



Building the Futuristic **Blockchain** Ecosystem

# SECURITY AUDIT REPORT

**\$ELY**

# TOKEN OVERVIEW

## Risk Findings

Severity	Found
● High	1
● Medium	0
● Low	0
● Informational	0

## Centralization Risks

Owner Privileges	Description
● Can Owner Set Taxes >25% ?	Not Detected
● Owner needs to enable trading ?	Yes, owner needs to enable trade
● Can Owner Disable Trades ?	Not Detected
● Can Owner Mint ?	Not Detected
● Can Owner Blacklist ?	Not Detected
● Can Owner set Max Wallet amount ?	Not Detected
● Can Owner Set Max TX amount ?	Not Detected

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# OVERVIEW

The Expelee team has performed a line-by-line manual analysis and automated review of the smart contract. The smart contract was analysed mainly for common smart contract vulnerabilities, exploits, and manipulation hacks. According to the smart contract audit:

<b>Audit Result</b>	<b>Passed</b>
<b>KYC Verification</b>	-
<b>Audit Date</b>	<b>11 June 2023</b>

# CONTRACT DETAILS

Token Name: Elyssa AR

Symbol: \$ELY

Network: Ethereum

Language: Solidity

Contract Address: ---

Total Supply: 10,000,000

Owner's Wallet: ---

Deployer's Wallet: ---

# AUDIT METHODOLOGY

## Audit Details

Our comprehensive audit report provides a full overview of the audited system's architecture, smart contract codebase, and details on any vulnerabilities found within the system.

## Audit Goals

The audit goal is to ensure that the project is built to protect investors and users, preventing potentially catastrophic vulnerabilities after launch, that lead to scams and rugpulls.

## Code Quality

Our analysis includes both automatic tests and manual code analysis for the following aspects:

- Exploits
- Back-doors
- Vulnerability
- Accuracy
- Readability

## Tools

- DE
- Open Zeppelin
- Code Analyzer
- Solidity Code
- Compiler
- Hardhat

# VULNERABILITY CHECKS

Design Logic	Passed
Compiler warnings	Passed
Private user data leaks	Passed
Timestamps dependence	Passed
Integer overflow and underflow	Passed
Race conditions & reentrancy. Cross-function race conditions	Passed
Possible delays in data delivery	Passed
Oracle calls	Passed
Front Running	Passed
DoS with Revert	Passed
DoS with block gas limit	Passed
Methods execution permissions	Passed
Economy model	Passed
Impact of the exchange rate on the logic	Passed
Malicious event log	Passed
Scoping and declarations	Passed
Uninitialized storage pointers	Passed
Arithmetic accuracy	Passed
Cross-function race conditions	Passed
Safe Zeppelin module	Passed

# RISK CLASSIFICATION

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and access control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time. We categorize these vulnerabilities by the following levels:

## High Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

## Medium Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

## Low Risk

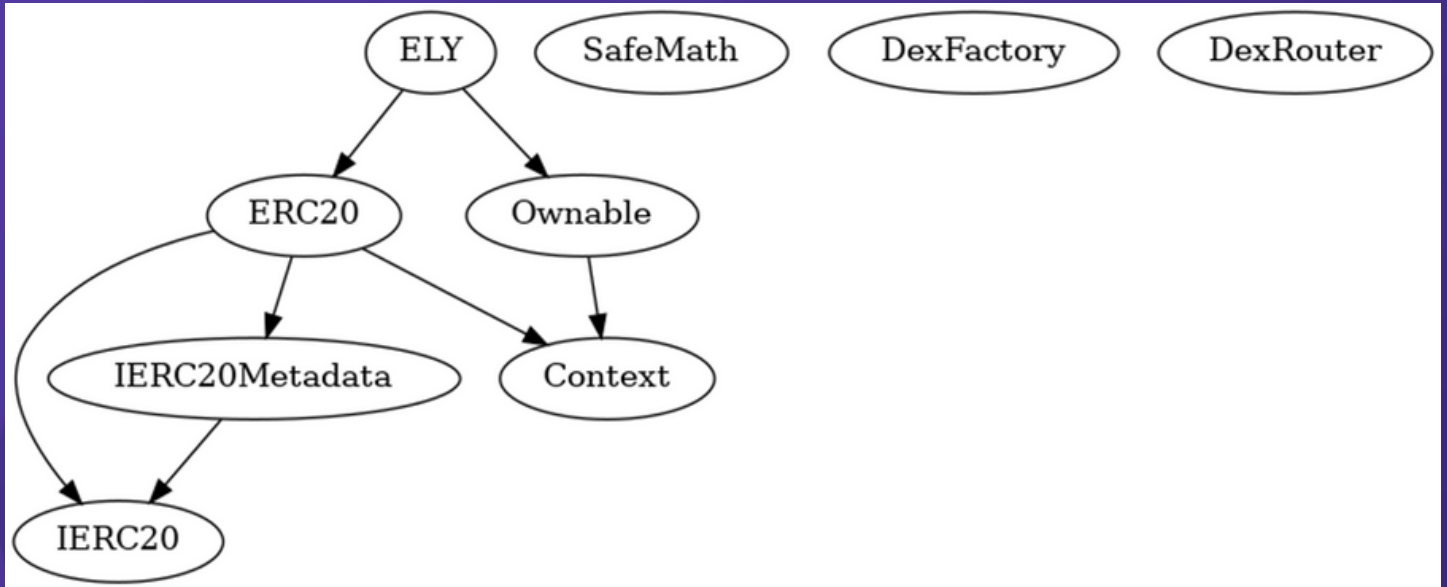
Issues on this level are minor details and warnings that can remain unfixed.

## Informational

Issues on this level are minor details and warnings that can remain unfixed.



# INHERITANCE TREES



# TESTNET VERSION

## Adding Liquidity ✓

**Tx:**

<https://testnet.bscscan.com/tx/0x4825926095902a078f0fbeafb29ba3a606154012f39666fdcb32453b0201e1f6>

=====

## Buying from a fee excluded wallet ✓

**Tx (0% tax):**

<https://testnet.bscscan.com/tx/0x44b4bb4d59e875bb050c2c65588b2e00333aecf7dc025c737d3d03aceb427da8>

=====

## Selling from a fee excluded wallet ✓

**Tx (0% tax):**

<https://testnet.bscscan.com/tx/0x94d3aead406e48e54dc02bd2e4141c6055dbf3315d5762854f6561e28adec1da>

=====

## Transferring using a fee excluded wallet ✓

**Tx (0% tax):**

<https://testnet.bscscan.com/tx/0x8ba852648b94a8355d5b9a3398cf7017b0baf47c732df800371f3b2bd723a16a>

=====

# TESTNET VERSION

**Buying from a regular wallet** ✓

**Tx (0-10% tax):**

<https://testnet.bscscan.com/tx/0xac9e27b2418d1a1e3c9ae7622cfcaa6819d39ed5b1e778bc6198a35456bee092>

=====

**Selling from a regular wallet** ✓

**Tx (0-10% tax):**

<https://testnet.bscscan.com/tx/0x495d09b619806b72f223eb4c0f72a5fec6a6b6b95649784ef825563952ec3853>

=====

**Transferring a regular wallet** ✓

**Tx (0%):**

<https://testnet.bscscan.com/tx/0xecd32ecdb0599cbfd2820a27d4154ff87737b9fabad8fec01c0e17cc925612f1>

=====

**Internal swap (marketing BNB)** ✓

**Tx:**

<https://testnet.bscscan.com/address/0xaad239ed60773e34b8b1682214f7015c845bfb57#internaltx>

=====

# FUNCTION DETAILS

Contract	Type	Bases			
----- ----- ----- ----- -----					
L	**Function Name**	**Visibility**	**Mutability**	**Modifiers**	
**IERC20**   Interface					
L	totalSupply	External	!	NO	!
L	balanceOf	External	!	NO	!
L	transfer	External	!	NO	!
L	allowance	External	!	NO	!
L	approve	External	!	NO	!
L	transferFrom	External	!	NO	!
**Context**   Implementation					
L	_msgSender	Internal	🔒		
L	_msgData	Internal	🔒		
**IERC20Metadata**   Interface   IERC20					
L	name	External	!	NO	!
L	symbol	External	!	NO	!
L	decimals	External	!	NO	!
**ERC20**   Implementation   Context, IERC20, IERC20Metadata					
L	<Constructor>	Public	!	NO	!
L	name	Public	!	NO	!
L	symbol	Public	!	NO	!
L	decimals	Public	!	NO	!
L	totalSupply	Public	!	NO	!
L	balanceOf	Public	!	NO	!
L	transfer	Public	!	NO	!

# FUNCTION DETAILS

```

| L | allowance | Public | ! | | NO ! |
| L | approve | Public | ! | ● | NO ! |
| L | transferFrom | Public | ! | ● | NO ! |
| L | increaseAllowance | Public | ! | ● | NO ! |
| L | decreaseAllowance | Public | ! | ● | NO ! |
| L | _transfer | Internal | 🔒 | ● | |
| L | _mint | Internal | 🔒 | ● | |
| L | _burn | Internal | 🔒 | ● | |
| L | _approve | Internal | 🔒 | ● | |
| L | _spendAllowance | Internal | 🔒 | ● | |
| L | _beforeTokenTransfer | Internal | 🔒 | ● | |
| L | _afterTokenTransfer | Internal | 🔒 | ● | |
|||||
| **SafeMath** | Library | |||
| L | tryAdd | Internal | 🔒 | | |
| L | trySub | Internal | 🔒 | | |
| L | tryMul | Internal | 🔒 | | |
| L | tryDiv | Internal | 🔒 | | |
| L | tryMod | Internal | 🔒 | | |
| L | add | Internal | 🔒 | | |
| L | sub | Internal | 🔒 | | |
| L | mul | Internal | 🔒 | | |
| L | div | Internal | 🔒 | | |
| L | mod | Internal | 🔒 | | |
| L | sub | Internal | 🔒 | | |
| L | div | Internal | 🔒 | | |
| L | mod | Internal | 🔒 | | |
|||||
| **Ownable** | Implementation | Context |||
| L | <Constructor> | Public | ! | ● | NO ! |
| L | owner | Public | ! | | NO ! |
| L | _checkOwner | Internal | 🔒 | | |
| L | renounceOwnership | Public | ! | ● | onlyOwner |
| L | transferOwnership | Public | ! | ● | onlyOwner |
| L | _transferOwnership | Internal | 🔒 | ● | |
|||||
| **DexFactory** | Interface | |||
| L | createPair | External | ! | ● | NO ! |
|||||
| **DexRouter** | Interface | |||
| L | factory | External | ! | | NO ! |
| L | WETH | External | ! | | NO ! |
| L | addLiquidityETH | External | ! | 🟢 | NO ! |
| L | swapExactTokensForETHSupportingFeeOnTransferTokens | External | ! | ● | NO ! |
|||||
| **ELY** | Implementation | ERC20, Ownable |||

```

# FUNCTION DETAILS

```

| L | <Constructor> | Public ! | ● | ERC20 |
| L | setmarketingWallet | External ! | ● | onlyOwner |
| L | setSwapTokensAtAmount | External ! | ● | onlyOwner |
| L | toggleSwapping | External ! | ● | onlyOwner |
| L | setWhitelistStatus | External ! | ● | onlyOwner |
| L | checkWhitelist | External ! | NO ! |
| L | startTrading | External ! | ● | onlyOwner |
| L | updateBuyTax | External ! | ● | onlyOwner |
| L | updateSellTax | External ! | ● | onlyOwner |
| L | _takeTax | Internal 🔒 | ● | |
| L | _transfer | Internal 🔒 | ● | |
| L | internalSwap | Internal 🔒 | ● | |
| L | swapToETH | Internal 🔒 | ● | |
| L | adjustDeadBlock | External ! | ● | onlyOwner |
| L | removeLimits | External ! | ● | onlyOwner |
| L | _antiBot | Internal 🔒 | ● | |
| L | withdrawStuckETH | External ! | ● | onlyOwner |
| L | withdrawStuckTokens | External ! | ● | onlyOwner |
| L | <Receive Ether> | External ! | 🟢 NO ! |

```

## ### Legend

Symbol	Meaning
●	Function can modify state
🟢	Function is payable

# MANUAL REVIEW

## Severity Criteria

Expelee assesses the severity of disclosed vulnerabilities according to methodology based on OWASP standarts.

Vulnerabilities are dividend into three primary risk categroies:

High

Medium

Low

High-level considerations for vulnerabilities span the following key areas when conducting assessments:

- Malicious input handling
- Escalation of privileges
- Arithmetic
- Gas use

Overall Risk Severity				
Impact	HIGH	Medium	High	Critical
	MEDIUM	Low	Medium	High
	LOW	Note	Low	Medium
		LOW	MEDIUM	HIGH
	Likelihood			



# HIGH RISK FINDING

**Category:** Centralization

**Subject:** Enabling trades is not guaranteed

**Severity :** High

## Overview

Owner must enable trades for investors manually. If trades remain disabled, holders won't be able to trade their tokens.

```
function startTrading() external onlyOwner {  
  require(!tradingEnabled, "Trading already enabled");  
  tradingEnabled = true;  
  startBlock = block.number;  
}
```



# ABOUT EXPELEE

Expelee is a product-based aspirational Web3 start-up. Coping up with numerous solutions for blockchain security and constructing a Web3 ecosystem from deal making platform to developer hosting open platform, while also developing our own commercial and sustainable blockchain.

 [www.expelee.com](http://www.expelee.com)

 [expeleeofficial](https://twitter.com/expeleeofficial)

 [expelee](https://medium.com/expelee)

 [Expelee](https://t.me/Expelee)

 [expelee](https://in.linkedin.com/company/expelee)

 [expelee\\_official](https://www.instagram.com/expelee_official)

 [expelee-co](https://github.com/expelee-co)

# expelee

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# DISCLAIMER

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Under no circumstances did Expelee receive a payment to manipulate those results or change the awarding badge that we will be adding in our website. Alway do your own research and protect yourselves from scams.

This document should not be presented as a reason to buy or not buy any particular token. The Expelee team disclaims any liability for the resulting losses.

The logo for Expelee, featuring the word "expelee" in a stylized font. The "ex" is in white, and "pelee" is in orange. The letters are bold and modern.

Building the Futuristic **Blockchain Ecosystem**