RugFreeCoins Audit

YoCoin Token Audit

Smart Contract Security Audit

August 23, 2021

Contents

Audit details

Audited project

YoCoin Token

Contract Address

0xdd17629d05e068a9d118ee35d11101d4140d0586

Client contact

YoCoin Token Team

Blockchain

Binance smart chain

Project website

https://yoco.finance/

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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Background

Rugfreecoins was commissioned by YoCoin to perform an audit of the smart contract.

https://bscscan.com/token/0xdd17629d05e068a9d118ee35d11101d4140d0586

The focus of this audit is to verify that the smart contract is secure, resilient and working according to the specifications.

The information in this report should be used to understand the risk exposure of the smart contract, project feasibility, long term sustainability and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

About the project

YoCoin is a token built on the Binance Smart Chain. Each transaction incurs a 3% fee. It is a 100% community-driven and fair launched cryptocurrency. An ultra-fast global payments system. And features protocol static rewards with dynamic Defi liquidity. YOCO is a long-term investment opportunity developed to generate its interest from low trading fees.

Features

- ❖ Investors can accumulate more YOCO tokens by just holding as the smart contract automatically distributes 1% of every transaction tax amongst holders.

- ❖ YOCO has the burn strategy that benefits and rewards those who invest long-term. This feature slowly reduces supply making each YOCO more and more valuable.

- ❖ 1% is sent to a wallet for YOCO development and marketing. Having the resources necessary to deliver a meticulously marketed project, such as professional branding, paid influencers, and merchandise gives YOCO the ability for substantial growth.

Tokenomics

- ❖ 1% of trade goes to holders pockets.
- ❖ 1% of trade goes to the burn wallet.
- ❖ 1% of trade goes to development and marketing.

Roadmap

Phase 1

- ❖ Smart contract development.
- ❖ Testing.
- ❖ Fair launch on the Binance Smart Chain.
- ❖ Grassroots community development.
- ❖ First wave of marketing across all major social medias.
- ❖ Airdrops to active community members to engage new investors and set up for the SSC.

Phase 2

- ❖ Submit to sites for listing.
- ❖ Second wave of marketing including hiring of social media influencers.
- ❖ Online merchandise shop that utilizes a YOCO payment system.
- ❖ Directory of affiliates that accept YOCO.
- ❖ P2P Marketplace.

Phase 3

- ❖ Major exchange listings.
- ❖ Lobby major payments systems and websites to accept YOCO.
- ❖ YOCO Dapp/Wallet YOSWAP development.
- ❖ Integration of payments system in website.
- ❖ Community voting on the future direction of YOCO including burns, advertising ventures, and case uses.

Phase 4

- ❖ Partnership with Visa and Mastercard.
- ❖ Collateralized cash loans against your crypto holdings.
- ❖ Savings, retirement, and inheritance systems.
- ❖ Global payments adoption.

Team

ERIC DUST

Founder & Developer

Eric is A+ and MSCE certified, specializing in computer hardware and software. He writes code in solidity php html MySQL c++ and python. He has successfully created 2 technology businesses over the last 20 years and in 2016 found his niche in stocks and crypto currencies, investing as well as mining Ethereum and Monero. Eric is the inspiration to YoCoin.

ROB HURST

Network Analyst

Rob's investment background is rooted in early EVM (Ethereum Virtual Machine) DeFi. He followed the development of the BSC prior to its mainnet release and began participating in the new ecosystem immediately. His background in dapp navigation, DeFi wallets, and decentralized exchanges helped in launching the token safely. He continues to monitor the network for exploits but also opportunities for exposure and growth.

JOSH BRANDLEN

Business developer, and data science.

Trilingual business owner and entry-level expert with over 10 years' experience in first-level management and problem solving. Focusing on complementing studies in Applied Humanities with an emphasis in Business Administration leading to a bachelor's degree in December 2022.

DANEL ALLEN

Business Assistant & Social Media Manager

5 years building business through social media, with a personal part time business and annual revenue of 150k. Public Relations and YoCoin Executive Admin.

JESSE WILLIAMS

Coordinator & Business Development

14 years in business consulting and entrepreneurship and 10 years in financial consulting and Tax Preparation. Lastly, 7 years in start up technology development and web based platform entrepreneurship.

BILL BROCK

Technical Analyst

Multipreneur and Investor, providing target and technical solutions together with the YoCoin (YOCO) team.

JONATHAN DICKS

Graphic Design & Web Development

24 years experience as web and graphic designer/developer, specializing in digital art and large e-commerce solutions with commercial focus. Jonathan is lead designer and developer for YoCoin marketing strategies.

KENNETH RAMMER

NFT Director

NFT specialist, with decades of technical science. Coming from the field of rocket science. Ken works in app development and coin use.

DENA BROCK

YoStore, Public Relations, Advertising & Executive Admin

YoCoin Executive Finance Director. marketing strategist. Dena has 30 years in marketing, advertising, communications and public relations.

JULIAN LYNN

Marketing & Merchandise

Founder of Exposure X Media, a firm that delivers digital content and marketing services to a diverse range of clients. Experienced e-commerce store builder and dropshipping. Previous experience in logistics as well as sales management.

WILLIAM MAGEE

Social Media, Instagram & YouTube

Social media marketing development. Level 1 art and graphics coordinator.

CHARLA JO ANNE BARRON

Graphic Designer & Marketplace

Crypto Shark, with a unique perspective that allows her to think outside the tank. Lifetime entrepreneur and business developer. Owner of Laravel Design. Masters in business and marketing, minor/major being law, medical, and human psychology. First degree black belt, writer, photographer, dreamer, doer, and coin developer.

IAN CHAN

Foreign Communications Expert

Multiple business owner, and developer. Real Estate Investor and Lead investor in YoCoin projects.

MONTGUMERY JONEZ

Meme Master

Graphic arts, Twitch and YouTube sensationalist

Target market and the concept

Target market

- ❖ Anyone who's interested in Crypto space with long term investment plans.
- ❖ Anyone who's ready to earn a passive income by holding tokens.
- ❖ Anyone who's interested in trading tokens.
- ❖ Anyone who's interested in taking part with the future plans of the project.
- ❖ Anyone who's interested in making financial transactions with any other party using YOCO as the currency.

Core concept

The reward system

1% of each transaction when buying and selling gets sent amongst all holders in tokens. The holders will be eligible to receive tokens, whenever a transaction occurs, and rewards are proportional to how many tokens each individual holds.

Sustainable mechanism

The fee of 1% development is what allows YOCO to promote the token and use funds to further development of the platform.

YOCO has the burn strategy that benefits and rewards those who invest long-term. This feature slowly reduces supply making YOCO price more and more valuable.

Community created platform
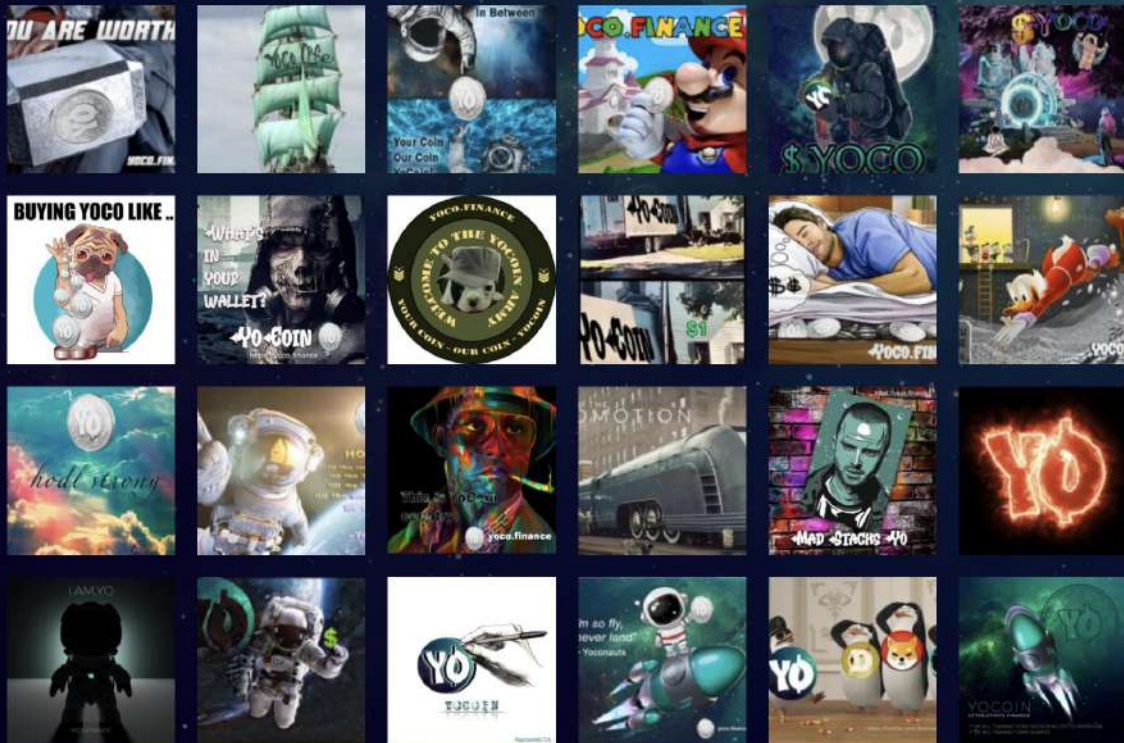
YoCoin also has exclusive NFT artwork which can be collected, traded or just held.

https://app.airnfts.com/creators/YOCOIN_YOCO

YoCoin store
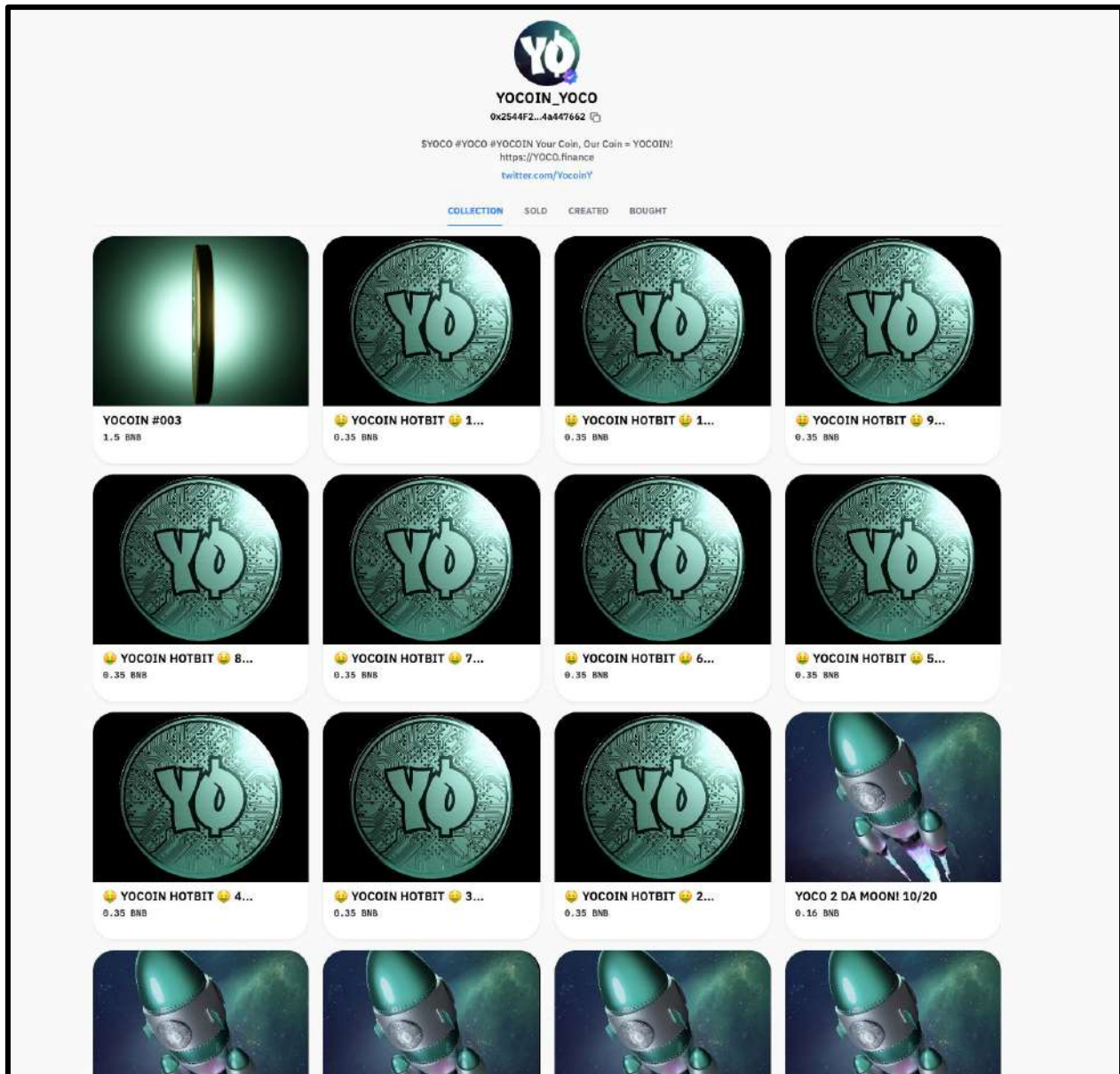
https://store.yoco.finance/
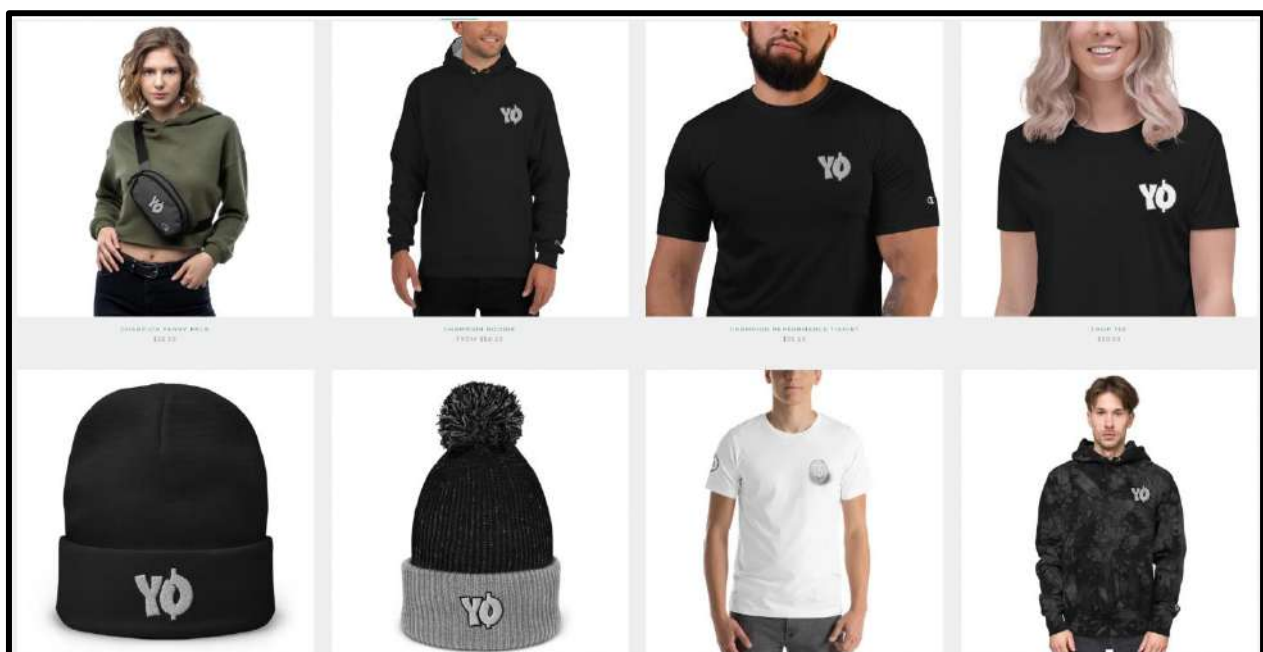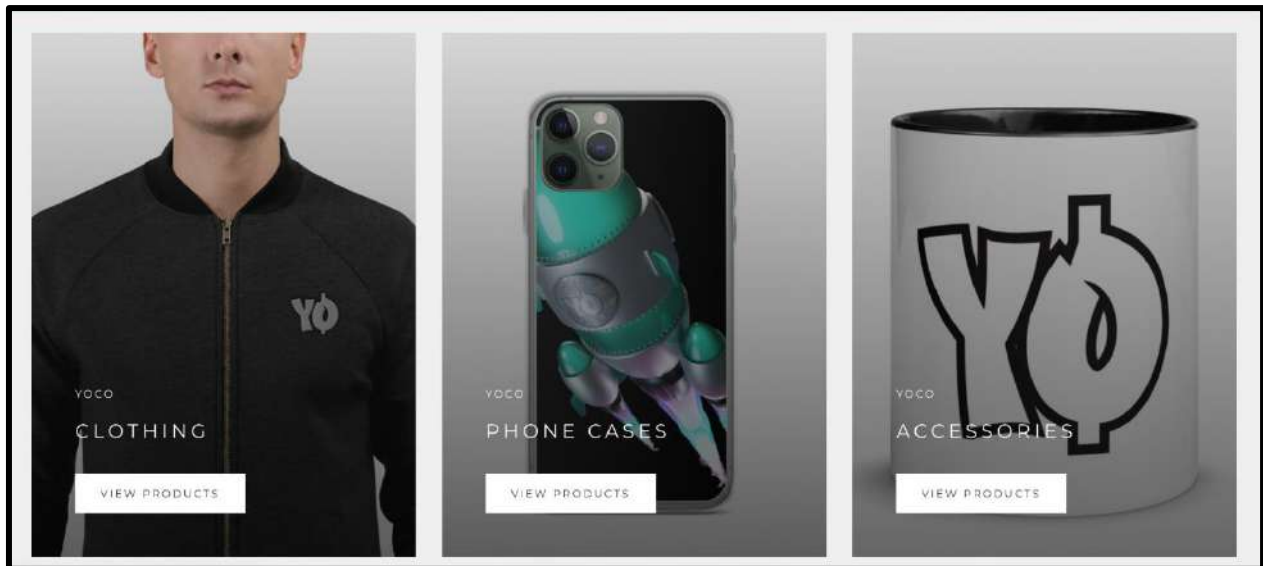
Crypto coaching

Crypto coaching sessions are conducted by Eric Dust and Rob Hurst to educate the crypto community in regards to the Questions on block chain? Where to invest? How much to start with? What apps to use? What is staking? And so many more!

ERIC DUST

Eric is A+ and MSCE certified, specializing in computer hardware and software. Coding, and even to having created a currency for our community! Eric's love of Crypto, Mining and the Stock Exchange all began 6 years ago, and became a full time, near obsession.

The love and talent he had for this trading/tech world has been no surprise considering his childhood, and years past. At the age of 12 Eric inherited an old computer from his grandmother and was coding, among other things, by the age of 14. It was all fun and games until he decided to get serious and in 2005 began his first company, BitTraffic. He sold in 2011 and then began DataGuys to present time.

He began mining on the Ethereum block chain in 2016, and in 2021, coded his own crypto currency.

ROB HURST

Rob's investment background is rooted in early EVM (Ethereum Virtual Machine) DeFi.

He followed the development of the BSC prior to its mainnet release and began participating in the new ecosystem immediately.

His background in dapp navigation, DeFi wallets, and decentralized exchanges helped in launching the token safely.

He continues to monitor the network for exploits but also opportunities for exposure and growth.

Future plans

- ❖ P2P Marketplace.
- ❖ Major exchange listings.
- ❖ Lobby major payments systems and websites to accept YOCO.
- ❖ YOCO Dapp/Wallet YOSWAP development.
- ❖ Integration of payments system in website.
- ❖ Community voting on the future direction of YOCO including burns, advertising ventures, and case uses.
- ❖ Partnership with Visa and Mastercard.
- ❖ Collateralized cash loans against your crypto holdings.
- ❖ Savings, retirement, and inheritance systems.
- ❖ Global payments adoption.

Potential to grow with score points

1.	Project efficiency	10/10
2.	Project uniqueness	9/10
3	Information quality	10/10
4	Service quality	10/10
5	System quality	9/10
6	Impact on the community	10/10
7	Impact on the business	10/10
8	Preparing for the future	10/10
Total Points		**9.75/10**

Contract details

Token contract details for 23rd August 2021

Contract name	YoCoin
Contract address	0xdd17629d05e068a9d118ee35d11101d4140d0586
Token supply	96,468,665.880302
Token ticker	YOCO
Decimals	9
Token holders	4,999
Transaction count	42,442
Top 100% holders dominance	98.27%
Contract deployer address	0x4352d296D0B8Ed801c4F327B73e302519755789A
Contract's current owner address	0x7d3596f49f435f76ecd4964a7281ba9d8de5fd69

Top token holders

Top 10 Token Holders

| Rank	Address	Quantity (Token)	Percentage
1	0xd78be46d03d2c0238b9ee6e6ddb0448febfda7a8	9,102,977.136402842	9.4362%
2	0x91cfa411d7d8c1d6c92e42f2ca837301322271c9	9,063,299.26991639	9.3951%
3	0x7d3596f49f435f76ecd4964a7281ba9d8de5fd69	8,613,297.649977274	8.9286%
4	0x139fdf29a032a50e12d8c0bfd0cb36add845e340	7,993,706.29095913	8.2863%
5	0xab27568bd3eb5bb5cf2daedc0aba5d3fa113f8f9	7,934,885.411788319	8.2254%
6	0x6e768e1f8f3673677d252b5d2fa79b1a360dd977	7,453,598.724906448	7.7264%
7	0xfe3ffdedc4bfa5fd14fef49eff9e34b2ef0a08c8	6,745,287.278280827	6.9922%
8	0x95ace22068c91b21269093f77d7e4143e81dd175	6,097,459.344454917	6.3207%
9	PancakeSwap V2: YOCO 2	4,399,276.502463452	4.5603%
10	0x62e95263e4abb6d9469e04e604962e4a896037fa	3,726,105.725061069	3.8625%

Token distribution

Top 100 Token Holders
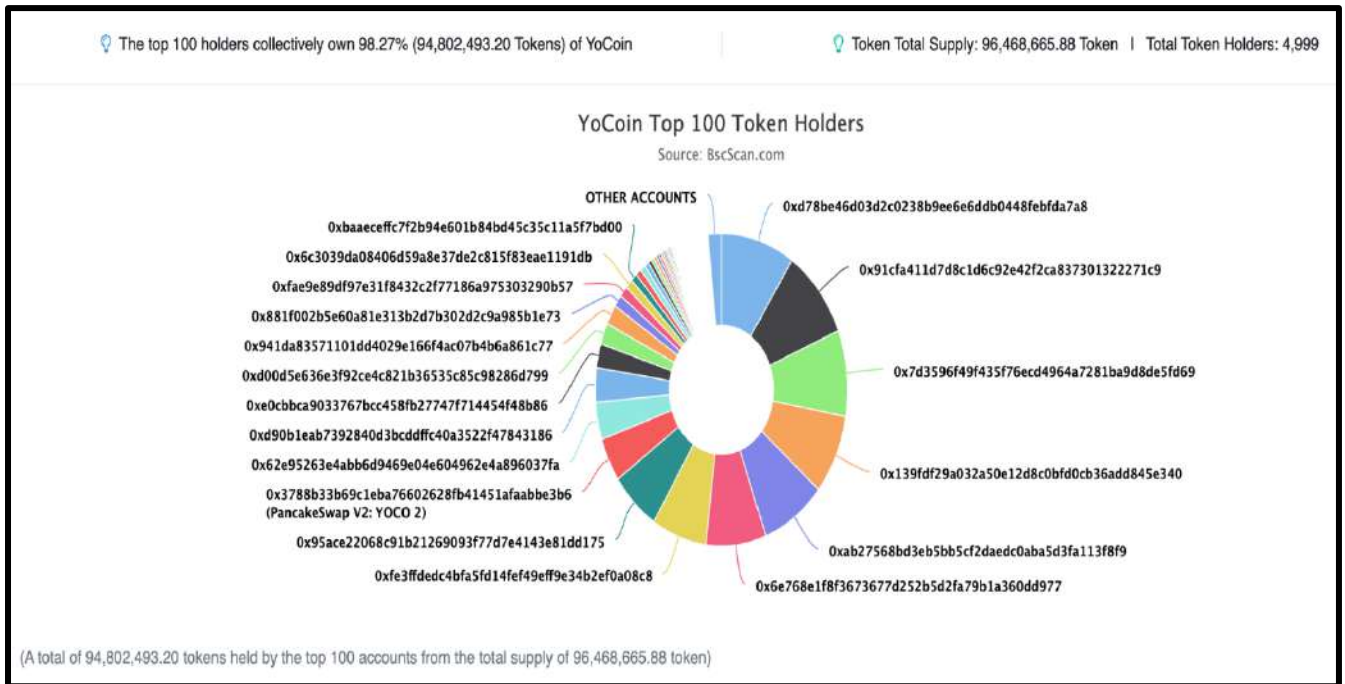
Contract interaction details
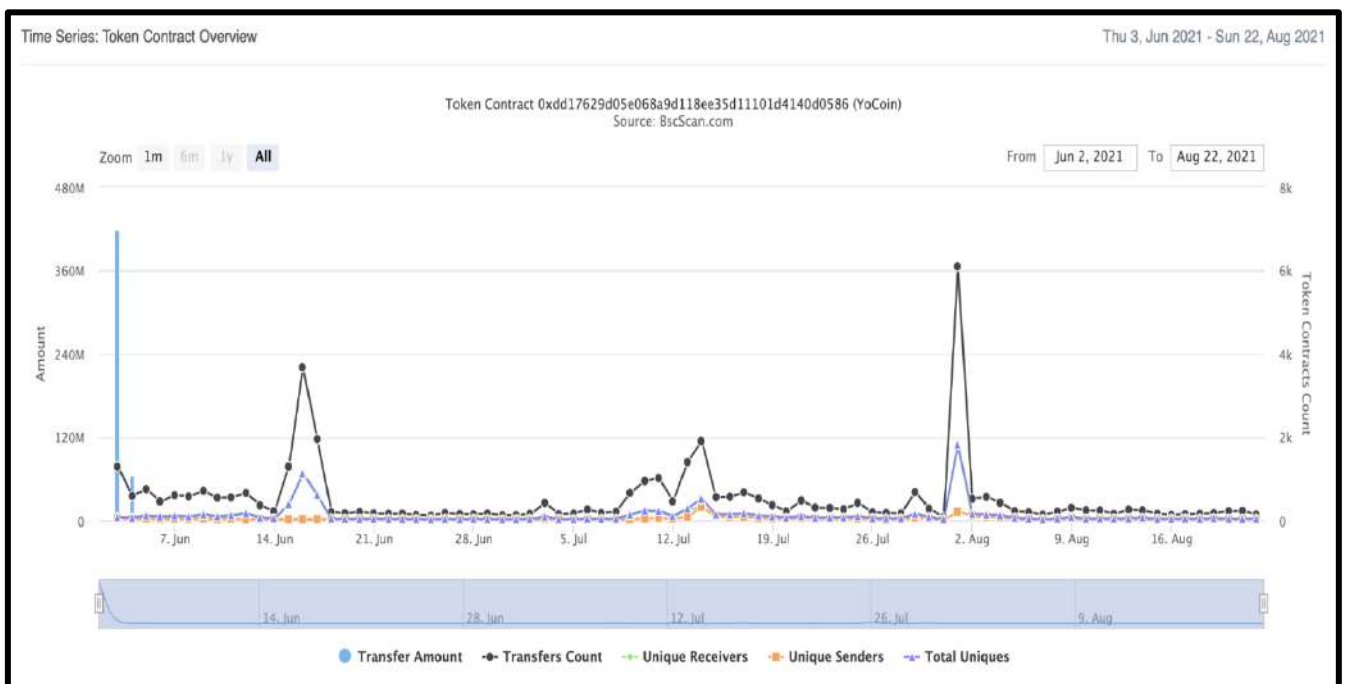
Contract code function details

No	Category	Item	Result
1	Coding conventions	BRC20 Token standards	pass
		compile errors	pass
		Compiler version security	pass
		visibility specifiers	pass
		Gas consumption	low issue
		SafeMath features	pass
		Fallback usage	pass
		tx.origin usage	pass
		deprecated items	pass
		Redundant code	pass
		Overriding variables	pass
2	Function call audit	Authorization of function call	pass
		Low level function (call/delegate call) security	pass
		Returned value security	pass
		Selfdestruct function security	pass
3	Business security	Access control of owners	pass
		Business logics	pass
		Business implementations	low issue
4	Integer overflow/underflow		pass
5	Reentrancy		pass
6	Exceptional reachable state		pass
7	Transaction ordering dependence		pass
8	Block properties dependence		pass
9	Pseudo random number generator (PRNG)		pass
10	DoS (Denial of Service)		pass
11	Token vesting implementation		pass
12	Fake deposit		pass
13	Event security		pass

Contract description table

Below table represents the summary of the contracts and methods in the token contract. We scanned the whole contract and listed down all the Interfaces, functions and implementations with its visibility and mutability.

Contract	Type	Bases		
L	Function Name	Visibility	Mutability	Modifiers
Context	**Implementation**			
L	_msgSender	Internal 🔒		
L	_msgData	Internal 🔒		
IBEP20	**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⬚
SafeMath	**Library**			
L	add	Internal 🔒		
L	sub	Internal 🔒		
L	sub	Internal 🔒		
L	mul	Internal 🔒		
L	div	Internal 🔒		
L	div	Internal 🔒		
L	mod	Internal 🔒		
L	mod	Internal 🔒		

Address	Library			
L	isContract	Internal 🔒		
L	sendValue	Internal 🔒	⬤	
L	functionCall	Internal 🔒	⬤	
L	functionCall	Internal 🔒	⬤	
L	functionCallWithValue	Internal 🔒	⬤	
L	functionCallWithValue	Internal 🔒	⬤	
L	_functionCallWithValue	Private 🗝	⬤	
Ownable	**Implementation**	**Context**		
L	owner	Public 🗒		NO🗒
L	renounceOwnership	Public 🗒	⬤	onlyOwner
L	transferOwnership	Public 🗒	⬤	onlyOwner
CoinToken	**Implementation**	**Context, IBEP20, Ownable**		
L		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🗒

└	decreaseAllowance	Public ▯	⬤	NO▯
└	isExcluded	Public ▯		NO▯
└	totalFees	Public ▯		NO▯
└	totalBurn	Public ▯		NO▯
└	totalCharity	Public ▯		NO▯
└	deliver	Public ▯	⬤	NO▯
└	reflectionFromToken	Public ▯		NO▯
└	tokenFromReflection	Public ▯		NO▯
└	excludeAccount	External ▯	⬤	onlyOwner
└	includeAccount	External ▯	⬤	onlyOwner
└	setAsCharityAccount	External ▯	⬤	onlyOwner
└	updateFee	Public ▯	⬤	onlyOwner
└	_approve	Private 🔑	⬤	
└	_transfer	Private 🔑	⬤	
└	_transferStandard	Private 🔑	⬤	
└	_standardTransferContent	Private 🔑	⬤	
└	_transferToExcluded	Private 🔑	⬤	
└	_excludedFromTransferContent	Private 🔑	⬤	
└	_transferFromExcluded	Private 🔑	⬤	
└	_excludedToTransferContent	Private 🔑	⬤	
└	_transferBothExcluded	Private 🔑	⬤	
└	_bothTransferContent	Private 🔑	⬤	
└	_reflectFee	Private 🔑	⬤	
└	_getValues	Private 🔑		
└	_getTBasics	Private 🔑		
└	getTTransferAmount	Private 🔑		
└	_getRBasics	Private 🔑		
└	_getRTransferAmount	Private 🔑		

L	_getRate	Private 🔑		
L	_getCurrentSupply	Private 🔑		
L	_sendToCharity	Private 🔑	⬤	
L	removeAllFee	Private 🔑	⬤	
L	restoreAllFee	Private 🔑	⬤	
L	_getTaxFee	Private 🔑		

Legend

Symbol	Meaning
⬤	**Function can modify state**
🔳	**Function is payable**

Inheritance Hierarchy
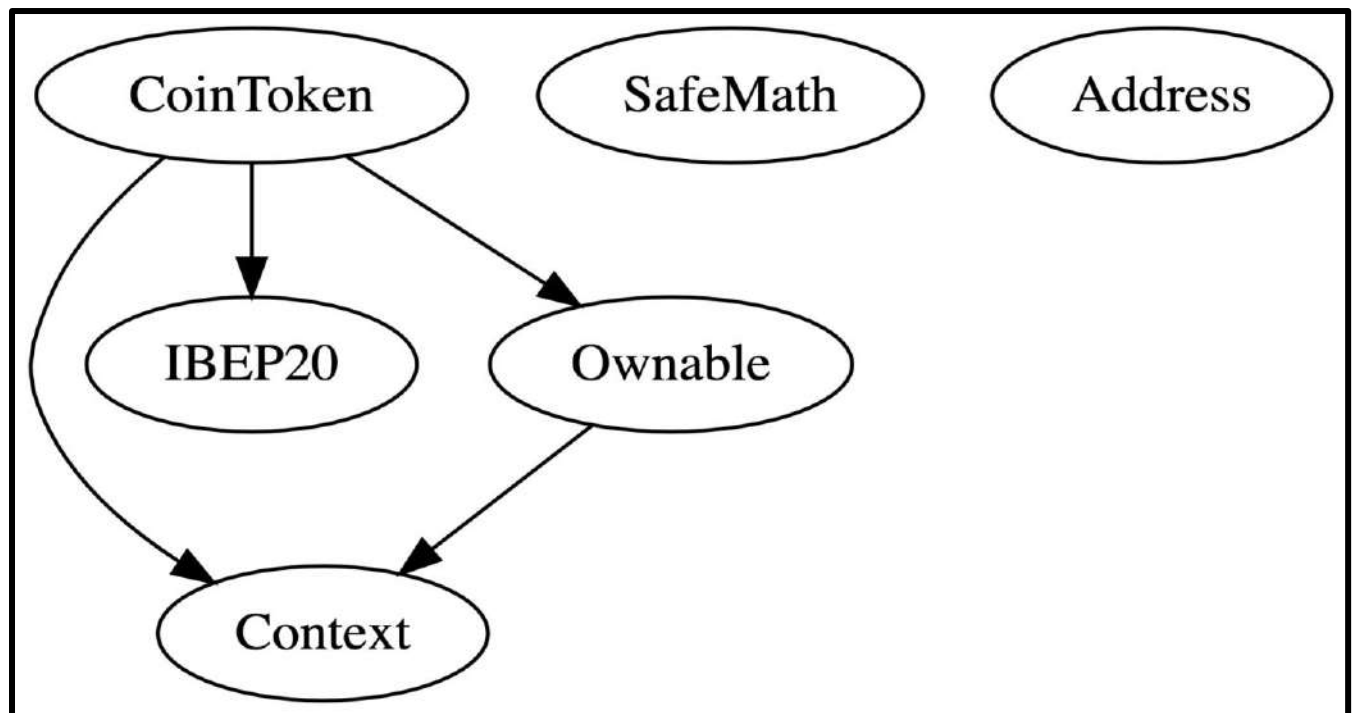
Security issue checking status

❖ **High severity issues**

- **No high severity issues found.**

❖ **Medium severity issues**

- **No medium severity issues found.**

❖ **Low severity issues**

- **Out of gas**

▪ The function includeInReward() uses the loop to find and remove addresses from the _excluded list. Function will be aborted with OUT_OF_GAS exception if there will be a long excluded addresses list.

```
ftrace | funcSig
function includeAccount(address account↑) external onlyOwner {
    require(_isExcluded[account↑], "Account is already included");
    for (uint256 i = 0; i < _excluded.length; i++) {
        if (_excluded[i] == account↑) {
            _excluded[i] = _excluded[_excluded.length - 1];
            _tOwned[account↑] = 0;
            _isExcluded[account↑] = false;
            _excluded.pop();
            break;
        }
    }
}
```

- The function _getCurrentSupply also uses the loop for evaluating total supply. It also could be aborted with OUT_OF_GAS exception if there will be a long excluded addresses list.

```
ftrace | funcSig
function _getCurrentSupply() private view returns (uint256, uint256) {
    uint256 rSupply = _rTotal;
    uint256 tSupply = _tTotal;
    for (uint256 i = 0; i < _excluded.length; i++) {
        if (
            _rOwned[_excluded[i]] > rSupply ||
            _tOwned[_excluded[i]] > tSupply
        ) return (_rTotal, _tTotal);
        rSupply = rSupply.sub(_rOwned[_excluded[i]]);
        tSupply = tSupply.sub(_tOwned[_excluded[i]]);
    }
    if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
    return (rSupply, tSupply);
}
```

Recommendation
Check that the excluded array length is not too big.

- **Development wallet is not publicly visible in the contract.**

- **Misleading variable**

Using the variable name as charity for the development wallet, it should be renamed as development wallet or a similar one.

```
_TAX_FEE = _txFee * 100;
BURN_FEE = _burnFee * 100;
CHARITY_FEE = _charityFee * 100;
ORIG_TAX_FEE = _TAX_FEE;
ORIG_BURN_FEE = BURN_FEE;
ORIG_CHARITY_FEE = CHARITY_FEE;
```

```
ftrace | funcSig
function _sendToCharity(uint256 tCharity, address sender) private {
    uint256 currentRate = _getRate();
    uint256 rCharity = tCharity.mul(currentRate);
    _rOwned[FeeAddress] = _rOwned[FeeAddress].add(rCharity);
    _tOwned[FeeAddress] = _tOwned[FeeAddress].add(tCharity);
    emit Transfer(sender, FeeAddress, tCharity);
}
```

Owner privileges

❖ Owner can renounce and transfer the ownership.

```
ftrace | funcSig
function renounceOwnership() public virtual onlyOwner {
    emit OwnershipTransferred(_owner, address(0));
    _owner = address(0);
}


/**
 * @dev Transfers ownership of the contract to a new account (`newOwner`).
 * Can only be called by the current owner.
 */
ftrace | funcSig
function transferOwnership(address newOwner↑) public virtual onlyOwner {
    require(
        newOwner↑ != address(0),
        "Ownable: new owner is the zero address"
    );
    emit OwnershipTransferred(_owner, newOwner↑);
    _owner = newOwner↑;
}
```

Audit conclusion

While conducting the audit of the YoCoin Token smart contract, it was observed that there is nothing alarming with the code and it only contains low severity issues.