Coinsult

Advanced Manual Smart Contract Audit

Bork Finance

Project: Bork Token

Website: http://borkfinance.dog

🟢 Low-Risk	🟡 Medium-Risk	🔴 High-Risk
4 low-risk code issues found	0 medium-risk code issues found	0 high-risk code issues found

Contract Address

–

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

Not available

Source Code

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

https://github.com/GambleFinance/borkcontract/blob/main/BorkToken.sol

Manual Code Review

In this audit report we will highlight all these issues:

🟢 Low-Risk

4 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.

Change boolean name

```
function updateFee(
    bool feeType,
    uint256 fee
) external onlyOwner {
    require(fee &lt;= 1000,
            &quot;Bork: Fee cannot be more then 10%&quot;);

    if (feeType) { // TRUE == BUY FEE
        BUY_FEE = fee;
    } else { // FALSE == SELL FEE
        SELL_FEE = fee;
    }

    emit FeeUpdated(_msgSender(), feeType, fee);
}
```

Recommendation

For readability it would be better to change ‘feeType’ to ‘isBuy’. True for buys, false for sells.

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

Too many digits

Literals with many digits are difficult to read and review.

```
uint256 feeAmount = amount.mul(fee).div(10000);
```

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 updateDevAddress(
    address payable _dev
) external onlyOwner {
    isExcludedFromFee[developmentAddress] = false;
    emit AddressExcluded(_msgSender(), developmentAddress, false);

    developmentAddress = _dev;
    isExcludedFromFee[developmentAddress] = true;

    emit AddressExcluded(_msgSender(), developmentAddress, true);
}
```

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.

Costly operations inside a loop

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

```
function excludeMultipleAccountsFromFees(
    address[] calldata _accounts,
    bool _excluded
) external onlyOwner {
    for (uint256 i = 0; i &lt; _accounts.length; i++) {
        isExcludedFromFee[_accounts[i]] = _excluded;

        emit AddressExcluded(_msgSender(), _accounts[i], _excluded);
    }
}
```

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 set fees higher than 25%
- 🟢 Owner cannot pause trading
- 🟢 Owner cannot change max transaction amount
- 🟡 Owner can exclude from fees
- 🔴 Owner can mint new tokens

Extra notes by the team

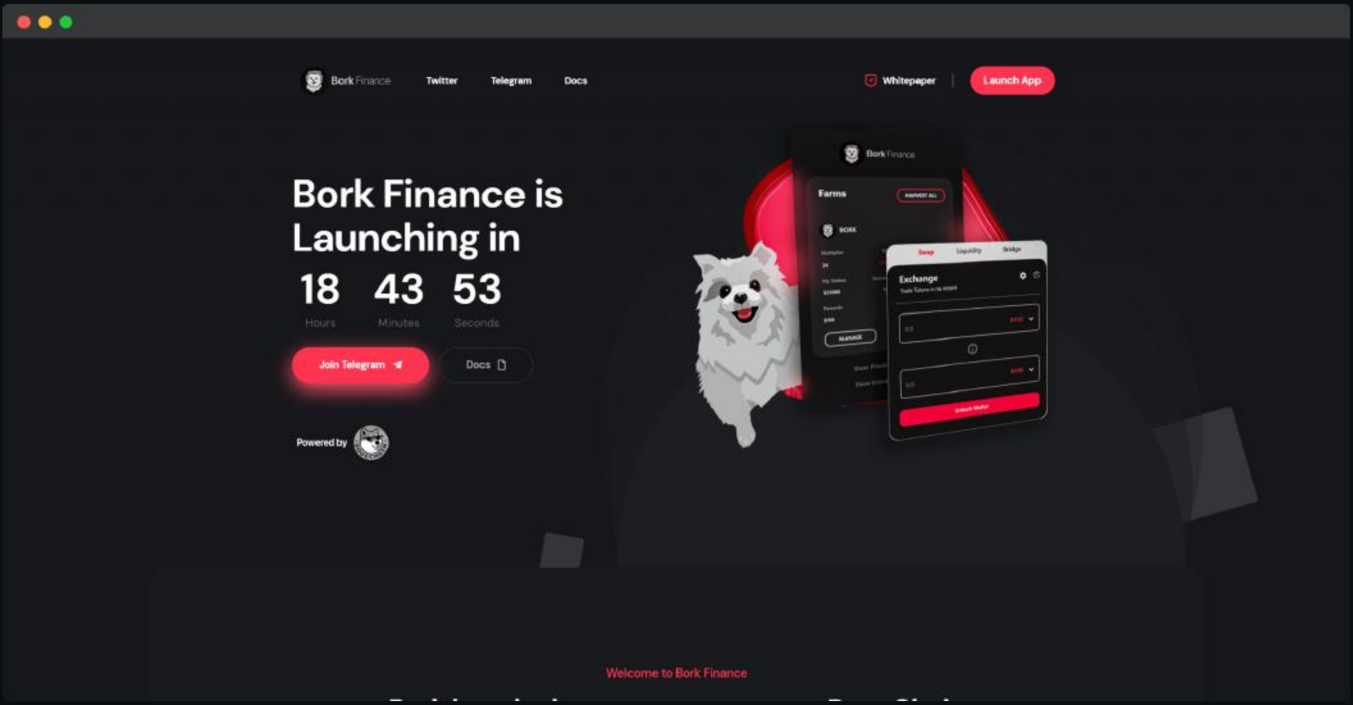
No notes

Contract Snapshot

```
contract Bork is ERC20Burnable, Ownable {
using SafeMath for uint256;

mapping(address =&gt; bool) public isExcludedFromFee;
mapping(address =&gt; bool) public isMinter;
mapping(address =&gt; bool) public whiteListedPair;

uint256 immutable public MAX_SUPPLY;
uint256 public BUY_FEE = 10;
uint256 public SELL_FEE = 10;

address payable public developmentAddress;

event TokenRecoverd(address indexed _user, uint256 _amount);
event FeeUpdated(address indexed _user, bool _feeType, uint256 _fee);
event ToggleV2Pair(address indexed _user, address indexed _pair, bool _flag);
event AddressExcluded(address indexed _user, address indexed _account, bool _flag);
event MinterRoleAssigned(address indexed _user, address indexed _account);
event MinterRoleRevoked(address indexed _user, address indexed _account);

constructor(string memory __name, string memory __symbol, uint256 _maxSupply, uint256 _initialSupply

    require(_initialSupply  0) {
        _mint(_msgSender(), _initialSupply);
    }
}
```

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

Bork Token

Audited by Coinsult.net

Date: 19 August 2022

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