



Building the Futuristic **Blockchain** Ecosystem

# SECURITY AUDIT REPORT

APPLEVR

# 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 trades
● 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>10 June 2023</b>

# CONTRACT DETAILS

Token Name: APPLEVR

Symbol: APPLEVR

Network: Binance Smart Chain

Language: Solidity

Contract Address: 0x1E443a91b6134ccF9EB032e224ecE3a9739f0dbc

Total Supply: 10,000,000,000

Owner's Wallet: 0x33707E9baE7Cb5843288a08BcaEee0e33C4Af000

Deployer's Wallet: 0x47315C6E61C031414c28a13E1a54C3f223e07c8e

Testnet.

<https://testnet.bscscan.com/token/0x95e50E9956434b8A2ae29c6b215b684d851A2E3d>

# 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 Zepplin 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

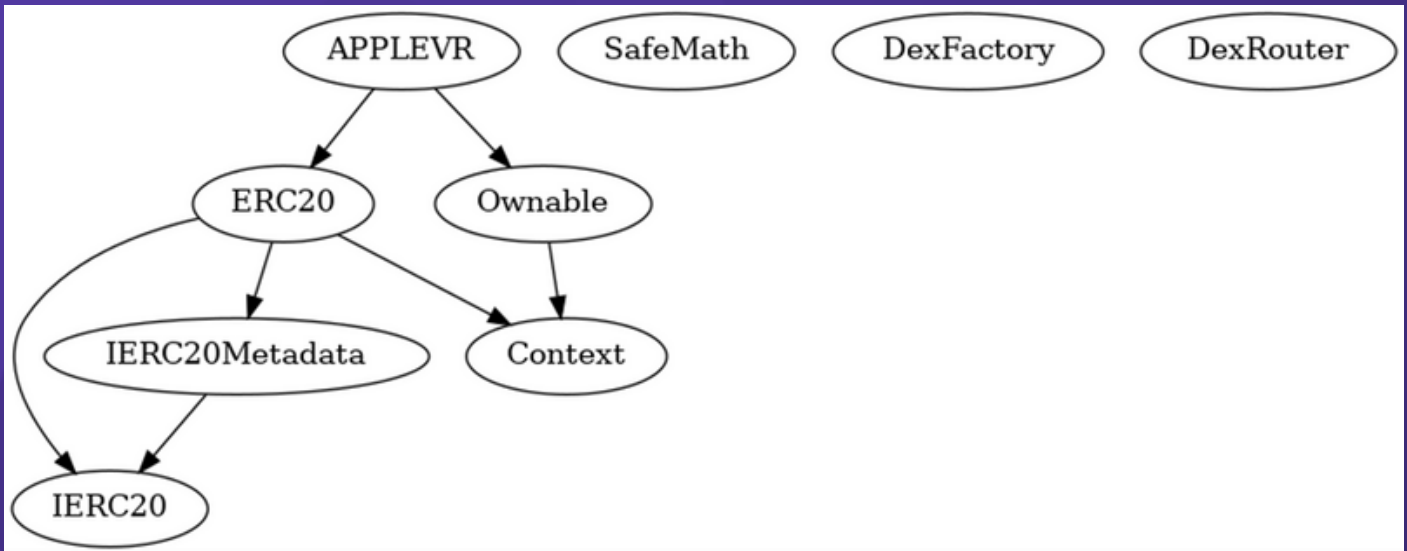
Issues on this level are minor details and warnings that can remain unfixed.

## Informational

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



# INHERITANCE TREES



# 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 !
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	🔒		

# FUNCTION DETAILS



```

| 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 ! |
|||||
| **APPLEVR** | Implementation | ERC20, Ownable |||
| 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 | updateTransferTax | External | ! | ● | onlyOwner |
| L | _takeTax | Internal | 🔒 | ● | |
| L | _transfer | Internal | 🔒 | ● | |
| L | internalSwap | Internal | 🔒 | ● | |
| L | swapToETH | Internal | 🔒 | ● | |
| L | withdrawStuckETH | External | ! | ● | onlyOwner |
| L | withdrawStuckTokens | External | ! | ● | onlyOwner |
| L | <Receive Ether> | External | ! | 🟢 | NO ! |

```

# FUNCTION DETAILS

## ### Legend

Symbol	Meaning
:-----	:-----
	Function can modify state
	Function is payable

# TESTNET VERSION

Adding Liquidity 

Tx:

<https://testnet.bscscan.com/tx/0xeb57a95a480c18123a31f1ba03d71127fbe7882bc27c277da444c7f99a8733da>

=====

Buying from a fee excluded wallet 

Tx (0% tax):

<https://testnet.bscscan.com/tx/0x61be09035dc330c64723b11200ccdb756af92d32a19816f79efa3816cb46abab>

=====

Selling from a fee excluded wallet 

Tx (0% tax):

<https://testnet.bscscan.com/tx/0xd9943191940680cc827b77d94f5c25ac65b8dc61b3d547d437439469cd4a52ad>

=====

Transferring using a fee excluded wallet 

Tx (0% tax):

<https://testnet.bscscan.com/tx/0xa65ae351e0f30607704d32ffc0656c29548e5f3d07abbc90b827a47c7b9aaa2c>

=====

Buying from a regular wallet 

Tx (0-10% tax):

<https://testnet.bscscan.com/tx/0xe76788fe041992dacdebd4a06d0a8fe5d492020009b40c3839a81bf71ea80e9a>

=====

Selling from a regular wallet 

Tx (0-10% tax):

<https://testnet.bscscan.com/tx/0xda87350e83b8d0f869efabf22b2094b3528f7a2af783f4753f83b71f5d2fbdaf>

# TESTNET VERSION

Transferring a regular wallet ✓

Tx (0-10%):

<https://testnet.bscscan.com/tx/0x78f1ede735818149f1ea9d00beb7f4b0e53714057d6f8e8f8b37b9a55dd62a56>

=====

Internal swap (marketing BNB) ✓

Tx:

<https://testnet.bscscan.com/address/0x33707e9bae7cb5843288a08bcaeee0e33c4af000#internaltx>

# 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

## Enabling trades is not guaranteed

Category: **Centralization**

Status: Open

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;  
}
```

### Suggestion:

to mitigate this issue there are several options:

- Enable trades before end of presale
- Transfer ownership to a trusted 3rd party to guarantee enable of trades



# 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)



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# expelee

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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.

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