



Cyberscope

Audit Report

Boost & Blast Cola

November 2023

SHA256 4df2a07366c81aa080d9f0fec3a92a40a06a222572f859f52dfef874dc0b07b2

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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

Diagnostics

● Critical ● Medium ● Minor / Informative

Severity	Code	Description	Status
●	MEM	Misleading Error Messages	Unresolved
●	L04	Conformance to Solidity Naming Conventions	Unresolved
●	L07	Missing Events Arithmetic	Unresolved
●	L13	Divide before Multiply Operation	Unresolved
●	L14	Uninitialized Variables in Local Scope	Unresolved
●	L20	Succeeded Transfer Check	Unresolved

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Review

Contract Name	BoostAndBlastCola
Testing Deploy	https://testnet.bscscan.com/address/0x8de982fe78087c45d3fa9b22b8e45ea2e3f00657
Symbol	BnBCola
Decimals	9
Total Supply	666,666,609,999,999

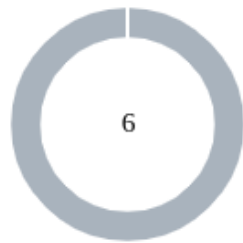
Audit Updates

Initial Audit	25 Nov 2023 https://github.com/cyberscope-io/audits/blob/main/boost-blast-cola/v1/audit.pdf
Corrected Phase 2	27 Nov 2023

Source Files

Filename	SHA256
contracts/BoostAndBlastCola.sol	d5d1f805c4287b65cc3179243af6a07480735f306a6b4730df98036333c2b099

Findings Breakdown



Critical	0
Medium	0
Minor / Informative	6

Severity	Unresolved	Acknowledged	Resolved	Other
Critical	0	0	0	0
Medium	0	0	0	0
Minor / Informative	6	0	0	0

MEM - Misleading Error Messages

Criticality	Minor / Informative
Location	contracts/BoostAndBlastCola.sol#L336,337,362,442,447
Status	Unresolved

Description

The contract is using misleading error messages. These error messages do not accurately reflect the problem, making it difficult to identify and fix the issue. As a result, the users will not be able to find the root cause of the error.

```
require(!tradingEnabled)
require(cInit != address(this) && aInit != address(this) &&
cInit != aInit)

require(account != address(this)
&& account != lpPair
&& account != DEAD)
require(gas < 750000)
require(allowedPresaleExclusion)
```

Recommendation

The team is suggested to provide a descriptive message to the errors. This message can be used to provide additional context about the error that occurred or to explain why the contract execution was halted. This can be useful for debugging and for providing more information to users that interact with the contract.

L04 - Conformance to Solidity Naming Conventions

Criticality	Minor / Informative
Location	contracts/BoostAndBlastCola.sol#L33,113,116,124,125,126,127,128,143,149,159,181,436
Status	Unresolved

Description

The Solidity style guide is a set of guidelines for writing clean and consistent Solidity code. Adhering to a style guide can help improve the readability and maintainability of the Solidity code, making it easier for others to understand and work with.

The followings are a few key points from the Solidity style guide:

1. Use camelCase for function and variable names, with the first letter in lowercase (e.g., myVariable, updateCounter).
2. Use PascalCase for contract, struct, and enum names, with the first letter in uppercase (e.g., MyContract, UserStruct, ErrorEnum).
3. Use uppercase for constant variables and enums (e.g., MAX_VALUE, ERROR_CODE).
4. Use indentation to improve readability and structure.
5. Use spaces between operators and after commas.
6. Use comments to explain the purpose and behavior of the code.
7. Keep lines short (around 120 characters) to improve readability.


```
function WETH() external pure returns (address);
mapping (address => uint256) _tOwned
mapping (address => mapping (address => uint256)) _allowances
uint256 constant private startingSupply = 666_666_609_999_999
string constant private _name = "Boost & Blast Cola"
string constant private _symbol = "BnBCola"
uint8 constant private _decimals = 9
uint256 constant private _tTotal = startingSupply * (10 **
_decimals)

Fees public _taxRates = Fees({
    buyFee: 800,
    sellFee: 800,
    transferFee: 0
})

...
```

Recommendation

By following the Solidity naming convention guidelines, the codebase increased the readability, maintainability, and makes it easier to work with.

Find more information on the Solidity documentation

<https://docs.soliditylang.org/en/v0.8.17/style-guide.html#naming-convention>.

L07 - Missing Events Arithmetic

Criticality	Minor / Informative
Location	contracts/BoostAndBlastCola.sol#L416,426,443
Status	Unresolved

Description

Events are a way to record and log information about changes or actions that occur within a contract. They are often used to notify external parties or clients about events that have occurred within the contract, such as the transfer of tokens or the completion of a task.

It's important to carefully design and implement the events in a contract, and to ensure that all required events are included. It's also a good idea to test the contract to ensure that all events are being properly triggered and logged.

```
swapThreshold = (_tTotal * thresholdPercent) / thresholdDivisor
piSwapPercent = priceImpactSwapPercent
cashierGas = gas
```

Recommendation

By including all required events in the contract and thoroughly testing the contract's functionality, the contract ensures that it performs as intended and does not have any missing events that could cause issues with its arithmetic.

L13 - Divide before Multiply Operation

Criticality	Minor / Informative
Location	contracts/BoostAndBlastCola.sol#L535,553
Status	Unresolved

Description

It is important to be aware of the order of operations when performing arithmetic calculations. This is especially important when working with large numbers, as the order of operations can affect the final result of the calculation. Performing divisions before multiplications may cause loss of precision.

```
uint256 toLiquify = ((contractTokenBalance * ratios.liquidity)
/ (ratios.total)) / 2
uint256 liquidityBalance = (amtBalance * toLiquify) / swapAmt
```

Recommendation

To avoid this issue, it is recommended to carefully consider the order of operations when performing arithmetic calculations in Solidity. It's generally a good idea to use parentheses to specify the order of operations. The basic rule is that the multiplications should be prior to the divisions.

L14 - Uninitialized Variables in Local Scope

Criticality	Minor / Informative
Location	contracts/BoostAndBlastCola.sol#L340,605
Status	Unresolved

Description

Using an uninitialized local variable can lead to unpredictable behavior and potentially cause errors in the contract. It's important to always initialize local variables with appropriate values before using them.

```
address constructorLP
address router
uint256 initSwapAmount
uint256 initThreshold
```

Recommendation

By initializing local variables before using them, the contract ensures that the functions behave as expected and avoid potential issues.

L20 - Succeeded Transfer Check

Criticality	Minor / Informative
Location	contracts/BoostAndBlastCola.sol#L698
Status	Unresolved

Description

According to the ERC20 specification, the transfer methods should be checked if the result is successful. Otherwise, the contract may wrongly assume that the transfer has been established.

```
TOKEN.transfer(_owner, TOKEN.balanceOf(address(this)))
```

Recommendation

The contract should check if the result of the transfer methods is successful. The team is advised to check the SafeERC20 library from the [Openzeppelin library](#).

Functions Analysis

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
IERC20	Interface			
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
IFactoryV2	Interface			
	getPair	External		-
	createPair	External	✓	-
IV2Pair	Interface			
	factory	External		-

	getReserves	External		-
	sync	External	✓	-
IRouter01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidityETH	External	Payable	-
	addLiquidity	External	✓	-
	swapExactETHForTokens	External	Payable	-
	getAmountsOut	External		-
	getAmountsIn	External		-
IRouter02	Interface	IRouter01		
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokens	External	✓	-
Initializer	Interface			
	setLaunch	External	✓	-
	getConfig	External	✓	-
	getInits	External	✓	-
	setLpPair	External	✓	-

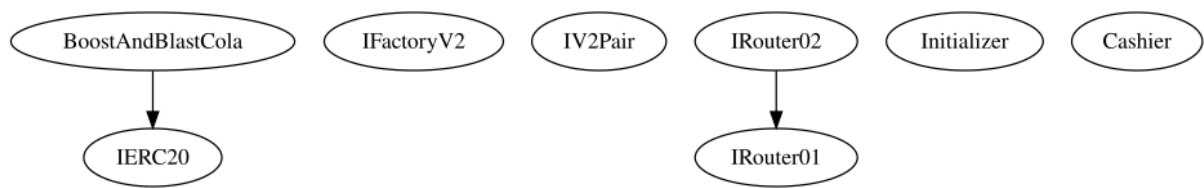
Cashier	Interface			
	setRewardsProperties	External	✓	-
	tally	External	✓	-
	load	External	Payable	-
	cashout	External	✓	-
	giveMeWelfarePlease	External	✓	-
	getTotalDistributed	External		-
	getUserInfo	External		-
	getUserRealizedRewards	External		-
	getPendingRewards	External		-
	initialize	External	✓	-
	getCurrentReward	External		-
BoostAndBlast Cola	Implementation	IERC20		
		Public	Payable	-
	transferOwner	External	✓	onlyOwner
	renounceOwnership	External	✓	onlyOwner
	renounceOriginalDeployer	External	✓	onlyOwner
		External	Payable	-
	totalSupply	External		-
	decimals	External		-
	symbol	External		-

	name	External		-
	getOwner	External		-
	balanceOf	Public		-
	allowance	External		-
	approve	External	✓	-
	_approve	Internal	✓	
	transfer	External	✓	-
	transferFrom	External	✓	-
	setNewRouter	External	✓	onlyOwner
	setLpPair	External	✓	onlyOwner
	setInitializers	Public	✓	onlyOwner
	isExcludedFromFees	External		-
	isExcludedFromDividends	External		-
	isExcludedFromProtection	External		-
	setDividendExcluded	Public	✓	onlyOwnerOrDeployer
	setExcludedFromFees	Public	✓	onlyOwnerOrDeployer
	setExcludedFromProtection	External	✓	onlyOwnerOrDeployer
	lockTaxes	External	✓	onlyOwnerOrDeployer
	setTaxes	External	✓	onlyOwnerOrDeployer
	setWallets	External	✓	onlyOwnerOrDeployer
	setRatios	External	✓	onlyOwnerOrDeployer
	getTokenAmountAtPriceImpact	External		-

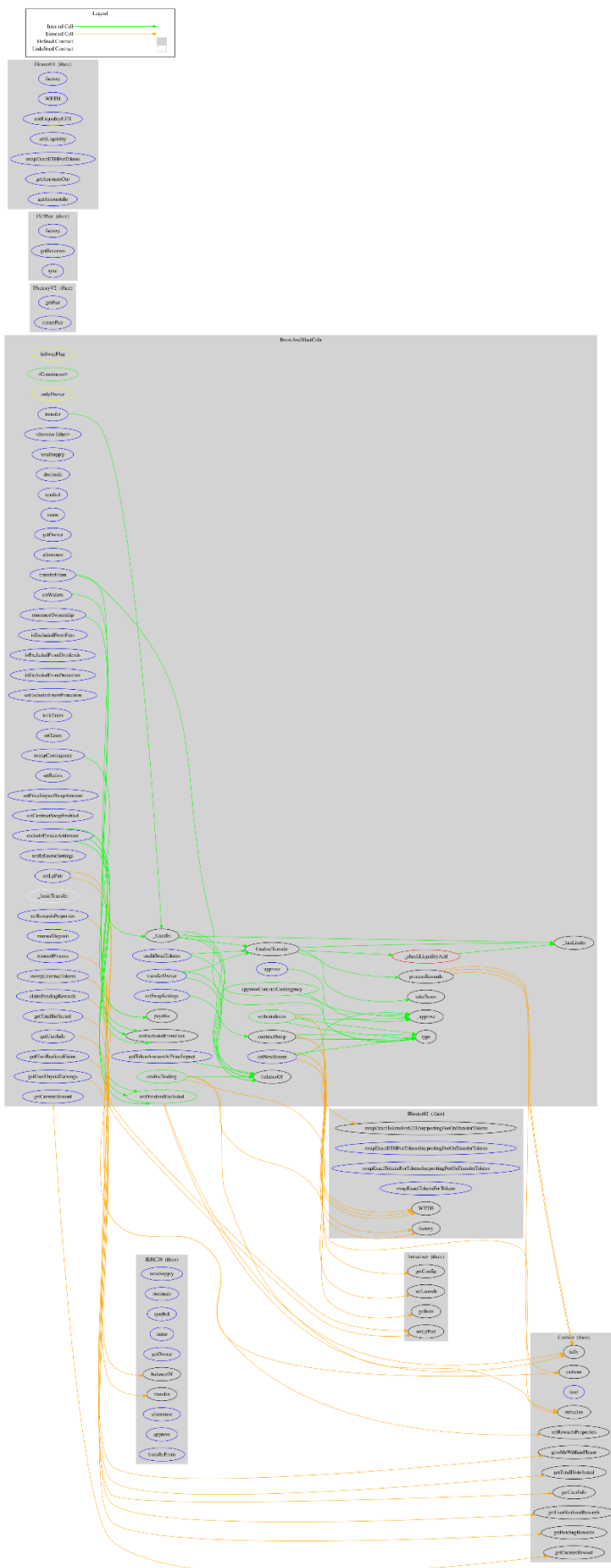
	setSwapSettings	External	✓	onlyOwnerOrDeployer
	setPriceImpactSwapAmount	External	✓	onlyOwnerOrDeployer
	setContractSwapEnabled	External	✓	onlyOwnerOrDeployer
	setRewardsProperties	External	✓	onlyOwnerOrDeployer
	setReflectorSettings	External	✓	onlyOwnerOrDeployer
	excludePresaleAddresses	External	✓	onlyOwnerOrDeployer
	_hasLimits	Internal		
	_transfer	Internal	✓	
	contractSwap	Internal	✓	inSwapFlag
	_checkLiquidityAdd	Private	✓	
	enableTrading	Public	✓	onlyOwner
	finalizeTransfer	Internal	✓	
	processRewards	Internal	✓	
	manualProcess	External	✓	-
	takeTaxes	Internal	✓	
	multiSendTokens	External	✓	onlyOwnerOrDeployer
	manualDeposit	External	✓	onlyOwnerOrDeployer
	sweepContingency	External	✓	onlyOwnerOrDeployer
	sweepExternalTokens	External	✓	onlyOwnerOrDeployer
	claimPendingRewards	External	✓	-
	getTotalReflected	External		-

	getUserInfo	External		-
	getUserRealizedGains	External		-
	getUserUnpaidEarnings	External		-
	getCurrentReward	External		-

Inheritance Graph



Flow Graph



Summary

Boost & Blast Cola contract implements a token mechanism. This audit investigates security issues, business logic concerns and potential improvements. Boost & Blast Cola 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 20% fees.

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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>