



# **Smart Contract Security Audit**

<u>TechRate</u> August, 2021

### **Audit Details**



**Audited project** 

**SHARKCAKE** 



Deployer address

0xa3e4bCDf69812DB798B544FA6e14795085Be4498



**Client contacts:** 

**SHARKCAKE** team



Blockchain

**Binance Smart Chain** 





### **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 below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

## **Background**

TechRate was commissioned by SHARKCAKE to perform an audit of smart contracts:

https://bscscan.com/address/0xa92b1cdc86fcfcac705332f717008e8745bb2da3#code

#### The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

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

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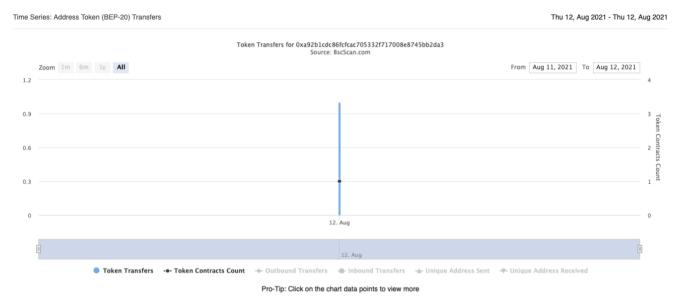
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# **Contracts Details**

#### Token contract details for 14.08.2021

Contract name	SHARKCAKE
Contract address	0xA92B1cdC86FCFcaC705332F717008e8745BB2Da3
Total supply	1,000,000,000,000
Token ticker	SCAKE
Decimals	9
Token holders	4
Transactions count	
Top 100 holders dominance	
Launched at	9959180
Auto liquidity receiver	0xa3e4bcdf69812db798b544fa6e14795085be4498
Marketing fee receiver	0xa3e4bcdf69812db798b544fa6e14795085be4498
Pair	0xef534dbd978d32e81aaa8ff837f9c7e0e6914486
Contract deployer address	0xa3e4bCDf69812DB798B544FA6e14795085Be4498
Contract's current owner address	0xa3e4bcdf69812db798b544fa6e14795085be4498

# SHARKCAKE Contract Interaction Details



# SHARKCAKE Top 10 Token Holders

Rank	Address	Quantity (Token)	Percent
1.	0xa3e4bcdf69812db798b544fa6e14795085be4498	940,000,000,000	94.00000%
2.	0xeaed594b5926a7d5fbbc61985390baaf936a6b8d	59,790,000,000	5.97900%
3.	0xaa3d85ad9d128dfecb55424085754f6dfa643eb1	180,600,000	0.01806%
4.	0xa92b1cdc86fcfcac705332f717008e8745bb2da3	29,400,000	0.00294%

### **Contract functions details**

- + [Int] IDEXRouter
- [Ext] factory
- [Ext] WETH
- [Ext] addLiquidity #
- [Ext] addLiquidityETH (\$)
- [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
- [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens (\$)
- [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #

#### + [Int] IBEP20

- [Ext] totalSupply
- [Ext] decimals
- [Ext] symbol
- [Ext] name
- [Ext] getOwner
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

#### + [Lib] SafeMath

- [Int] tryAdd
- [Int] trySub
- [Int] tryMul
- [Int] tryDiv
- [Int] tryMod
- [Int] add
- [Int] sub
- [Int] mul
- [Int] div
- [Int] mod
- [Int] sub
- [Int] div
- [Int] mod

#### + Auth

- [Pub] <Constructor> #
- [Pub] authorize #
  - modifiers: onlyOwner
- [Pub] unauthorize #
  - modifiers: onlyOwner
- [Pub] isOwner
- [Pub] isAuthorized
- [Pub] transferOwnership #
  - modifiers: onlyOwner

#### + [Int] IDEXFactory

- [Ext] createPair #
- + [Int] IDividendDistributor

```
- [Ext] setDistributionCriteria #
 - [Ext] setShare #
 - [Ext] deposit ($)
 - [Ext] process #
+ DividendDistributor (IDividendDistributor)
 - [Pub] <Constructor> #
 - [Ext] setDistributionCriteria #
   - modifiers: onlyToken
 - [Ext] setShare #
   - modifiers: onlyToken
 - [Ext] deposit ($)
   - modifiers: onlyToken
 - [Ext] process #
  - modifiers: onlyToken
 - [Int] shouldDistribute
 - [Int] distributeDividend#
 - [Ext] claimDividend #
 - [Pub] getUnpaidEarnings
 - [Int] getCumulativeDividends
 - [Int] addShareholder #
 - [Int] removeShareholder #
+ SHARKCAKE (IBEP20, Auth)
 - [Pub] <Constructor> #
   - modifiers: Auth
 - [Ext] <Fallback> ($)
 - [Ext] totalSupply
 - [Ext] decimals
 - [Ext] symbol
 - [Ext] name
 - [Ext] getOwner
 - [Pub] balanceOf
 - [Ext] allowance
 - [Pub] approve #
 - [Ext] approveMax #
 - [Ext] transfer #
 - [Ext] transferFrom #
 - [Int] _transferFrom #
 - [Int] _basicTransfer #
 - [Int] checkTxLimit
 - [Int] shouldTakeFee
 - [Pub] getTotalFee #
 - [Pub] getMultipliedFee #
 - [Int] takeFee #
 - [Int] shouldSwapBack
 - [Int] swapBack #
   - modifiers: swapping
 - [Int] shouldAutoBuyback
 - [Ext] triggerZeusBuyback #
   - modifiers: authorized
 - [Ext] clearBuybackMultiplier #
   - modifiers: authorized
 - [Int] triggerAutoBuyback #
 - [Int] buyTokens #
```

- modifiers: swapping
- [Ext] setAutoBuybackSettings #
  - modifiers: authorized
- [Ext] setBuybackMultiplierSettings #
  - modifiers: authorized
- [Int] launched
- [Pub] launch #
  - modifiers: authorized
- [Ext] setTxLimit#
  - modifiers: authorized
- [Ext] setIsDividendExempt#
  - modifiers: authorized
- [Ext] setIsFeeExempt #
  - modifiers: authorized
- [Ext] setIsTxLimitExempt #
  - modifiers: authorized
- [Ext] setFees #
  - modifiers: authorized
- [Ext] setFeeReceivers #
  - modifiers: authorized
- [Ext] setSwapBackSettings #
  - modifiers: authorized
- [Ext] setTargetLiquidity #
  - modifiers: authorized
- [Ext] setDistributionCriteria#
  - modifiers: authorized
- [Ext] setDistributorSettings #
  - modifiers: authorized
- [Pub] getCirculatingSupply
- [Pub] getLiquidityBacking
- [Pub] isOverLiquified
- (\$) = payable function
- # = non-constant function

# **Issues Checking Status**

	Issue description	Checking status
1.	Compiler errors.	Passed
2.	Race conditions and Reentrancy. Cross-function race conditions.	Passed
3.	Possible delays in data delivery.	Passed
4.	Oracle calls.	Passed
5.	Front running.	Passed
6.	Timestamp dependence.	Passed
7.	Integer Overflow and Underflow.	Passed
8.	DoS with Revert.	Passed
9.	DoS with block gas limit.	Passed
10.	Methods execution permissions.	Passed
11.	Economy model of the contract.	Passed
12.	The impact of the exchange rate on the logic.	Passed
13.	Private user data leaks.	Passed
14.	Malicious Event log.	Passed
15.	Scoping and Declarations.	Passed
16.	Uninitialized storage pointers.	Passed
17.	Arithmetic accuracy.	Passed
18.	Design Logic.	Passed
19.	Cross-function race conditions.	Passed
20.	Safe Open Zeppelin contracts implementation and usage.	Passed
21.	Fallback function security.	Passed

### **Security Issues**

High Severity Issues

No high severity issues found.

No medium severity issues found.

Low Severity Issues

No low severity issues found.

# Owner privileges (In the period when the owner is not renounced)

- Owner can call triggerZeusBuyback that's initiate buyback.
- Owner can clear buyback multiplier.
- Owner can change auto buyback settings.
- Owner can change buyback multiplier settings.
- Owner can change the maximum transaction amount.
- Owner can include in and exclude from dividends.
- Owner can include in and exclude from fee and transaction amount.
- Owner can change fees.
- Owner can change fee receivers.
- Owner can change swap threshold and disable/enable swap.
- Owner can change target liquidity values.
- Owner can change distribution criteria.
- Owner can change distribution GAS.

### Conclusion

Smart contracts do not contain high severity issues! Liquidity pair contract's security is not checked due to out of scope.

Liquidity locking details are NOT provided by the team.

#### TechRate note:

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.

