

Audit Report CateNftify

August 2022

Type BEP20

Network BSC

Address 0x587a228846eDe3144B9E3d064B157e752cbB54e5

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Table of Contents

Table of Contents	1
Contract Review	3
Source Files	3
Audit Updates	3
Contract Analysis	4
Contract Diagnostics	5
STC - Succeeded Transfer Check	6
Description	6
Recommendation	6
L01 - Public Function could be Declared External	7
Description	7
Recommendation	7
L02 - State Variables could be Declared Constant	8
Description	8
Recommendation	8
L03 - Redundant Statements	9
Description	9
Recommendation	9
L04 - Conformance to Solidity Naming Conventions	10
Description	10
Recommendation	10
L07 - Missing Events Arithmetic	11
Description	11
Recommendation	11
L09 - Dead Code Elimination	12
Description	12

Recommendation	12
L11 - Unnecessary Boolean equality	13
Description	13
Recommendation	13
Contract Functions	14
Contract Flow	19
Domain Info	20
Summary	21
Disclaimer	22
About Cyberscope	23



Contract Review

Contract Name	CateNftify
Compiler Version	v0.8.16+commit.07a7930e
Optimization	200 runs
Licence	MIT
Explorer	https://bscscan.com/token/0x587a228846eDe3144B9E3 d064B157e752cbB54e5
Symbol	Cate
Decimals	18
Total Supply	100,000,000
Domain	https://www.catenftify.network

Source Files

Filename	SHA256
contract.sol	5d394ddb1d70d6150810eb50e6d8aa5a22aafc52470022 514926a55ec66cdda4

Audit Updates

Initial Audit	24th August 2022
Corrected	



Contract Analysis

CriticalMediumMinor / InformativePass

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
•	ВТ	Burns Tokens	Passed
•	ВС	Blacklists Addresses	Passed

Contract Diagnostics

CriticalMediumMinor / Informative

Severity	Code	Description	Status
•	STC	Succeeded Transfer Check	Unresolved
•	L01	Public Function could be Declared External	Unresolved
•	L02	State Variables could be Declared Constant	Unresolved
•	L03	Redundant Statements	Unresolved
•	L04	Conformance to Solidity Naming Conventions	Unresolved
•	L07	Missing Events Arithmetic	Unresolved
•	L09	Dead Code Elimination	Unresolved
•	L11	Unnecessary Boolean equality	Unresolved



STC - Succeeded Transfer Check

Criticality	minor / informative
Location	contract.sol#L731
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 claimStuckTokens(address token) external onlyOwner {
    require(token != address(this), "Owner cannot claim native tokens");
    if (token == address(0x0)) {
        payable(msg.sender).transfer(address(this).balance);
        return;
    }
    IERC20 ERC20token = IERC20(token);
    uint256 balance = ERC20token.balanceOf(address(this));
    ERC20token.transfer(msg.sender, balance);
}
```

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#L167,81,119,201,115,137,188,722,111,157,800,147
Status	Unresolved

Description

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

transferFrom
renounceOwnership
decimals
decreaseAllowance
symbol
transfer
increaseAllowance
openTrade
name
...

Recommendation

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



L02 - State Variables could be Declared Constant

Criticality	minor / informative
Location	contract.sol#L651
Status	Unresolved

Description

Constant state variables should be declared constant to save gas.

DEAD

Recommendation

Add the constant attribute to state variables that never change.



L03 - Redundant Statements

Criticality	minor / informative
Location	contract.sol#L47
Status	Unresolved

Description

The contract contains statements that are not used and have no effect. As a result, those segments increase the code size of the contract unnecessarily.

Context

Recommendation

Remove the redundant statements in order to decrease the code size.



L04 - Conformance to Solidity Naming Conventions

Criticality	minor / informative
Location	contract.sol#L820,806,358,389,651,356,848,832,819,433,805
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.

```
_marketingFeeOnSell
_marketingFeeOnBuy
PERMIT_TYPEHASH
MINIMUM_LIQUIDITY
DEAD
DOMAIN_SEPARATOR
_operatorWWallet
_marketingWallet
_liquidityFeeOnSell
...
```

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#L986
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.

swap Tokens At Amount = new Amount

Recommendation

Emit an event for critical parameter changes.



L09 - Dead Code Elimination

Criticality	minor / informative
Location	contract.sol#L255
Status	Unresolved

Description

Functions that are not used in the contract, and make the code's size bigger.

_burn

Recommendation

Remove unused functions.



L11 - Unnecessary Boolean equality

Criticality	minor / informative
Location	contract.sol#L722
Status	Unresolved

Description

The comparison to boolean constants is redundant. Boolean constants can be used directly and do not need to be compared to true or false.

require(bool,string)(isTradingEnabled == false,Trading is already open!)

Recommendation

Remove the equality to the boolean constant.



Contract Functions

Contract	Туре	Bases		
	Function Name	Visibility	Mutability	Modifiers
IERC20	Interface			
IENO20		External		
	totalSupply balanceOf	External		-
				-
	transfer	External	1	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	1	-
IERC20Metad ata	Interface	IERC20		
	name	External		-
	symbol	External		-
	decimals	External		-
Context	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
Ownable	Implementation	Context		
	<constructor></constructor>	Public	1	-
	owner	Public		-
	renounceOwnership	Public	1	onlyOwner
	transferOwnership	Public	1	onlyOwner
ERC20	Implementation	Context, IERC20, IERC20Met adata		
	<constructor></constructor>	Public	1	-
	name	Public		-



	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	√	-
	allowance	Public		-
	approve	Public	1	-
	transferFrom	Public	√	-
	increaseAllowance	Public	√	-
	decreaseAllowance	Public	√	-
	_transfer	Internal	✓	
	_mint	Internal	1	
	_burn	Internal	1	
	_approve	Internal	✓	
	_beforeTokenTransfer	Internal	1	
	_afterTokenTransfer	Internal	✓	
IUniswapV2Fa ctory	Interface			
	feeTo	External		-
	feeToSetter	External		-
	getPair	External		-
	allPairs	External		-
	allPairsLength	External		-
	createPair	External	1	-
	setFeeTo	External	1	-
	setFeeToSetter	External	✓	-
IUniswapV2Pa ir	Interface			
	name	External		-
	symbol	External		-
	decimals	External		-
	totalSupply	External		-
	balanceOf	External		-



	allowance	External		-
	approve	External	1	-
	transfer	External	✓	-
	transferFrom	External	1	-
	DOMAIN_SEPARATOR	External		-
	PERMIT_TYPEHASH	External		-
	nonces	External		-
	permit	External	✓	-
	MINIMUM_LIQUIDITY	External		-
	factory	External		-
	token0	External		-
	token1	External		-
	getReserves	External		-
	price0CumulativeLast	External		-
	price1CumulativeLast	External		-
	kLast	External		-
	mint	External	1	-
	burn	External	✓	-
	swap	External	✓	-
	skim	External	1	-
	sync	External	1	-
	initialize	External	1	-
IUniswapV2Ro uter01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidity	External	1	-
	addLiquidityETH	External	Payable	-
	removeLiquidity	External	✓	-
	removeLiquidityETH	External	✓	-
	removeLiquidityWithPermit	External	1	-
	removeLiquidityETHWithPermit	External	1	-
	swapExactTokensForTokens	External	✓	-
	swapTokensForExactTokens	External	1	-



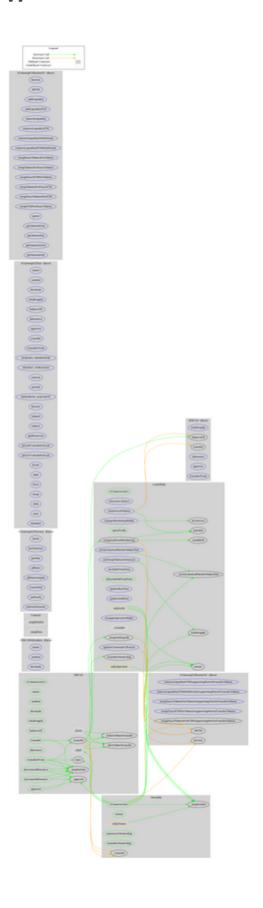
	swapExactETHForTokens	External	Payable	-
	swapTokensForExactETH	External	✓	-
	swapExactTokensForETH	External	1	-
	swapETHForExactTokens	External	Payable	-
	quote	External		-
	getAmountOut	External		-
	getAmountIn	External		-
	getAmountsOut	External		-
	getAmountsIn	External		-
IUniswapV2Ro uter02	Interface	IUniswapV2 Router01		
	removeLiquidityETHSupportingFeeO nTransferTokens	External	1	-
	removeLiquidityETHWithPermitSupp ortingFeeOnTransferTokens	External	1	-
	swapExactTokensForTokensSupporti ngFeeOnTransferTokens	External	1	-
	swapExactETHForTokensSupporting FeeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupporting FeeOnTransferTokens	External	✓	-
CateNftify	Implementation	ERC20, Ownable		
	<constructor></constructor>	Public	1	ERC20
	<receive ether=""></receive>	External	Payable	-
	openTrade	Public	1	onlyAuth
	claimStuckTokens	External	1	onlyOwner
	isContract	Internal		
	sendBNB	Internal	1	
	updateUniswapV2Router	External	1	onlyOperator
	setAutomatedMarketMakerPair	External	1	onlyOperator
	_setAutomatedMarketMakerPair	Private	1	
	excludeFromFees	External	✓	onlyOwner
	isExcludedFromFees	Public		-
	updateBuyFees	External	1	onlyOwner



updateSellFees	External	✓	onlyOwner
changeMarketingWallet	External	✓	onlyOwner
changeOperatorWallet	External	✓	onlyOperator
_transfer	Internal	✓	
swapAndLiquify	Private	✓	
swapAndSendMarketing	Private	✓	
setSwapTokensAtAmount	External	✓	onlyOwner



Contract Flow





Domain Info

Domain Name	catenftify.network
Registry Domain ID	a9a8ec5bf08a4f28854b6d84ae0c6b5f-DONUTS
Creation Date	2022-08-08T12:39:16Z
Updated Date	2022-08-13T12:39:23Z
Registry Expiry Date	2023-08-08T12:39:16Z
Registrar WHOIS Server	whois.godaddy.com/
Registrar URL	http://www.godaddy.com/domains/search.aspx?ci=89 90
Registrar	GoDaddy.com, LLC
Registrar IANA ID	146

The domain was created 16 days before the creation of the audit. It will expire in 12 months.

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



Summary

The Smart Contract analysis reported one minor severity issue. The contract owner has the authority to transfer funds to the team's wallet. Other than that, 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 10% fees.



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Coinscope audit and K.Y.C. service has been rebranded to Cyberscope.

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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