



Cyberscope

Audit Report

ElonGoatToken

August 2022

SHA256 54c58f236f89e69ac0d31b3cea5c4b598f7243cbc7908246eb4192a21db48f9b

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Contract Review

Contract Name	EGT
Compiler Version	v0.8.12+commit.f00d7308
Testing Deploy	https://bscscan.com/token/0xaB7272F0Dadb12db8F38B0B2f34723Fccc3D8258
Decimals	9
Domain	elongoat.io

Audit Updates

Initial Audit	10th August 2022
Corrected	15th August 2022

Source Files

Filename	SHA256
EGT.sol	54c58f236f89e69ac0d31b3cea5c4b598f7243cbc7908246eb4192a21db48f9b
Utils.sol	9dc9f671e853cfd49be5720faf4de2b169ba55e60358a2c0613522a3028b735d

Contract Analysis

● Critical ● Medium ● Minor ● Pass

Severity	Code	Description	Status
●	ST	Contract Owner is not able to stop or pause transactions	
●	OCTD	Contract Owner is not able to transfer tokens from specific address	
●	OTUT	Owner Transfer User's Tokens	
●	ELFM	Contract Owner is not able to increase fees more than a reasonable percent (25%)	
●	ULTW	Contract Owner is not able to increase the amount of liquidity taken by dev wallet more than a reasonable percent	Acknowledged
●	MT	Contract Owner is not able to mint new tokens	
●	BT	Contract Owner is not able to burn tokens from specific wallet	
●	BC	Contract Owner is not able to blacklist wallets from selling	

ULTW - Unlimited Liquidity to Team Wallet

Criticality	minor
Location	contract.sol#L458
Status	Acknowledged

Description

The contract owner has the authority to transfer funds without limit to the team wallet. These funds have been accumulated from fees collected from the contract. The owner may take advantage of it by calling the `sendShares` methods.

```
function sendShares() external onlyRole(ADMIN_AUTH) {  
    _sendShares();  
}
```

Recommendation

The contract could embody a check for the maximum amount of funds that can be swapped. Since a huge amount may volatile the token's price.

The team should carefully manage the private keys of the owner's account. We strongly recommend a powerful security mechanism that will prevent a single user from accessing the contract admin functions. That risk can be prevented by temporarily locking the contract or renouncing ownership.

Team Update 15th August 2022

This is actually a feature, the token price can not be affected by even a large amount of ETH stored on the contract, since it's only transferring the ETH and using some of it to put into the liquidity pool with the `_deltaReserve`.

Contract Diagnostics

● Critical ● Medium ● Minor

Severity	Code	Description	Status
●	SU	Subtraction Underflow	Acknowledged
●	L01	Public Function could be Declared External	
●	L03	Redundant Statements	
●	L04	Conformance to Solidity Naming Conventions	
●	L09	Dead Code Elimination	

SU - Subtraction Underflow

Criticality	critical
Location	contract.sol#L289,349
Status	Acknowledged

Description

The contract contains subtraction expressions where the minuend is not checked if it is greater than subtrahend. As a result, the contract may underflow.

```
_deltaLPReserve = _deltaLPReserve.sub(amountToken);  
//  
balanceOf(address(this)).sub(  
    _deltaLPReserve  
)
```

Recommendation

The contract should yield zero value if the subtrahend is greater than the minuend.

Team Update 15th August 2022

This is actually not possible since the `_deltaLPReserve` can never be greater than the contract's token balance. Additionally, we are using `SafeMath` to prevent underflows for large `uint256`. Typo in ... not checked.

Auditor's statement 15th August 2022

Deterministically it can happen since it tries to synchronize the variable according to an external factor. For instance, in the future the router may change (`_setRouterAddress`) and the returned value of `addLiquidity` may not follow the contract's specification. Generally, it is a good practice to sanitize the contract's variables when it interacts with external sources.

L01 - Public Function could be Declared External

Criticality	minor
Location	contracts/EGT.sol#L171 contracts/Utils.sol#L571,592,615

Description

Public functions that are never called by the contract should be declared external to save gas.

```
renounceRole  
revokeRole  
grantRole  
transfer
```

Recommendation

Use the external attribute for functions never called from the contract.

L03 - Redundant Statements

Criticality

minor

Location

contracts/EGT.sol#L116,117,118,119

Description

Detect the usage of redundant statements that have no effect.

EGT

Recommendation

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

L04 - Conformance to Solidity Naming Conventions

Criticality	minor
Location	contracts/EGT.sol#L342,364,409,543,564,581,616,617,618,695,706,719,724,834,838 contracts/Utils.sol#L750,752,782,826

Description

Solidity defines a naming convention that should be followed. Rule exceptions:

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

```
WETH
MINIMUM_LIQUIDITY
PERMIT_TYPEHASH
DOMAIN_SEPARATOR
O_SellValue
ETHAmount
O_BuyValue
_enabled
_minimumETHToTransfer
...
```

Recommendation

Follow the Solidity naming convention.

<https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions>.

L09 - Dead Code Elimination

Criticality	minor
Location	contracts/Utils.sol#L176,134,141,149,163,121,336,311

Description

Functions that are not used in the contract, and make the code's size bigger.

```
toString  
toHexString  
sendValue  
functionCallWithValue  
functionCall  
_functionCallWithValue
```

Recommendation

Remove unused functions.

Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
EGT	Implementation	Context, IERC20, AccessControl		
	initialize	External	✓	-
	name	External		-
	symbol	External		-
	decimals	External		-
	totalSupply	External		-
	balanceOf	Public		-
	transfer	Public	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
	increaseAllowance	External	✓	-
	decreaseAllowance	External	✓	-
	_approve	Private	✓	
	_transfer	Private	✓	
	safeTransferETH	Internal	✓	
	swapAndLiquify	Internal	✓	lockForSwap
	reAddLiquidity	Internal	✓	
	addLiquidity	Internal	✓	
	swapTokensForEth	Internal	✓	
	getBuyValue	Internal		
	getSellValue	Internal		
	_sendShares	Internal	✓	lockForSplitShare
	sendShares	External	✓	onlyRole

	provideLP	External	Payable	-
	_transferStandard	Internal	✓	
	_transferToPair	Internal	✓	
	_transferFromPair	Internal	✓	
	_transferWithTax	Internal	✓	
	isExcludedFromFee	External		-
	includeInFee	External	✓	onlyRole
	excludeFromFee	External	✓	onlyRole
	setMarketingAddress	External	✓	onlyRole
	setBuyBackAddress	External	✓	onlyRole
	setDevelopmentAddress	External	✓	onlyRole
	_setOperatorsAddresses	Internal	✓	
	setOperatorsAddresses	External	✓	onlyRole
	setBuyBackShare	External	✓	onlyRole
	setMarketingShare	External	✓	onlyRole
	setDevelopmentShare	External	✓	onlyRole
	setLPShare	External	✓	onlyRole
	setBuyTax	External	✓	onlyRole
	getBuyTax	External		-
	setSellTax	External	✓	onlyRole
	getSellTax	External		-
	getTokenAutoSwapLimit	External		-
	setTokenAutoSwapLimit	External	✓	onlyRole
	getETHAutoTransferLimit	External		-
	setETHAutoTransferLimit	External	✓	onlyRole
	setSwapAndLiquifyEnabled	External	✓	onlyRole
	setAutoSplitSharesEnables	External	✓	onlyRole
	enableUniswap	External	✓	onlyRole
	setAcceptedSlippage	External	✓	onlyRole
	getAcceptedSlippage	External		onlyRole
	setAcceptedFeeOnAdd	External	✓	onlyRole
	getAcceptedFeeOnAdd	External		onlyRole
	_setRouterAddress	Internal	✓	
	setRouterAddress	External	✓	onlyRole
	totalDevelopmentTaxCollected	External		onlyRole

	totalMarketingTaxCollected	External		onlyRole
	totalBuyBackTaxCollected	External		onlyRole
	totalLPTaxCollected	External		onlyRole
	totalTaxCollected	External		onlyRole
	getDeltaReserve	External		-
	depositIntoReserve	External	✓	-
	burn	External	✓	-
	O_BuyValue	External		-
	O_SellValue	External		-
	<Receive Ether>	External	Payable	-
Context	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
IERC20	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
SafeMath	Library			
	add	Internal		
	sub	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	div	Internal		
	mod	Internal		
	mod	Internal		
Address	Library			
	isContract	Internal		

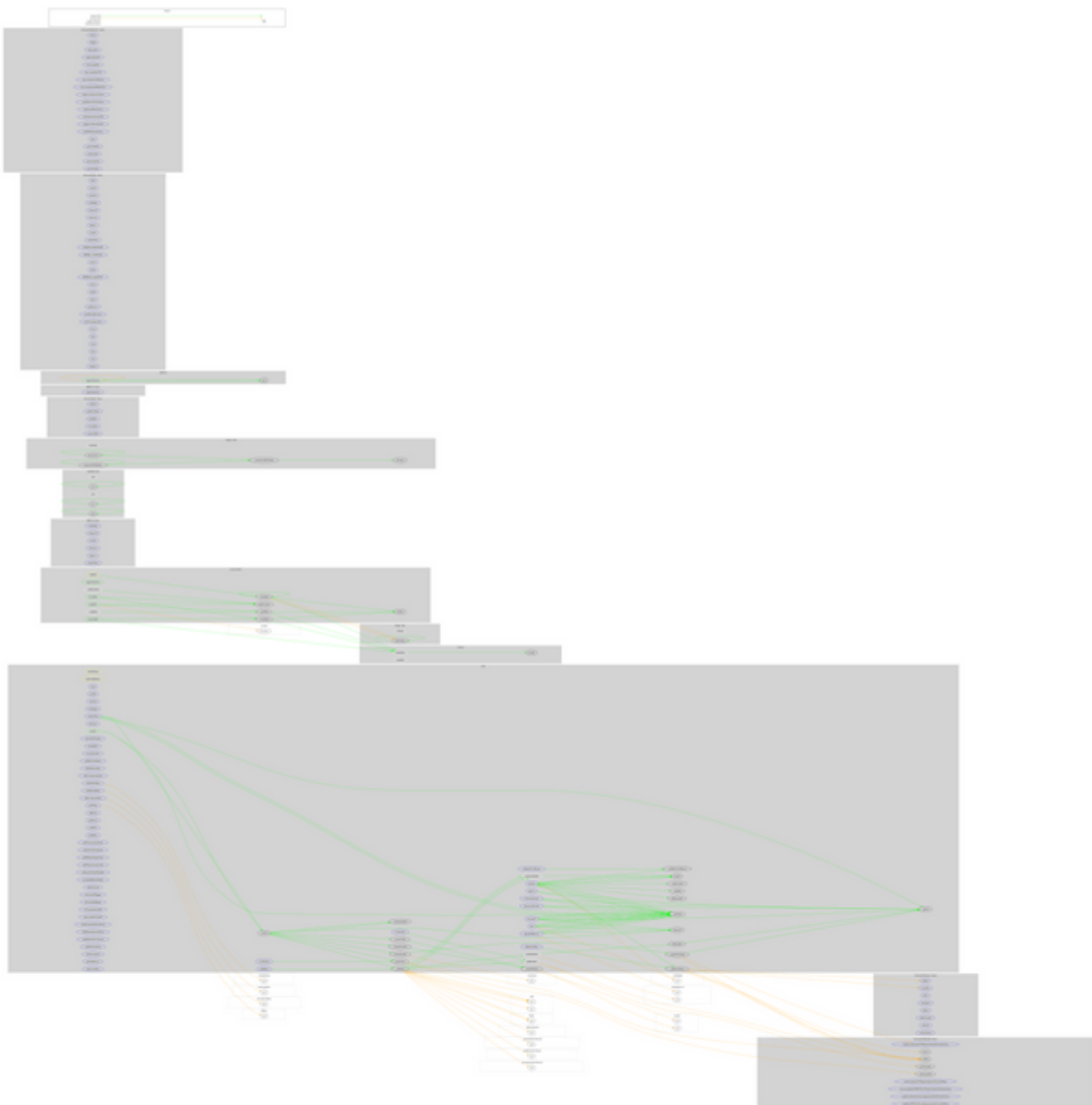
	sendValue	Internal	✓	
	functionCall	Internal	✓	
	functionCall	Internal	✓	
	functionCallWithValue	Internal	✓	
	functionCallWithValue	Internal	✓	
	_functionCallWithValue	Private	✓	
IAccessControl	Interface			
	hasRole	External		-
	getRoleAdmin	External		-
	grantRole	External	✓	-
	revokeRole	External	✓	-
	renounceRole	External	✓	-
Strings	Library			
	toString	Internal		
	toHexString	Internal		
	toHexString	Internal		
IERC165	Interface			
	supportsInterface	External		-
ERC165	Implementation	IERC165		
	supportsInterface	Public		-
AccessControl	Implementation	Context, IAccessControl, ERC165		
	supportsInterface	Public		-
	hasRole	Public		-
	_checkRole	Internal		
	_checkRole	Internal		
	getRoleAdmin	Public		-
	grantRole	Public	✓	onlyRole

	revokeRole	Public	✓	onlyRole
	renounceRole	Public	✓	-
	_setupRole	Internal	✓	
	_setRoleAdmin	Internal	✓	
	_grantRole	Internal	✓	
	_revokeRole	Internal	✓	
IUniswapV2Factory	Interface			
	feeTo	External		-
	feeToSetter	External		-
	getPair	External		-
	allPairs	External		-
	allPairsLength	External		-
	createPair	External	✓	-
	setFeeTo	External	✓	-
	setFeeToSetter	External	✓	-
IUniswapV2Pair	Interface			
	name	External		-
	symbol	External		-
	decimals	External		-
	totalSupply	External		-
	balanceOf	External		-
	allowance	External		-
	approve	External	✓	-
	transfer	External	✓	-
	transferFrom	External	✓	-
	DOMAIN_SEPARATOR	External		-
	PERMIT_TYPEHASH	External		-
	nonces	External		-
	permit	External	✓	-
	MINIMUM_LIQUIDITY	External		-
	factory	External		-

	token0	External		-
	token1	External		-
	getReserves	External		-
	price0CumulativeLast	External		-
	price1CumulativeLast	External		-
	kLast	External		-
	burn	External	✓	-
	swap	External	✓	-
	skim	External	✓	-
	sync	External	✓	-
	initialize	External	✓	-
IUniswapV2Router01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidity	External	✓	-
	addLiquidityETH	External	Payable	-
	removeLiquidity	External	✓	-
	removeLiquidityETH	External	✓	-
	removeLiquidityWithPermit	External	✓	-
	removeLiquidityETHWithPermit	External	✓	-
	swapExactTokensForTokens	External	✓	-
	swapTokensForExactTokens	External	✓	-
	swapExactETHForTokens	External	Payable	-
	swapTokensForExactETH	External	✓	-
	swapExactTokensForETH	External	✓	-
	swapETHForExactTokens	External	Payable	-
	quote	External		-
	getAmountOut	External		-
	getAmountIn	External		-
	getAmountsOut	External		-
	getAmountsIn	External		-
IUniswapV2Router02	Interface	IUniswapV2		

uter02		Router01		
	removeLiquidityETHSupportingFeeOnTransferTokens	External	✓	-
	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-

Contract Flow



Domain

Domain Name	elongoat.io
Registry Domain ID	7b50e894b9fe44268b09c8c90d6c7a5b-DONUTS
Creation Date	2021-09-17T09:15:18Z
Updated Date	2022-03-26T02:52:54Z
Registry Expiry Date	2023-09-17T09:15:18Z
Registrar WHOIS Server	whois.godaddy.com/
Registrar URL	http://www.godaddy.com/domains/search.aspx?ci=8990
Registrar	GoDaddy.com, LLC
Registrar IANA ID	146

The domain was created about 1 year before the creation of the audit.

There is no public billing information, the creator is protected by the privacy settings.

Summary

ElonGoatToken is an interesting project that has a friendly and growing community. The contract owner has the authority to transfer funds to the team's wallet. Other than that, the contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions. There is also a limit of max 25% fees.

Team Update 15th August 2022

The team has acknowledged the issues and added comments on every finding.

Disclaimer

All the content provided in this document is for general information only and should not be used as financial advice or a reason to buy any investment.

Cyberscope team provides no guarantees against the sale of team tokens or the removal of liquidity by the project audited in this document. Always Do your own research and protect yourselves from being scammed.

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About Cyberscope

Coinscope audit and K.Y.C. service has been rebranded to Cyberscope.

Coinscope is the leading early coin listing, voting and auditing authority firm. The audit process is analyzing and monitoring many aspects of the project. That way, it gives the community a good sense of security using an informative report and a generic score.

Cyberscope and Coinscope are aiming to make crypto discoverable and efficient globally. They provide all the essential tools to assist users draw their own conclusions.



The Cyberscope team

<https://www.cyberscope.io>