

RugFreeCoins Audit



ETH Fan Eco System

Smart Contract Security Audit

February 05, 2022

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Audit details



Audited project

ETH Fan Eco System Token



Contract Address

0xb72962568345253f71a18318d67e13a282b187e6



Client contact

ETH Fan Eco System Token Team



Blockchain

Binance smart chain



Project website

https://ethfan.club/

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 ETH Fan Eco System Token to perform an audit of the smart contract.

https://bscscan.com/address/0xb72962568345253f71a18318d67e13a282b187e6

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

ETH Fan Ecosystem token is a token built on the Binance Smart Chain that is with an innovative investment use case the main purpose of which is to seek out constant revenue sources, and heading towards building even greater Community, DAO Governed ecosystem, a Multi Chain NFT marketplace, staking platform and an eventual future Game + metaverse. Each transaction, purchase incurs 10% fee, and sale incurs a 14% fee.

Features

- ❖ The ETH Fan Eco System Token rewards will be distributed in ETH among every holder proportional to how many tokens each individual holds in values of 4% when buying and 5% when selling.
- ❖ The sustainability fee of 2% when buying and 3% when selling for dev and 3% when buying and selling for marketing is what allows ETH Fan Eco System Token to hold the aforementioned promise. Tokens will be swapped into BNB and will be sent to a marketing wallet per transaction. This way, ETH Fan Eco System Token will have enough funds to promote the coin and spend for future development without selling tokens as the traditional way.
- ❖ The additional component included under the sustainability section is a liquidity fee of 1% when buying and 3% when selling, which is a redistribution mechanism that ensures the trading pool always has sufficient liquidity.

Tokenomics

10% fee when buying

- ❖ 4% of trade goes to holders' pockets in ETH.
- 2% of trade goes to the development wallet.
- ❖ 3% of trade goes to the marketing wallet.
- 1% of trade goes to the liquidity pool.

14% fee when selling

- ❖ 5% of trade goes to holders' pockets in ETH.
- ❖ 3% of trade goes to the development wallet.
- 3% of trade goes to the marketing wallet.
- ❖ 3% of trade goes to the liquidity pool.

Roadmap

Q4 2021 Conception & Launch

- Smart Contract Development and Deployment on BEP20
- Smart Contract Audit completion along with KYC
- · Website and Social Media Unveiling
- · Telegram Community Building
- · Private and Presale
- PCS Launch
- · CMC & CGK Listing

Q1 2022 Enchacement

- Growing Telegram Community
- · Influencers Marketing
- Launch of some Play 2 Earn mini-games
- Partnerships with other projects
- CEX Listings
- Conceptualization of Own dApp and Crypto Wallet
- Planning for Deployment of Token on ERC20
- · Launch of Staking App and Dashboard
- Onboarding of Crypto Portfolio Managers for investment of Community Fund

Q2 2022 Utilities Launch

- Development and Testing of Own dApp and Crypto Wallet
- Launch of EFT on ERC20
- Major Marketing
- Addition of Arcade mini-games
- ETH Fan Exclusive NFT Marketplace

Target market and the concept

Target market

- ❖ Anyone who's interested in the 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 collecting NFTs or trading NFTs.
- ❖ Anyone who's interested in taking part with staking.
- ❖ Anyone who's interested in taking part of decision making.
- ❖ Anyone who's interested in taking part with the future plans of the ETH Fan Token Ecosystem.
- ❖ Anyone who's interested in making financial transactions with any other party using ETH Fan Eco System Token as the currency.

Core concept

The ETH Fan Eco System Token reward system

4% of each transaction when buying and 5% when selling gets converted to ETH, and is split amongst all holders. Holders will be eligible to receive tokens in each transaction and rewards are proportional to how many tokens each individual holds.

Sustainable mechanism

The sustainability fee of 2% when buying and 3% when selling for dev and 3% when buying and selling for marketing is what allows ETH Fan Eco System Token to promote the token and use funds to further the development of the platform. Tokens will be swapped into BNB and will be sent to a marketing wallet and dev wallet. This way, ETH Fan Eco System Token will have access to the funds without selling tokens as the traditional way, which will enable them to consume funds without hurting the project.

The liquidity fee of 1% when buying and 3% when selling, which is a redistribution mechanism that ensures the trading pool always has sufficient liquidity.

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	10/10
6	Impact on the community	10/10
7	Impact on the business	10/10
8	8 Preparing for the future	
Total	9.875/10	

Contract details

Token contract details for 05th February 2022

Contract name	ETH Fan Token Ecosystem
Contract address	0xb72962568345253f71a18318d67e13a282b187e6
Token supply	1,000,000,000,000
Token ticker	EFT
Decimals	18
Token holders	4
Transaction count	15
Development wallet address	0xa65c2c35cc10265bfc1ac83e2a143d21d3787da1
Marketing address	0x54f563a778065f97e1bf8fd0f521502bf9c7d867
Dividend tracker	0x9ee944c13a7f4aa9d69237e9dfc01e58cff37cb5
Contract deployer address	0x374818fA8920228104dcb83D8231Ed81e755a100
Contract's current owner address	0x374818fa8920228104dcb83d8231ed81e755a100

Contract code function details

No	Category	Item	Result
		BRC20 Token standards	pass
		compile errors	pass
		Compiler version security	pass
		visibility specifiers	pass
		Gas consumption	pass
1	Coding conventions	SafeMath features	pass
		Fallback usage	pass
		tx.origin usage	pass
		deprecated items	pass
		Redundant code	pass
		Overriding variables	pass
		Authorization of function call	pass
2	Function call audit	Low level function (call/delegate call) security	pass
		Returned value security	pass
		Selfdestruct function security	pass
		Access control of owners	pass
3	Business security	Business logics	low issue
		Business implementations	pass
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	Туре	Bases		
L	Function Name	Visibility	Mutability	Modifiers
IERC20	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[
IERC20Metadata	Interface	IERC20		
L	name	External [NO
L	symbol	External [NO[
L	decimals	External [NO[
Context	Implementation			
L	_msgSender	Internal 🖺		

L	_msgData	Internal 🖺	
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 🖺	
ERC20	Implementation	Context, IERC20, IERC20Metadata	
L		Public 🎚	№
L	name	External 🎚	МО[
L	symbol	External 🎚	ио≬
L	decimals	Public 🎚	NO
L	totalSupply	Public 🎚	NO
L	balanceOf	Public 🎚	NO
L	transfer	Public [NO[

<u> </u>	<u> </u>		1	1
L	allowance	Public		NO
L	approve	Public 🎚		МО[
L	transferFrom	Public		NO
L	increaseAllowance	Public		NO
L	decreaseAllowanc e	Public		№
L	_transfer	Internal 🖺		
L	_mint	Internal 🖺		
L	_burn	Internal 🖺		
L	_approve	Internal 🖺		
L	_beforeTokenTran sfer	Internal 🖺		
SafeMathUint	Library			
L	toInt256Safe	Internal 🖺		
	-		1	-
SafeMathInt	Library			
L	mul	Internal 🖺		
L	div	Internal 🖺		
L	sub	Internal 🖺		
L	add	Internal 🖺		
L	abs	Internal 🖺		

L	toUint256Safe	Internal 🖺	
DividendPayingToken Interface	Interface		
L	dividendOf	External 🌡	NO
L	withdrawDividend	External 🎚	NO[
DividendPayingToken OptionalInterface	Interface		
L	withdrawableDivid endOf	External 🌡	NO
L	withdrawnDividend Of	External 🌡	NO
L	accumulativeDivid endOf	External [NO
Ownable	Implementation	Context	
L		Public	NO
L	owner	Public 🌡	NO
L	renounceOwnershi p	Public 🎚	onlyOwner
L	transferOwnership	Public 🎚	onlyOwner
			,
DividendPayingToken	Implementation	ERC20, Ownable, DividendPayingToken Interface, DividendPayingToken OptionalInterface	
L		Public [ERC20

L	distributeETHDivid ends	Public [onlyOwner
L	withdrawDividend	Public [NO
L	_withdrawDividend OfUser	Internal 🖺		
L	dividendOf	Public [NO
L	withdrawableDivid endOf	Public [NO
L	withdrawnDividend Of	Public 🏿		NO
L	accumulativeDivid endOf	Public [NO
L	_transfer	Internal 🖺		
L	_mint	Internal 🖺		
L	_burn	Internal 🖺		
L	_setBalance	Internal 🖺		
IterableMapping	Library			
L	get	Public [NO]
L	getIndexOfKey	Public [NO
L	getKeyAtIndex	Public 🎚		NO
L	size	Public		NO
L	set	Public		NO
L	remove	Public 🏻		NO
	1		<u>'</u>	

IUniswapV2Pair	Interface		
L	name	External 🎚	NO
L	symbol	External 🎚	NO
L	decimals	External 🌡	NO[
L	totalSupply	External 🎚	NO
L	balanceOf	External 🎚	NO
L	allowance	External 🎚	NO
L	approve	External	NO
L	transfer	External 🎚	NO
L	transferFrom	External 🎚	NO
L	DOMAIN_SEPAR ATOR	External	NO
L	PERMIT_TYPEHA SH	External 🎚	NO
L	nonces	External 🎚	NO
L	permit	External 🎚	NO
L	MINIMUM_LIQUID ITY	External 🎚	NO
L	factory	External 🎚	NO
L	token0	External 🎚	NO
L	token1	External 🌡	NO
L	getReserves	External 🎚	 NO

L	price0CumulativeL ast	External [NO
L	price1CumulativeL ast	External [NO
L	kLast	External [NO
L	mint	External [NO
L	burn	External [NO
L	swap	External [NO
L	skim	External [NO]
L	sync	External [NO
L	initialize	External [NO
IUniswapV2Factory	Interface			
IUniswapV2Factory	Interface feeTo	External [NO
		External [NOI
L	feeTo			
L L	feeTo feeToSetter	External [NOI
L L	feeTo feeToSetter getPair	External [NOI
L L L	feeTo feeToSetter getPair allPairs	External [] External [] External []		NO[]
L L L	feeTo feeToSetter getPair allPairs allPairsLength	External [] External [] External []		NO] NO] NO]
L L L L	feeTo feeToSetter getPair allPairs allPairsLength createPair	External External External External External External External	_	NO] NO] NO]

IUniswapV2Router01	Interface			
L	factory	External [№
L	WETH	External [NO
L	addLiquidity	External [№
L	addLiquidityETH	External [ŒÐ	NO
L	removeLiquidity	External [NO
L	removeLiquidityET H	External [NO
L	removeLiquidityWi thPermit	External [NO
L	removeLiquidityET HWithPermit	External [NO
L	swapExactTokens ForTokens	External [NO
L	swapTokensForEx actTokens	External [NO
L	swapExactETHFor Tokens	External [ŒБ	NO
L	swapTokensForEx actETH	External [NO
L	swapExactTokens ForETH	External [NO
L	swapETHForExact Tokens	External [ŒБ	NO
L	quote	External [NO
L	getAmountOut	External [NO
L	getAmountIn	External [NO
L	getAmountsOut	External [NO

L	getAmountsIn	External		NO
IUniswapV2Router02	Interface	IUniswapV2Router01		
L	removeLiquidityET HSupportingFeeO nTransferTokens	External		NO[
L	removeLiquidityET HWithPermitSupp ortingFeeOnTransf erTokens	External		NO
L	swapExactTokens ForTokensSupport ingFeeOnTransfer Tokens	External 🏻		NO
L	swapExactETHFor TokensSupporting FeeOnTransferTo kens	External 🏻	<u>cin</u>	NO
L	swapExactTokens ForETHSupporting FeeOnTransferTo kens	External 🏻		NO
EFT	Implementation	ERC20, Ownable		
L		Public [ERC20
L		External	ВD	NO
L	setTradingEnabled	External 🎚		onlyOwner
L	addToBlackList	External 🎚		onlyOwner
L	removeFromBlack List	External 🎚		onlyOwner
L	isBlacklisted	Public		NO
L	addToWhitelist	External	•	onlyOwner

L	setAutomatedMark etMakerPair	Public 🎚		onlyOwner
L	updateDividendTr acker	Public [onlyOwner
L	updateUniswapV2 Router	Public [onlyOwner
L	excludeOrIncludeF romFees	Public [onlyOwner
L	excludeOrInclude MultipleAccountsF romFees	Public [•	onlyOwner
L	excludeOrIncludeF romMaxTx	Public [onlyOwner
L	excludeOrIncludeF romMaxWallet	Public [onlyOwner
L	setMaxWalletToke n	External [•	onlyOwner
L	setMaxtx	Public [onlyOwner
L	setMarketingWalle t	External [onlyOwner
L	setDevelopmentW allet	External [onlyOwner
L	setBuyFees	External [onlyOwner
L	setSellFees	External [onlyOwner
L	_setAutomatedMa rketMakerPair	Private 🖺		
L	updateGasForPro cessing	Public [onlyOwner
L	updateClaimWait	External [onlyOwner
L	getClaimWait	External [NO
L	getTotalDividends Distributed	External [NO
L	isExcludedFromFe es	Public [NO[
L		Public ∦		NO≬

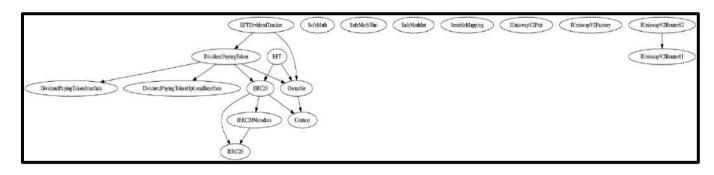
L	isExcludedFromM axTx	Public	NO[
L	isExcludedFromM axWallet	Public [NO
L	withdrawableDivid endOf	Public	NO
L	dividendTokenBal anceOf	Public [NO
L	excludeFromDivid ends	External [onlyOwner
L	getAccountDividen dsInfo	External [NO
L	getAccountDividen dsInfoAtIndex	External [NO
L	processDividendTr acker	External [NO
L	claim	External 🎚	NO
L	getLastProcessedI ndex	External [NO
L	getNumberOfDivid endTokenHolders	External [№
L	changeSwapToke nsAtAmount	External [onlyOwner
L	extraFeeOnSell	Internal 🖺	
L	_transfer	Internal 🖺	
L	swapAndLiquify	Private 🖺	
L	swapTokensForEt h	Private 🖺	
L	manualSwapToke nsForEth	Public [onlyOwner
L	swapTokensForET H	Private 🖺	
L	addLiquidity	Private 🖺	

			T	1
L	swapAndSendDivi dends	Private 🖺		
L	withdrawStuckBN B	External [onlyOwner
L	removeStuckToke n	External [onlyOwner
EFTDividendTracker	Implementation	Ownable, DividendPayingToken		
L		Public [DividendPa yingToken
L	_transfer	Internal 🖺		
L	withdrawDividend	Public [NO
L	excludeFromDivid ends	External [onlyOwner
L	updateClaimWait	External [onlyOwner
L	getLastProcessedI ndex	External [NO
L	getNumberOfToke nHolders	External [NO[
L	getAccount	Public 🎚		NO
L	getAccountAtIndex	Public [NO
L	canAutoClaim	Private 🖺		
L	setBalance	External [onlyOwner
L	process	Public		NO
L	processAccount	Public		onlyOwner

Legend

Symbol	Meaning
	Function can modify state
g _D	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

Max transaction limit check only users are not excluding from fees, if they
exclude from fees, they will automatically exclude from max transaction limit.

Checking the same condition twice.

```
if (
    (!_isExcludedFromMaxTx[from1]) && (!_isExcludedFromMaxTx[from1])
) {
    require(
        amount1 <= maxTransactionAmount,
        "transfer amount exceeds the maxSellTransactionAmount."
);
}</pre>
```

❖ Informational

• The owner can change max wallet and max transaction amount without any limitation (can see to 0)

```
ftrace|funcSig
function setMaxWalletToken(uint256 _maxToken1) external onlyOwner {
    maxWalletToken = _maxToken1;
}

ftrace|funcSig
function setMaxtx(uint256 _maxTxAmount1) public onlyOwner {
    maxTransactionAmount = _maxTxAmount1;
}
```

• The owner can disable trading.

```
ftrace|funcSig
function setTradingEnabled(bool _enabled1) external onlyOwner {
    tradingEnabled = _enabled1;
}
```

Owner privileges

The owner can update the dividend tracker.

```
function updateDividendTracker(address newAddress1) public onlyOwner {
       "EFT: The dividend tracker already has that address"
   EFTDividendTracker newDividendTracker = EFTDividendTracker(
       payable(newAddress 1)
       newDividendTracker.owner() == address(this),
       "EFT: The new dividend tracker must be owned by the EFT token contract"
   newDividendTracker.excludeFromDividends(address(newDividendTracker));
   newDividendTracker.excludeFromDividends(address(this));
   newDividendTracker.excludeFromDividends(owner());
   newDividendTracker.excludeFromDividends(address(uniswapV2Router));
   dividendTracker.excludeFromDividends(_marketingWalletAddress);
   dividendTracker.excludeFromDividends(_developmentWalletAddress);
   dividendTracker.excludeFromDividends(_futureDeployer);
   emit UpdateDividendTracker(newAddress1, address(dividendTracker));
   dividendTracker = newDividendTracker;
```

The owner can include/exclude wallets from fees.

❖ The owner can include/exclude wallets from max transaction limit.

❖ The owner can include/exclude wallet from max wallet.

The owner can change the swap point.

```
ftrace|funcSig
function changeSwapTokensAtAmount(uint256 swapAmount1) external onlyOwner {
    swapTokensAtAmount = swapAmount1;
}
```

❖ The owner can change max wallet and max transaction token amount.

```
ftrace|funcSig
function setMaxWalletToken(uint256 _maxToken1) external onlyOwner {
    maxWalletToken = _maxToken1;
}

ftrace|funcSig
function setMaxtx(uint256 _maxTxAmount1) public onlyOwner {
    maxTransactionAmount = _maxTxAmount1;
}
```

❖ The owner can change marketing and dev wallet.

❖ The owner can add/remove wallets from blacklist.

```
ftrace|funcSig
function addToBlackList(address _add1) external onlyOwner {
    _blacklisted[_add1] = true;
}

ftrace|funcSig
function removeFromBlackList(address _add1) external onlyOwner {
    _blacklisted[_add1] = false;
}
```

❖ The owner can change buy fees maximum up to 20%.

```
ftrace | funcSig
function setBuyFees(
    uint256 buyEthRewardFee1,
    uint256 buyLiquidityFee1,
    uint256 buyMarketingFee*,
    uint256 buyDevFee*
) external onlyOwner {
    BuyETHRewardsFee = buyEthRewardFee1;
    BuyLiquidityFee = buyLiquidityFee1;
    BuyMarketingFee = buyMarketingFee*;
    BuyDevFee = buyDevFee1;
    BuyTotalFees = _BuyETHRewardsFee
        .add(_BuyLiquidityFee)
        .add(_BuyMarketingFee)
        .add(_BuyDevFee);
    require(
        _BuyTotalFees >= 0 && _BuyTotalFees <= 20,
        "Fees are exceeding the limits"
    );
```

❖ The owner can change sell fees maximum up to 20%.

```
ftrace | funcSig
function setSellFees(
    uint256 sellEthRewardFee1,
    uint256 sellLiquidityFee1,
    uint256 sellMarketingFee1,
    uint256 sellDevFee1
) external onlyOwner {
    _SellETHRewardsFee = sellEthRewardFee 1;
    SellLiquidityFee = sellLiquidityFee1;
    _SellMarketingFee = sellMarketingFee†;
    SellDevFee = sellDevFee1;
    SellTotalFees = SellETHRewardsFee
        .add(_SellLiquidityFee)
        .add(_SellMarketingFee)
        .add(_SellDevFee);
        _SellTotalFees >= 0 && _SellTotalFees <= 20,
        "Fees are exceeding the limits"
    );
```

The owner can manually swap tokens.

The owner can enable/disable trading.

```
ftrace|funcSig
function setTradingEnabled(bool _enabled1) external onlyOwner {
    tradingEnabled = _enabled1;
}
```

Audit conclusion

While conducting the audit of the ETH Fan Eco System Token smart contract, it was observed that there is nothing alarming with the code, and it only contains a low severity issues and informational concerns.