



Cyberscope

# Audit Report

## ACG

June 2023

Network    BSC

Address    0x5a1da94ddd7cd2cc390917467cbead125158d506

Audited by    © cyberscope

# Analysis

● Critical ● Medium ● Minor / Informative ● Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OTUT	Transfers User's Tokens	Passed
●	ELFM	Exceeds Fees Limit	Passed
●	MT	Mints Tokens	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses	Passed

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## Review

Contract Name	ACG
Compiler Version	v0.8.17+commit.8df45f5f
Optimization	200 runs
Explorer	<a href="https://bscscan.com/address/0x5a1da94ddd7cd2cc390917467cbead125158d506">https://bscscan.com/address/0x5a1da94ddd7cd2cc390917467cbead125158d506</a>
Address	0x5a1da94ddd7cd2cc390917467cbead125158d506
Network	BSC
Symbol	ACG
Decimals	18
Total Supply	1,000,000,000

## Audit Updates

Initial Audit	23 May 2023
Corrected Phase 2	28 May 2023
Corrected Phase 3	05 Jun 2023
Corrected Phase 4	09 Jun 2023
Corrected Phase 5	10 Jun 2023

## Source Files

Filename	SHA256
<b>contracts/acg.sol</b>	705ea96b78590c445e5b736c7d95502c7123f3d7da8833fbffb6c17735f97ff3
<b>contracts/contracts/access/Ownable.sol</b>	42df7a70b8190e7c8e3aeb443aeacc2b23b389b18fa2ce00e9eb60a367a2bb20
<b>contracts/contracts/interfaces/IUniswapV2Factory.sol</b>	3dd4c1f051cee242d1c81b3868d19d983706f47dc6d4e61c83e8645dab7b190f
<b>contracts/contracts/interfaces/IUniswapV2Pair.sol</b>	d031a0cf0541e16cc08a0772453796dcbf77727976822ac038dbea47e16171cb
<b>contracts/contracts/interfaces/IUniswapV2Router01.sol</b>	9e9232b0ab8af12bf698a622047a0057ab2b5b068360e24c8599576a40653601
<b>contracts/contracts/interfaces/IUniswapV2Router02.sol</b>	add2f9ec336a24dfe0fcf25cd27fd11860fa09f8e303867f5188b2b1769b31e4
<b>contracts/contracts/token/ERC20/ERC20.sol</b>	bce14c3fd3b1a668529e375f6b70ffdf9cef8c4e410ae99608be5964d98fa701
<b>contracts/contracts/token/ERC20/extensions/IERC20Metadata.sol</b>	af5c8a77965cc82c33b7ff844deb9826166689e55dc037a7f2f790d057811990
<b>contracts/contracts/token/ERC20/extensions/IERC20Permit.sol</b>	2919f8aa74c48a2fc38fff7875ebc9d1604e9180f8c57416ba1ee589fe0dde60
<b>contracts/contracts/token/ERC20/IERC20.sol</b>	94f23e4af51a18c2269b355b8c7cf4db8003d075c9c541019eb8dcf4122864d5
<b>contracts/contracts/token/ERC20/SafeERC20.sol</b>	1d489ce3f5dd4966c090782c7547f51128968221f592301153c0644dfe862179
<b>contracts/contracts/utils/Address.sol</b>	8160a4242e8a7d487d940814e5279d934e81f0436689132a4e73394bab084a6d

**contracts/contracts/utls/Context.sol**

```
1458c260d010a08e4c20a4a517882259a2  
3a4baa0b5bd9add9fb6d6a1549814a
```

## Findings Breakdown

0

● Critical	0
● Medium	0
● Minor / Informative	0

Severity	Unresolved	Acknowledged	Resolved	Other
● Critical	0	0	0	0
● Medium	0	0	0	0
● Minor / Informative	0	0	0	0

## Functions Analysis

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
ACG	Implementation	ERC20, Ownable		
		Public	✓	ERC20
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
		External	Payable	-
	_approve	Internal	✓	
	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	getBNBBalance	Public		-
	getErc20TokenFeeBalance	Public		-
	getErc20TokensBalance	Public		-
	_checkTokenWBNBPair	Internal		
	setUSDTAddress	External	✓	onlyOwner
	setSpecialAddress	External	✓	onlyOwner
	setLiquidityPoolToUse	External	✓	onlyOwner



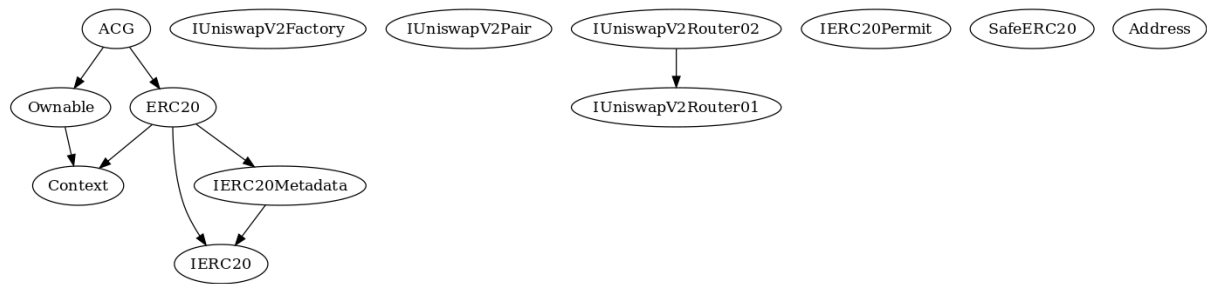
	approveRouterToSpendTokens	External	✓	onlyOwner
	setSwapRouter	External	✓	onlyOwner
	setSwapThresholdLimit	External	✓	onlyOwner
	setPenaltyTxAmount	External	✓	onlyOwner
	setErc20TokenAddress	External	✓	onlyOwner
	setAntiBotStatus	External	✓	onlyOwner
	setMaxBotSellCount	External	✓	onlyOwner
	setBotSellTimeLimit	External	✓	onlyOwner
	setOperationWallet	External	✓	onlyOwner
	setMarketingWallet	External	✓	onlyOwner
	setPoolsLeaderboardWallet	External	✓	onlyOwner
	setCommunityWallet	External	✓	onlyOwner
	setTreasuryOneWallet	External	✓	onlyOwner
	setTreasuryTwoWallet	External	✓	onlyOwner
	setPenaltyWallet	External	✓	onlyOwner
	_updateFees	Private	✓	
	_calculateTotalNewFees	Internal		
	setOperationFeePercent	External	✓	onlyOwner feesNotBeingSet
	setMarketingFeePercent	External	✓	onlyOwner feesNotBeingSet
	setLiquidityFeePercent	External	✓	onlyOwner feesNotBeingSet
	setPoolsLeaderboardFeePercent	External	✓	onlyOwner feesNotBeingSet

	setCommunityFeePercent	External	✓	onlyOwner feesNotBeingSet
	setTreasuryOneFeePercent	External	✓	onlyOwner feesNotBeingSet
	setTreasuryTwoFeePercent	External	✓	onlyOwner feesNotBeingSet
	setPenaltyFeePercent	External	✓	onlyOwner feesNotBeingSet
	_removeAllFees	Private	✓	
	_restoreAllFees	Private	✓	
	excludeFromFee	Public	✓	onlyOwner
	includeInFee	Public	✓	onlyOwner
	setSwapAndLiquifyEnabled	Public	✓	onlyOwner
	_calculateFees	Private		
	_calculateBuyFee	Private		
	_calculateSellFee	Private		
	_calculateFee	Private		
	_getCurrentSupply	Private		
	_getRate	Private		
	tokenFromReflection	Public		-
	_reflectFee	Private	✓	
	_getValues	Private		
	_getTValues	Private		
	_getRValues	Private		
	_calculateERC20TokenFees	Private		

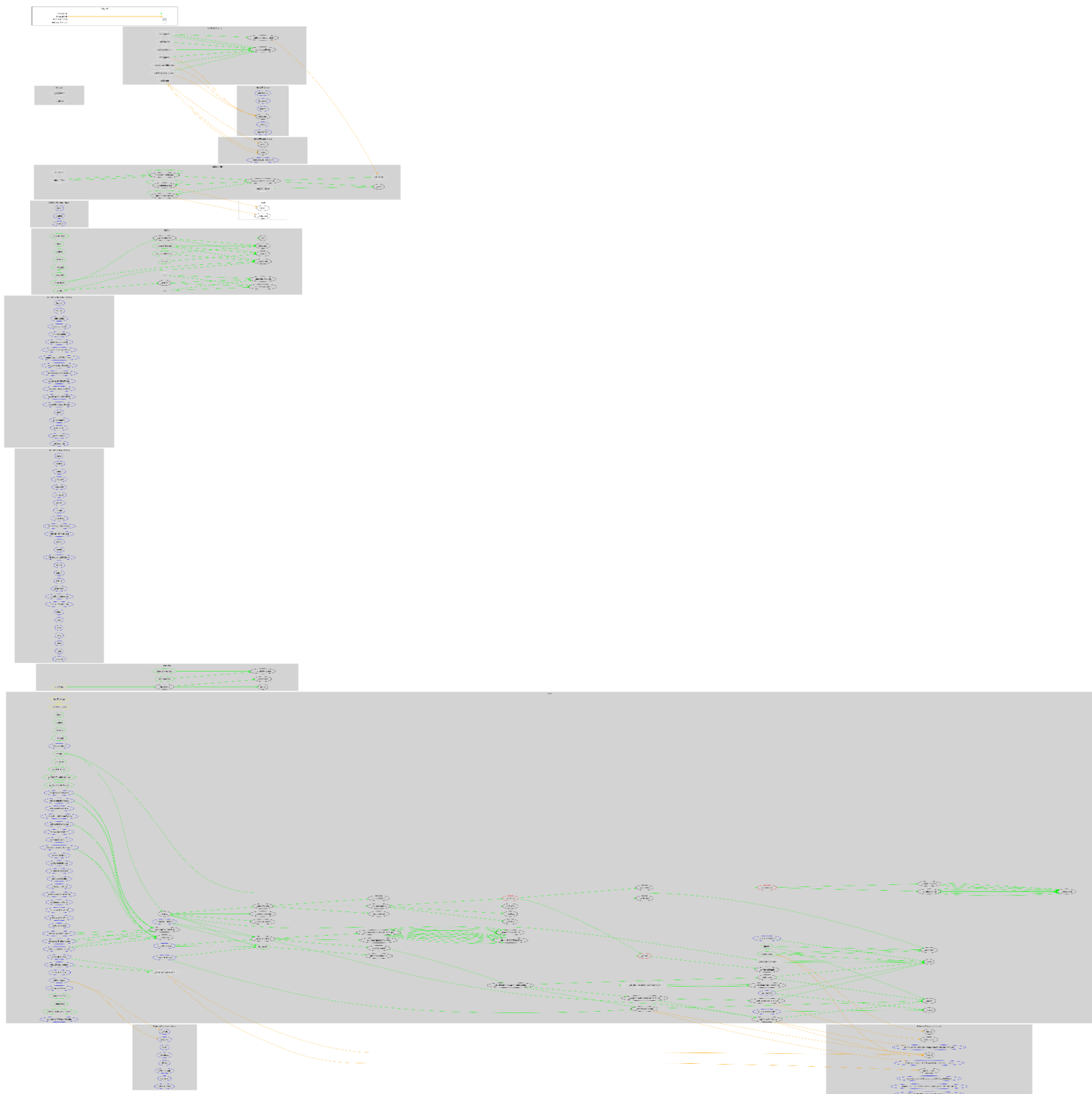
	_calculateLiquidityTokenFees	Private		
	_takeFees	Private	✓	
	_beforeTokenTransfer	Internal		
	_checkCanTransfer	Internal		
	_checkAntibotStatus	Internal		
	_transfer	Internal	✓	
	_tokenTransfer	Private	✓	
	_transferStandard	Private	✓	
	_reflectBot	Private	✓	
	_swapAndGetFees	Private	✓	lockTheSwap
	_swapAndLiquify	Private	✓	
	_checkRouterTokenAllowance	Internal		
	_checkRouterAllowanceAndGetToken	Internal		
	_checkPoolAndSwapAndAddLiquidity	Private	✓	
	_swapAndAddLiquidityToERC20Pool	Private	✓	
	_addLiquidityToERC20Pool	Private	✓	
	_calculateAvailableFeesAndTransfer	Private	✓	
	_transferFeesToWallet	Private	✓	
	_swapTokensForBnb	Private	✓	
	_addLiquidity	Private	✓	
	_swapTokensForTokens	Private	✓	
	manualBNBSwap	External	✓	onlyOwner
	manualERC20Swap	External	✓	onlyOwner lockTheSwap

	autoERC20Swap	External	✓	onlyOwner
	recoverBNB	External	✓	onlyOwner
	recoverBNBToWallet	External	✓	onlyOwner
	recoverERC20Tokens	External	✓	onlyOwner
	recoverERC20TokensToWallet	External	✓	onlyOwner

## Inheritance Graph



# Flow Graph



## Summary

ACG contract implements a token mechanism. This audit investigates security issues, business logic concerns, and potential improvements. ACG is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. 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 15% buy fees and 25% if the transferred amount is a specific threshold that is defined by the contract owner. Lastly, the contract has an antibot throttling mechanism that can prevent the transfers of up to 100 blocks.

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## About Cyberscope

Cyberscope is a blockchain cybersecurity company that was founded with the vision to make web3.0 a safer place for investors and developers. Since its launch, it has worked with thousands of projects and is estimated to have secured tens of millions of investors' funds.

Cyberscope is one of the leading smart contract audit firms in the crypto space and has built a high-profile network of clients and partners.



**The Cyberscope team**

<https://www.cyberscope.io>