payable(_marketingWallet).sendValue (ethAmount - ethFromLiquidity);
}
```

Recommendation

Do not use `block.timestamp`, now or `blockhash` as a source of randomness

Exploit scenario

```
contract Game {

    uint reward_determining_number;

    function guessing() external{
      reward_determining_number = uint256(block.blockhash(10000)) % 10;
    }
}
```

Eve is a miner. Eve calls `guessing` and re-orders the block containing the transaction. As a result, Eve wins the game.

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

Too many digits

Literals with many digits are difficult to read and review.

```
uint256 private _tTotal = 1000000000 * 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.

Missing events arithmetic

Detect missing events for critical arithmetic parameters.

```
function update_Tax(uint256 taxBuy, uint256 taxSell, uint256 taxSell_marketing, uint256 taxSell_dev,
    require(taxBuy&lt;4 &amp;&amp;  taxSell&lt;4 &amp;&amp; taxSell_marketing+taxSell_dev+taxSell_fu
    _taxBuy = taxBuy;
    _taxSell = taxSell;
    _slotMarketing = taxSell_marketing;
    _slotDev = taxSell_dev;
    _slotFund = taxSell_fund;
    _liquidityFee = liquidityFee;
}
```

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.

Redundant Statements

Detect the usage of redundant statements that have no effect.

```
function _msgData() internal view virtual returns (bytes memory) {
    this; // silence state mutability warning without generating bytecode - see https://github.com/et
    return msg.data;
}
```

Recommendation

Remove redundant statements if they congest code but offer no value.

Exploit scenario

```
contract RedundantStatementsContract {

    constructor() public {
        uint; // Elementary Type Name
        bool; // Elementary Type Name
        RedundantStatementsContract; // Identifier
    }

    function test() public returns (uint) {
        uint; // Elementary Type Name
        assert; // Identifier
        test; // Identifier
        return 777;
    }
}
```

Each commented line references types/identifiers, but performs no action with them, so no code will be generated for such statements and they can be removed.

Owner privileges

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

Extra notes by the team

No notes

Contract Snapshot

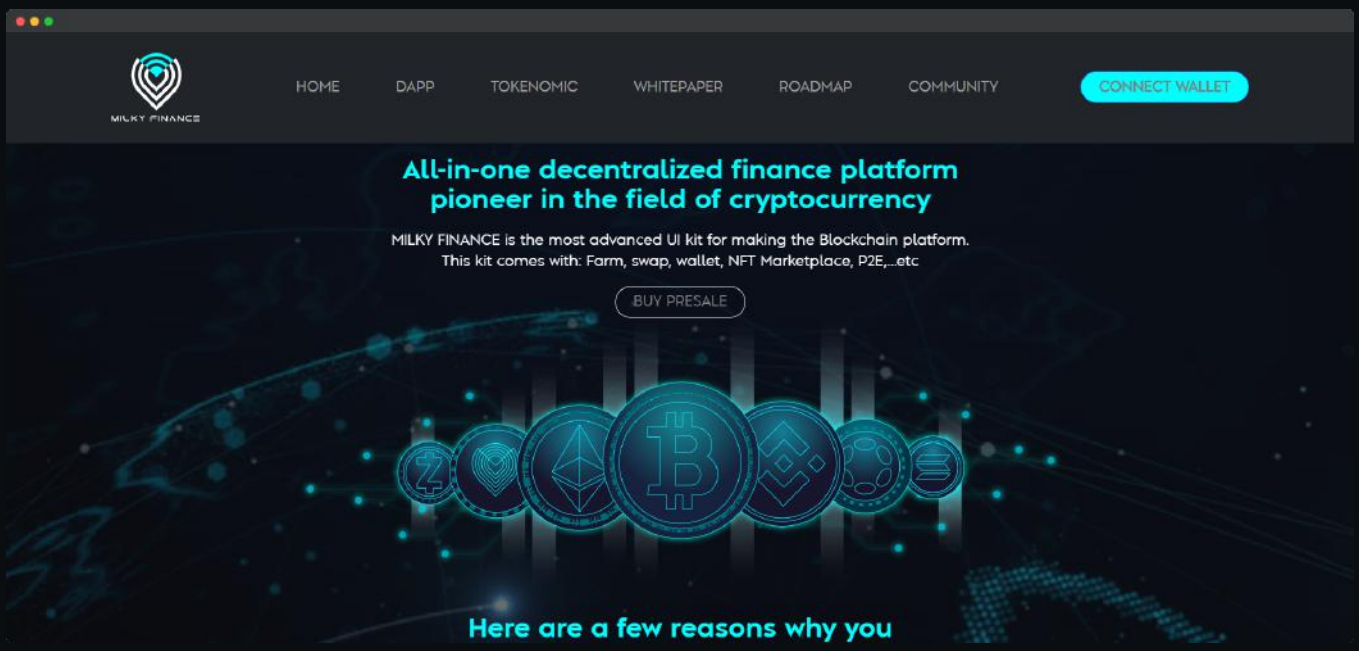
```
contract MilkyFinance is Context, IERC20, Ownable {

string private constant _name = "Milky Finance";
string private constant _symbol = "MIFI";
uint8 private constant _decimals = 18;

uint256 private _tTotal = 1000000000 * 10**_decimals;
uint256 public  _maxTxAmount = 1000000000 * 10**_decimals;           // balance of receiver after bu
uint256 private constant SWAP_TOKENS_AT_AMOUNT = 3 * 10**_decimals; // minimum sto swap token to bnb
uint256 private _liquidityFee;
```

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.



- Mobile Friendly
- Does not contain jQuery errors
- SSL Secured
- No major spelling errors

Project Overview

Not KYC verified by Coinsult

Milkyfinance

Audited by Coinsult.net

Date: 11 July 2022

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