Cyberscope

Audit Report

Metaburst

September 2022

Type	BEP20
Network	BSC
Address	0xC3eFc6E1cFeCb4903570eD86142c7f9A8A760BF6
Audited by	© cyberscope

Table of Contents

Contract Review

Contract Name	Metaburst
Compiler Version	v0.8.17+commit.8df45f5f
Optimization	5000 runs
Licence	MIT
Explorer	https://bscscan.com/token/0xC3eFc6E1cFeCb4903570eD86142c7f9A8A760BF6
Symbol	MEBU
Decimals	18
Total Supply	100,000,000
Domain	https://metaburst.io

Source Files

Filename	**SHA256**
contract.sol	1d535f92e17baa5cdc2771fccd1c49ecc0893433caa08a82005af6f6d48d6a65

Audit Updates

Initial Audit	9th September 2022 https://github.com/cyberscope-io/audits/blob/main/mebu/v1/audit.pdf
Corrected Phase 1	21st September 2022 https://github.com/cyberscope-io/audits/blob/main/mebu/v2/audit.pdf
Corrected Phase 2	22nd September 2022

Contract Analysis

● Critical ● Medium ● Minor / Informative ● Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OCTD	Transfers Contract's Tokens	Passed
●	OTUT	Transfers User's Tokens	Passed
●	ELFM	Exceeds Fees Limit	Passed
●	ULTW	Transfers Liquidity to Team Wallet	Passed
●	MT	Mints Tokens	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses	Passed

Contract Diagnostics

Critical Medium Minor / Informative

Severity	Code	Description	Status
●	STC	Succeeded Transfer Check	Unresolved
●	L01	Public Function could be Declared External	Unresolved
●	L04	Conformance to Solidity Naming Conventions	Unresolved
●	L07	Missing Events Arithmetic	Unresolved
●	L12	Using Variables before Declaration	Unresolved
●	L14	Uninitialized Variables in Local Scope	Unresolved

STC - Succeeded Transfer Check

Criticality	minor / informative
Location	contract.sol#L523
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.

```
function contractSwap(uint256 contractTokenBalance) internal inSwapFlag {
        if (_allowances[address(this)][address(dexRouter)] != type(uint256).max) {
            _allowances[address(this)][address(dexRouter)] = type(uint256).max;
        }

        address[] memory path = new address[](2);
        path[0] = address(this);
        path[1] = dexRouter.WETH();

        try dexRouter.swapExactTokensForETHSupportingFeeOnTransferTokens(
            contractTokenBalance,
            0,
            path,
            address(this),
            block.timestamp
        ) {} catch {
            return;
        }

        bool success;
        (success,) = marketingWallet.call{value: address(this).balance, gas: 35000}("");
    }
```

Recommendation

The contract should check if the result of the transfer methods is successful.

L01 - Public Function could be Declared External

Criticality	minor / informative
Location	contract.sol#L536,271,352
Status	Unresolved

Description

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

```
enableTrading
transfer
getCirculatingSupply
```

Recommendation

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

L04 - Conformance to Solidity Naming Conventions

Criticality	minor / informative
Location	contract.sol#L116,33,117,360,114,133,152,136,135,115,118,126,132,134
Status	Unresolved

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.

```
_symbol
WETH
_decimals
_antiBlock
startingSupply
maxSellTaxes
_hasLiqBeenAdded
masterTaxDivisor
maxRoundtripTax
...
```

Recommendation

Follow the Solidity naming convention.
https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions.

L07 - Missing Events Arithmetic

Criticality	minor / informative
Location	contract.sol#L407,416
Status	Unresolved

Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes.

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

Recommendation

Emit an event for critical parameter changes.

L12 - Using Variables before Declaration

Criticality	minor / informative
Location	contract.sol#L565
Status	Unresolved

Description

The contract is using a variable before the declaration. This is usually happening either if it has not been declared yet or the variable has been declared in a different scope.

```
check
```

Recommendation

The variables should be declared before any usage of them.

L14 - Uninitialized Variables in Local Scope

Criticality	minor / informative
Location	contract.sol#L565,564
Status	Unresolved

Description

The are variables that are defined in the local scope and are not initialized.

```
check
checked
```

Recommendation

All the local scoped variables should be initialized.

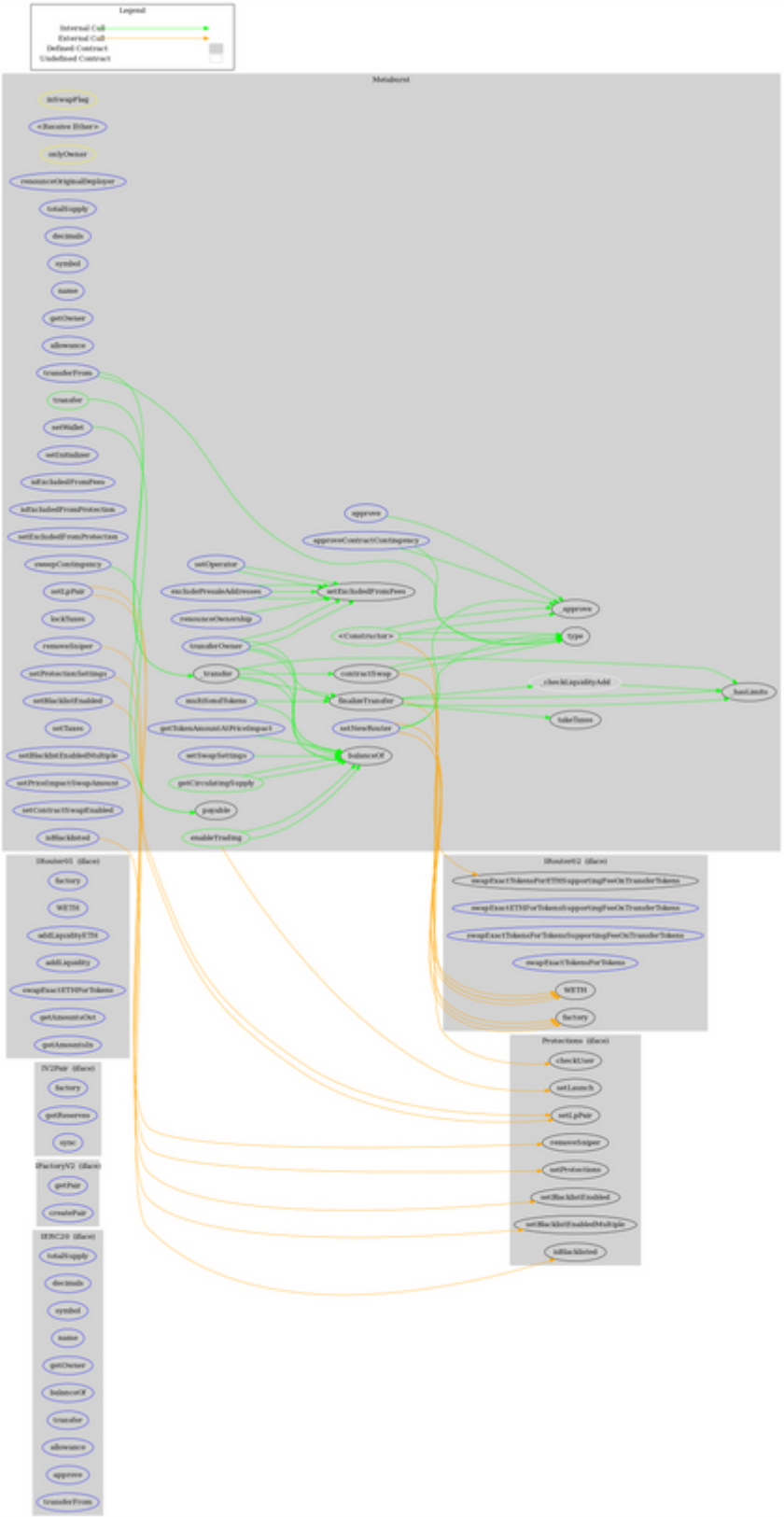
Contract Functions

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	✓	-
Protections	Interface			
	checkUser	External	✓	-
	setLaunch	External	✓	-
	setLpPair	External	✓	-
	setProtections	External	✓	-
	removeSniper	External	✓	-
	isBlacklisted	External		-
	setBlacklistEnabled	External	✓	-
	setBlacklistEnabledMultiple	External	✓	-
Metaburst	Implementation	IERC20		
	<Constructor>	Public	Payable	-
	<Receive Ether>	External	Payable	-
	transferOwner	External	✓	onlyOwner
	renounceOwnership	External	✓	onlyOwner
	setOperator	External	✓	-
	renounceOriginalDeployer	External	✓	-
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	allowance	External		-
	balanceOf	Public		-
	transfer	Public	✓	-

	approve	External	✓	-
	_approve	Internal	✓	
	approveContractContingency	External	✓	onlyOwner
	transferFrom	External	✓	-
	setNewRouter	External	✓	onlyOwner
	setLpPair	External	✓	onlyOwner
	setInitializer	External	✓	onlyOwner
	isExcludedFromFees	External		-
	isExcludedFromProtection	External		-
	setExcludedFromFees	Public	✓	onlyOwner
	setExcludedFromProtection	External	✓	onlyOwner
	getCirculatingSupply	Public		-
	removeSniper	External	✓	onlyOwner
	setProtectionSettings	External	✓	onlyOwner
	lockTaxes	External	✓	onlyOwner
	setBlacklistEnabled	External	✓	-
	setBlacklistEnabledMultiple	External	✓	-
	isBlacklisted	External		-
	setTaxes	External	✓	onlyOwner
	getTokenAmountAtPriceImpact	External		-
	setWallet	External	✓	onlyOwner
	setSwapSettings	External	✓	onlyOwner
	setPriceImpactSwapAmount	External	✓	onlyOwner
	setContractSwapEnabled	External	✓	onlyOwner
	excludePresaleAddresses	External	✓	onlyOwner
	_hasLimits	Internal		
	_transfer	Internal	✓	
	contractSwap	Internal	✓	inSwapFlag
	_checkLiquidityAdd	Internal	✓	
	enableTrading	Public	✓	onlyOwner
	sweepContingency	External	✓	onlyOwner
	multiSendTokens	External	✓	onlyOwner
	finalizeTransfer	Internal	✓	
	takeTaxes	Internal	✓	

Contract Flow



Domain Info

Domain Name	metaburst.io
Registry Domain ID	ed752fba07a84638ab935a2a219c69ba-DONUTS
Creation Date	2021-12-15T08:23:13Z
Updated Date	2022-08-01T09:03:35Z
Registry Expiry Date	2022-12-15T08:23:13Z
Registrar WHOIS Server	whois.namecheap.com
Registrar URL	https://www.namecheap.com/
Registrar	NameCheap, Inc.
Registrar IANA ID	1068

The domain was created 9 months before the creation of the audit. It will expire in 3 months.

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

Summary

Metaburst Token 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% fees.

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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