

# Audit Report

# NextDoge

February 2022

Type BEP20

Network BSC

Address 0xfbd947ece44ae1F6dAF8eA254Da4574d884d4De4

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# **Contract Review**

Contract Name	BABYTOKEN
Compiler Version	v0.8.4+commit.c7e474f2
Optimization	200 runs
Licence	MIT
Explorer	https://bscscan.com/token/0xfbd947ece44ae1f6daf8e a254da4574d884d4de4
Symbol	NDOGE
Decimals	18
Total Supply	30,000,000
Source	contract.sol
Domain	nextdoge.io

# **Audit Updates**

Initial Audit	11th February 2022
Corrected	



# **Contract Analysis**

CriticalMediumMinorPass

Severity	Code	Description
•	ST	Contract Owner is not able to stop or pause transactions
•	OCTD	Contract Owner is not able to transfer tokens from specific address
•	OTUT	Owner Transfer User's Tokens
•	ELFM	Contract Owner is not able to increase fees more than a reasonable percent (25%)
•	ULTW	Contract Owner is not able to increase the amount of liquidity taken by dev wallet more than a reasonable percent
•	MT	Contract Owner is not able to mint new tokens
•	ВТ	Contract Owner is not able to burn tokens from specific wallet
•	ВС	Contract Owner is not able to blacklist wallets from selling



# **Contract Diagnostics**

CriticalMediumMinor

Severity	Code	Description
•	L01	Public Function could be Declared External
•	L05	Unused State Variable
•	L04	Conformance to Solidity Naming Conventions
•	L09	Dead Code Elimination
•	L12	Using Variables before Declaration
•	L07	Missing Events Arithmetic
•	L15	Local Scope Variable Shadowing
•	L14	Uninitialized Variables in Local Scope



#### L01 - Public Function could be Declared External

Criticality	minor
Location	contract.sol#L203,211,228,235,254,262 and 37 more

#### Description

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

isExcludedFromDividends
dividendTokenBalanceOf
withdrawableDividendOf

#### Recommendation

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



### L05 - Unused State Variable

Criticality	minor
Location	contract.sol#L1843,1774

#### Description

There are segments that contain unused state variables.

\_\_gap MAX\_INT256

#### Recommendation

Remove unused state variables.



# L04 - Conformance to Solidity Naming Conventions

Criticality	minor
Location	contract.sol#L931,1315,1319,1328,1386,1391 and 18 more

#### 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.

```
_marketingWalletAddress
_account
magnitude
...
```

#### Recommendation

Follow the Solidity naming convention.

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



### L09 - Dead Code Elimination

Criticality	minor
Location	contract.sol#L845,879,859,136,1315,1325 and 15 more

#### Description

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

```
mul
div
abs
...
```

#### Recommendation

Remove unused functions.



### L12 - Using Variables before Declaration

Criticality	minor
Location	contract.sol#L3036,3035,3034

#### 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.

iterations
claims
lastProcessedIndex

#### Recommendation

The variables should be declared before any usage of them.



## L07 - Missing Events Arithmetic

Criticality	minor
Location	contract.sol#L2720,2786,2792,2798

#### 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.

```
marketingFee = value
liquidityFee = value
totalFees = tokenRewardsFee.add(liquidityFee).add(marketingFee)
...
```

#### Recommendation

Emit an event for critical parameter changes.



## L15 - Local Scope Variable Shadowing

Criticality	minor
Location	contract.sol#L2108,2109,2168,2175,2187,2201

#### Description

The are variables that are defined in the local scope containing the same name from an upper scope.

```
_owner
_symbol
_name
...
```

#### Recommendation

The local variables should have different names from the upper scoped variables.



# L14 - Uninitialized Variables in Local Scope

Criticality	minor
Location	contract.sol#L3034,3035,3036

#### Description

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

lastProcessedIndex
claims
iterations

#### Recommendation

All the local scoped variables should be initialized.



# **Contract Functions**

Contract	Туре	Bases		
	Function Name	Visibility	Mutability	Modifiers
IEDO00	Interface			
IERC20		Enternal		
	totalSupply balanceOf	External External		-
				-
	transfer	External	<b>✓</b>	-
	allowance	External		-
	approve	External	✓ .	-
	transferFrom	External	<b>✓</b>	-
IERC20Metad ata	Interface	IERC20		
	name	External		-
	symbol	External		-
	decimals	External		-
Context	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
ERC20	Implementation	Context, IERC20, IERC20Meta data		
	<constructor></constructor>	Public	✓	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	1	-



	allowance	Public		-
	approve	Public	1	-
	transferFrom	Public	1	-
	increaseAllowance	Public	1	-
	decreaseAllowance	Public	1	-
	_transfer	Internal	1	
	_mint	Internal	1	
	_burn	Internal	1	
	_approve	Internal	1	
	_beforeTokenTransfer	Internal	1	
	_afterTokenTransfer	Internal	1	
Ownable	Implementation	Context		
	<constructor></constructor>	Public	1	-
	owner	Public		-
	renounceOwnership	Public	1	onlyOwner
	transferOwnership	Public	1	onlyOwner
	_setOwner	Private	1	
SafeMath	Library			
	tryAdd	Internal		
	trySub	Internal		
	tryMul	Internal		
	tryDiv	Internal		
	tryMod	Internal		
	add	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	mod	Internal		
	sub	Internal		
	div	Internal		
	mod	Internal		



	clone	Internal	<b>√</b>	
	cloneDeterministic	Internal	✓	
	predictDeterministicAddress	Internal		
	predictDeterministicAddress	Internal		
IUniswapV2Fa ctory	Interface			
	feeTo	External		-
	feeToSetter	External		-
	getPair	External		-
	allPairs	External		-
	allPairsLength	External		-
	createPair	External	<b>✓</b>	-
	setFeeTo	External	1	-
	setFeeToSetter	External	<b>√</b>	-
IUniswapV2Ro uter01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidity	External	1	-
	addLiquidityETH	External	Payable	-
	removeLiquidity	External	<b>✓</b>	-
	removeLiquidityETH	External	1	-
	removeLiquidityWithPermit	External	1	-
	removeLiquidityETHWithPermit	External	1	-
	swapExactTokensForTokens	External	1	-
	swapTokensForExactTokens	External	1	-
	swapExactETHForTokens	External	Payable	-
	swapTokensForExactETH	External	<b>✓</b>	-
	swapExactTokensForETH	External	1	-
	swapETHForExactTokens	External	Payable	-
	quote	External	-	-
	getAmountOut	External		-
	getAmountIn	External		-
	getAmountsOut	External		_



	getAmountsIn	External		-
IUniswapV2Ro uter02	Interface	IUniswapV2 Router01		
	removeLiquidityETHSupportingFeeOn TransferTokens	External	✓	-
	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokensSupporti ngFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingF eeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupportingF eeOnTransferTokens	External	✓	-
IERC20Upgrad eable	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
IERC20Metad ataUpgradeabl e	Interface	IERC20Upgr adeable		
	name	External		-
	symbol	External		-
	decimals	External		-
Initializable	Implementation			
ContextUpgra deable	Implementation	Initializable		
	Context_init	Internal	<b>✓</b>	initializer
	Context_init_unchained	Internal	1	initializer
	_msgSender	Internal		
	_msgData	Internal		



ERC20Upgrad eable	Implementation	Initializable, ContextUpg radeable, IERC20Upgr adeable, IERC20Meta dataUpgrad eable		
	ERC20_init	Internal	1	initializer
	ERC20_init_unchained	Internal	1	initializer
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	1	-
	allowance	Public		-
	approve	Public	1	-
	transferFrom	Public	1	-
	increaseAllowance	Public	1	-
	decreaseAllowance	Public	1	-
	_transfer	Internal	1	
	_mint	Internal	<b>✓</b>	
	_burn	Internal	1	
	_approve	Internal	<b>√</b>	
	_beforeTokenTransfer	Internal	1	
	_afterTokenTransfer	Internal	1	
OwnableUpgr adeable	Implementation	Initializable, ContextUpg radeable		
	Ownable_init	Internal	1	initializer
	Ownable_init_unchained	Internal	1	initializer
	owner	Public		-
	renounceOwnership	Public	1	onlyOwner
	transferOwnership	Public	1	onlyOwner
	_setOwner	Private	1	



UniswapV2Pa	Interface			
r				
	name	External		-
	symbol	External		-
	decimals	External		-
	totalSupply	External		-
	balanceOf	External		-
	allowance	External		-
	approve	External	✓	-
	transfer	External	✓	-
	transferFrom	External	✓	-
	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	✓	-
	burn	External	✓	-
	swap	External	1	-
	skim	External	✓	-
	sync	External	1	-
	initialize	External	1	-
afeMathInt	Library			
	mul	Internal		
	div	Internal		
	sub	Internal		
	add	Internal		



	abs	Internal		
	toUint256Safe	Internal		
SafeMathUint	Library			
	toInt256Safe	Internal		
IterableMappi ng	Library			
	get	Public		-
	getIndexOfKey	Public		-
	getKeyAtIndex	Public		-
	size	Public		-
	set	Public	✓	-
	remove	Public	✓	-
DividendPayin gTokenInterfa ce	Interface			
	dividendOf	External		-
	withdrawDividend	External	✓	-
DividendPayin gTokenOption alInterface	Interface			
	withdrawableDividendOf	External		-
	withdrawnDividendOf	External		-
	accumulativeDividendOf	External		-
DividendPayin gToken	Implementation	ERC20Upgr adeable, OwnableUp gradeable, DividendPay ingTokenInt erface, DividendPay ingTokenOp tionalInterfa		
	DividendPayingToken_init	Internal	1	initializer



	distributeCAKEDividends	Public	✓	onlyOwner
	withdrawDividend	Public	1	-
	_withdrawDividendOfUser	Internal	1	
	dividendOf	Public		-
	withdrawableDividendOf	Public		-
	withdrawnDividendOf	Public		-
	accumulativeDividendOf	Public		-
	_transfer	Internal	1	
	_mint	Internal	1	
	_burn	Internal	1	
	_setBalance	Internal	1	
BABYTOKEND ividendTracker	Implementation	OwnableUp gradeable, DividendPay ingToken		
	initialize	External	1	initializer
	_transfer	Internal		
	withdrawDividend	Public		-
	excludeFromDividends	External	1	onlyOwner
	isExcludedFromDividends	Public		-
	updateClaimWait	External	1	onlyOwner
	updateMinimumTokenBalanceForDivi dends	External	✓	onlyOwner
	getLastProcessedIndex	External		-
	getNumberOfTokenHolders	External		-
	getAccount	Public		-
	getAccountAtIndex	Public		-
	canAutoClaim	Private		
	setBalance	External	1	onlyOwner
	process	Public	1	-
	processAccount	Public	1	onlyOwner
BaseToken	Implementation			
BABYTOKEN	Implementation	ERC20, Ownable,		



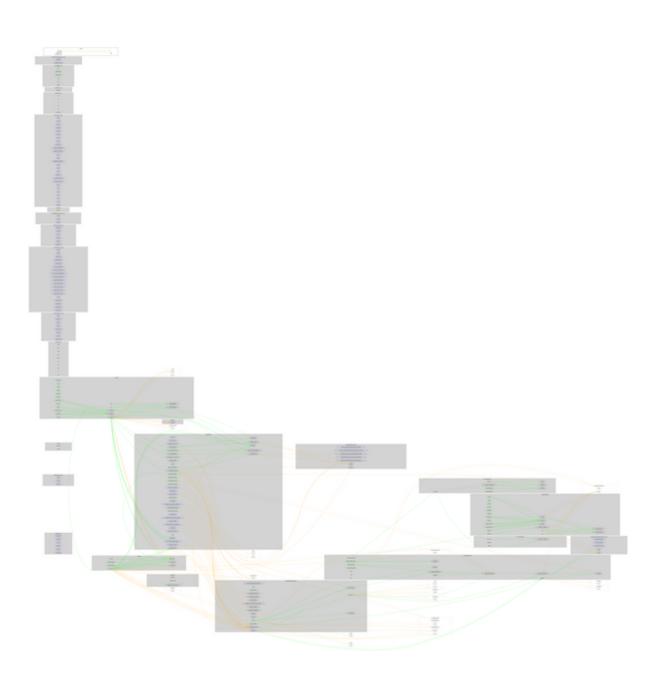
	BaseToken		
<constructor></constructor>	Public	Payable	ERC20
<receive ether=""></receive>	External	Payable	-
setSwapTokensAtAmount	External	1	onlyOwner
updateDividendTracker	Public	1	onlyOwner
updateUniswapV2Router	Public	1	onlyOwner
excludeFromFees	Public	✓	onlyOwner
excludeMultipleAccountsFromFees	Public	✓	onlyOwner
setMarketingWallet	External	1	onlyOwner
setTokenRewardsFee	External	1	onlyOwner
setLiquiditFee	External	1	onlyOwner
setMarketingFee	External	1	onlyOwner
setAutomatedMarketMakerPair	Public	✓	onlyOwner
_setAutomatedMarketMakerPair	Private	✓	
updateGasForProcessing	Public	✓	onlyOwner
updateClaimWait	External	1	onlyOwner
getClaimWait	External		-
updateMinimumTokenBalanceForDivi dends	External	1	onlyOwner
getMinimumTokenBalanceForDividen ds	External		-
getTotalDividendsDistributed	External		-
isExcludedFromFees	Public		-
withdrawableDividendOf	Public		-
dividendTokenBalanceOf	Public		-
excludeFromDividends	External	✓	onlyOwner
isExcludedFromDividends	Public		-
getAccountDividendsInfo	External		-
getAccountDividendsInfoAtIndex	External		-
processDividendTracker	External	1	-
claim	External	1	-
getLastProcessedIndex	External		-
getNumberOfDividendTokenHolders	External		-
_transfer	Internal	1	
swapAndSendToFee	Private	✓	
swapAndLiquify	Private	1	



swapTokensForEth	Private	✓	
swapTokensForCake	Private	✓	
addLiquidity	Private	✓	
swapAndSendDividends	Private	✓	



# **Contract Flow**





## Domain Info

Domain Name	nextdoge.io
Registry Domain ID	f286074b2b7d4151b2cc87b89a6900f8-DONUTS
Creation Date	2022-02-10T11:34:24Z
Updated Date	2022-02-10T18:09:02Z
Registry Expiry Date	2023-02-10T11:34:24Z
Registrar WHOIS Server	whois.namecheap.com
Registrar URL	https://www.namecheap.com/
Registrar	NameCheap, Inc.
Registrar IANA ID	1068

The domain has been created 1 day 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

NextDoge aims to launch an NFT Marketplace based on \$DOGE. The Project 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 25% fees.



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## **About Coinscope**

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.

Coinscope is aiming to make crypto discoverable and efficient globally. It provides all the essential tools to assist users draw their own conclusions.



The Coinscope.co team

https://www.coinscope.co