# **CERTIFICATE OF COMPLIANCE**

**Smart Contrat Audit** 

Hereby Proudly Presented to

# LARGE CHAIN

For complying with Blockchain Security Architecture

This certifica is only valid for Binance Smart Chain Contrat 0x76B7E29212A53166d358DaF2b227c3810Fe7FF70







# SMART CONTRACT SECURITY AUDIT OF

# (LRG) LARGE CHAIN

# **Audit Introduction**

Auditing Firm LARGE CHAIN PROTOCOL

**Audit Architecture** LARGE CHAIN Echelon Auditing Standard

**Language** Solidity

Client Firm LARGE CHAIN

**Website** <a href="https://largechain.net/">https://largechain.net/</a>

**Telegram** <a href="https://t.me/largechainn">https://t.me/largechainn</a>

**Twitter** <a href="https://twitter.com/lrgtokenn">https://twitter.com/lrgtokenn</a>

**Facebook** <a href="https://www.facebook.com/Largechain">https://www.facebook.com/Largechain</a>

Whitepaper <a href="https://largechain.net">https://largechain.net</a>

**Report Date** Dec 26. 2022

## **About LRG CHAIN**

**LARGE CHAIN WEB 3.0 PROTOCOL** 

Large Chain, (BinanceSmart Chain ile yaygınlaşan) blockchain tabanlı akıllı sözleşmelerle gerçek dünyauygulamaları arasında köprü vazifesi görmeyi hedefleyen bir platformdur. Blockchain'ler ağ dışındaki veriye erişim sağlayamadığı için, akıllı sözleşmelerde veri sağlayıcı olarak (WEB 3.0) ihtiyaç duyuluyor. LargeChain durumunda BinanceSmartChain ağına bağlı bulunuyor. ağın sağladığı (sıcaklık, hava durumu gibi) harici veri, önceden belirlenmiş koşullar gerçekleştiğinde akıllı sözleşmeleri tetikliyor sağlıyor.

# **Audit Summary**

large chain team has performed a line-by-line manual analysis and automated review of smart contracts. Smart contracts were analyzed mainly for common contract vulnerabilities, exploits, and manipulation hacks. According to the audit:

- LRG LARGE CHAIN solidity source code has **LOW RISK SEVERITY**
- LRG LARGE CHAIN smart contract has an ACTIVE OWNERSHIP
- LRG LARGE CHAIN centralization risk correlated to the active owner is
   MEDIUM
- Important owner privileges BURN, PAUSE, SET FEES, WITHDRAW

Be aware that smart contracts deployed on the blockchain aren't resistant to internal exploit, external vulnerability, or hack. For a detailed understanding of risk severity, source code vulnerability, exploitability, and audit disclaimer, kindly refer to the audit.

▼Contract address:

0x74014EF264E3a47989cA5E39deF5A17c0787cc34

Blockchain: Binance Smart Chain

✓ Verify the authenticity of this report on InterFi's GitHub:

https://github.com/LargeChain

# **Table Of Contents**

# **Audit Information**

# **Audit Scope**

InterFi was consulted by LARGE CHAIN to conduct the smart contract security audit of their solidity source codes. The audit scope of work isstrictly limited to the mentioned solidity file(s) only:

Irg.sol

# Solidity Source Code On GitHub

https://github.com/LargeCHAIN/LargeChainn

# SHA-1 Hash

Solidity source code is audited at hash # 0x6bd5a5105877f288d5bed14def26bbe841745f8dcd97d496e03f8b76e06a39b d

# **Audit Methodology**

The scope of this report is to audit the smart contract source code of LARGE CHAIN has scanned contracts and reviewed codes for common vulnerabilities, exploits, hacks, and backdoors. Due to being out of scope, LARGE CHAIN has not tested contracts on testnet to assess any functional flaws. Below is the list of commonly known smart contract vulnerabilities, exploits, and hacks:

## Category

### **Smart Contract Vulnerabilities**

- Re-entrancy
- Unhandled Exceptions
- · Transaction Order Dependency
- Integer Overflow
- Unrestricted Action
- Incorrect Inheritance Order
- Typographical Errors
- · Requirement Violation

### **Source Code Review**

- Gas Limit and Loops
- Deployment Consistency
- Repository Consistency
- Data Consistency
- Token Supply Manipulation
- Access Control and Authorization
- · Operations Trail and Event Generation
- Assets Manipulation
- Ownership Control
- Liquidity Access

# Large Chain Echelon Audit Standard

• The aim of Large Chain "Echelon" standard is to analyze smart contracts and identify the vulnerabilities and the hacks. Kindly note, large chain does not test smart contracts on testnet. It is recommended that smart contracts are thoroughly tested prior to the audit submission. Mentioned are the steps used by large chain to audit smart contracts:

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- Solidity smart contract source code reviewal:
- Review of the specifications, sources, and instructions provided to Large chain to make sure we understand the size, and scope of the smart contract audit.

- Manual review of code, which is the process of reading source code line – by-line to identify potential vulnerabilities.
- Static, Manual, and Software analysis:
- Test coverage analysis is the process of determining whether the test cases are covering the code and how much code is exercised when werun those test cases.
- Symbolic execution is analyzing a program to determine what inputs cause each part of a program to execute.
- Best practices review, which is a review of the smart contracts to improve efficiency, effectiveness, clarify, maintainability, security, and control based on the established industry and academic practices, recommendations, and research.
- Specific, itemized, actionable recommendations to help you take steps to secure your smart contracts
- Automated 3P frameworks used to assess the smart contract vulnerabilities Consensys Tools
- SWC Registry
- Solidity Coverage
- Open Zeppelin Code Analyzer
- Solidity Code Complier

# **Risk Classification**

Smart contracts are generally designed to manipulate and hold funds denominated in ETH/BNB. This makes them very tempting attack targets, as a successful attack may allow the attacker to directly steal funds from the contract. Below are the typical risk levels of a smart contract:

**Vulnerable**: A contract is vulnerable if it has been flagged by a static analysis tool as such. As we will see later, this means that some contracts may be vulnerable because of a false positive.

**Exploitable:** A contract is exploitable if it is vulnerable and the vulnerability could be exploited by an external attacker. For example, if the "vulnerability" flagged by a tool is in a function that requires owning the contract, it would be vulnerable but not exploitable.

**Exploited:** A contract is exploited if it received a transaction on the main network which triggered one of its vulnerabilities. Therefore, a contract can be vulnerable or even exploitable without having been exploited.

# Risk severity Meaning

This level vulnerabilities could be exploited easily and canlead to asset loss,

### ! Low

### ! Medium

### ! Low

### ! Informational

data loss, asset, or data manipulation. They should be fixed right away.

This level vulnerabilities are hard to exploit but very important to fix, they carry an elevated risk of smart contract manipulation, which can lead to high-risk severity

This level vulnerabilities should be fixed, as they carry an inherent risk of future exploits, and hacks which may or may not impact the smart contract execution.

This level vulnerabilities can be ignored. They are code style violations and informational statements in the code. They may not affect the smart contract execution

# **Centralization Risk**

Centralization risk is the most common cause of decentralized finance hacks. When a smart contract has an active contract ownership, the risk related to centralization is elevated. There are some well-intended reasons to be an active contract owner, such as:

Contract owner can be granted the power to pause() or lock()
 the contract in case of an external attack.

Contract owner can use functions like, include(),
 and exclude() to add or remove wallets from fees,
 swap checks, and transaction limits. This is useful to
 run a presale, and to list on an exchange.

Authorizing a full centralized power to a single body can be dangerous. Unfortunately, centralization related risks are higher than common smart

contract vulnerabilities. Centralization of ownership creates a risk of rug pull scams, where owners cash out tokens in such quantities that they become valueless. **Most important question to ask here is, how to mitigate centralization risk?** Here's InterFi's recommendation to lowerthe risks related to centralization hacks:

- Smart contract owner's private key must be carefully secured to avoid anypotential hack.
- Smart contract ownership should be shared by multisignature (multi-sig) wallets.
- Smart contract ownership can be locked in a contract, user voting, or community DAO can be introduced to unlock the ownership.

# **LRG LARGE CHAIN Centralization Status**

- LARGE CHAIN smart contract has an active ownership.
- Smart contract is **not deployed** on blockchain at the time of the audit.

# **Static Analysis**

# Function can modify state Function is payable Function is locked Function can be accessed !!mportant functionality

	L	1	add	1	Internal	1		1
	L	1	sub	1	Internal	1		1
-	L	1	mul	1	Internal	1		
-	L		div	1	Internal	1	1	
-	L		mod	1	Internal	1	1	
-	L		sub	1	Internal	1	1	
-	L	1	div	1	Internal	1		
	L		mod		Internal	1		
	111							
*	* <mark>Re</mark>	ent	rancy	γGτ	<mark>uard</mark> **   Impl	len	nenta	ation
	-	<coi< th=""><th>nstrı</th><th>ıct</th><th>or&gt;   Public</th><th>2</th><th>1</th><th>  NC</th></coi<>	nstrı	ıct	or>   Public	2	1	NC
111	111							
*	*IB	EP2	E**	1	Interface	$  \cdot  $		
<b>!!</b>	L	to	talS	up	ply   Extern	al	- 1	NO

!| L | decimals | External | | NO! |

!| L | symbol | External | | NO! |

‼| L | name | External | |NO |

!| L | getOwner | External | | NO! | !!| L | balanceOf | External | |NO |

!!| L | allowance | External | |NO |

‼| └ | approve | External | ● |NO

!!| L | transferFrom | External | | NO |

	**IPancakeswapV2Factory**   Interface
	L   feeTo   External    NO
1	L   feeToSetter   External    NO
1	L   getPair   External    NO
	L   allPairs   External    NO
I	L   allPairsLength   External     NO
	L   createPair   External   NO
I	L   setFeeTo   External   NO

| L | setFeeToSetter | External | NO

 $| \cdot |$ 

1111														
1	**	'IPa	ncak	eSwap\	/2Pair**	Inte	rfac	e					111	
1	L	l n	ame	Exte	ernal	N	10							
	L		syml	ool	External				NO		-			
	L		dec	imals	External				1	10		1		
	L		tota	totalSupply   External     NO							-			
-		L	balanceOf   External					NO	I	-				
		L		allowance   External     NO					I					

| L | approve | External | NO |

| L | transfer | External | NO |

| L | transferFrom | External | | NO |

| | NO | | L | DOMAIN SEPARATOR | External

PERMIT TYPEHASH | External | NO

	L	1	nonces   Ex	nonces   External    NO						
	L	1	permit   Ex	permit   External    NO						
	L	1	MINIMUM_LI	MINIMUM LIQUIDITY   External						
						]	NO	1		
	L	1	factory   I	External	NO					
! !   L	token0	Exterr	nal   NO							
L	tok	en1   E	xternal	NO						
L	l get	Reserve	s   External	I INO						
L			lativeLast	External	I INO		- 			
L			lativeLast	External	I INO		<u>'</u>			
L		st   Ex	i i	INO I	1 1 12.0		'			
L	l min		External	INO						
ı L	l bur	-	External	INO						
i L	swa		External	INO I						
i L	swa		External	INO						
i L	syn		External !	INO I						
	_	-	External	NO						
	-   IIIIC	.iaiize	External	NO						
		0444	T							
			Interface	I						
	factory									
			NO							
<b>!!</b>   <b>-</b>	addLiquid:	ıty   Ex	xternal	NO						
iil r l	removeLiq	uidity	External     External           External	NO	I					
<u> </u>   L   r	emoveLiqu:	idityWi	thPermit   Exter	rnal   🔴	NO !					
iil r l	removeLiqu	uidityE	THWithPermit   E	xternal	NO NO					
iil r l	swapExact:	TokensFo	orTokens   Exter	nal	NO					
	L		swapTokensForEx	actTokens	External				NO	1
1	L		swapExactETHFor	Tokens   Ext	ernal	1		NO		
- 1	L		swapTokensForEx			1		NO		
	. L		swapExactTokens	ForETH   Ext	ernal			NO	ı	
'	L		swapETHForExact	Tokens   Ext	ernal			NO		
	L		quote   Externa	1     NO						
L   ge   L   ge   L   ge 	etAmountIn etAmountsO etAmountsI	u   Exte but   Ex in   Ext		NO   O   ancakeRouter		rna	a l			NO
L   ro			WithPermitSuppo	rtingFeeOnTr	ansferTob					
L   re	moveLiqui		WithPermitSuppor	ctingFeeOnTr	ansferTok				1	NO
Extern	moveLiquio nal apExactTo	dityETH	WithPermitSupporting			ens		I	1	

L   swa	pExactETHForTokensSupportingFeeOnTransferTokens	I	NO	I
	upExactTokensForETHSupportingFeeOnTransferTokens	1	NO	1
External				
111111		<u> </u>		
1	**BrnMetaverse**   Implementation   Ownable,	111		
1	<pre>IBEP2E, ReentrancyGuard L   <constructor>   Public   NO  </constructor></pre>	+		
	L   paused   Public   NO			
1				
	,			
	L   decimals   Public   NO			
	L   totalSupply   Public   NO	-		
	L   getOwner   Public   NO			
	L   balanceOf   Public   NO			
ļ	L   transfer   Public     whenNotPaused	ļ		
	L   transferFrom   Public     whenNotPaused			
	L   allowance   Public   NO	+		
i	L   approve   Public     whenNotPaused	1		
<u>'</u>	L   increaseAllowance   Public			
'	whenNotPaused			
I	L   decreaseAllowance   Public			
1	whenNotPaused   L   burn   Public   onlyOwner			
ı	whenNotPaused			
I	L   pause   Public     onlyOwner   whenNotPaused			
I	L   unpause   Public     onlyOwner   whenPaused			
	eateLiquidityPoolPair   Public			
	yPairNotCreatedonlyOwner			
	RouterAddress   External     liquidityPairCre	ated	l onlyOv	wner
	LiquidityFee   External     onlyOwner			
	tLiquidityPoolBuyFee   External       onlyOwner			
	<mark>tLiquidityPoolSellFee</mark>	<u>-</u>		
	tEnabled   🔐   L   calculateLiquidityFee   Private 🔐		ı	
Swapisho	chiabled   •   -   Calculatellquidityree   riivate •	1 1	J	
L   cal	lculateTaxFee   Private			
	moveAllFee   Private 🔐   🛑     storeAllFee   Private 🔐   🛑			
	<pre><receive ether="">   External     NO   apAndLiquify   Private #  </receive></pre>			
	apAndLiquity   Private <b>                                    </b>			
	dLiquidity   Private			
1 - 1 au	whidererch   titage			
l L	removeLiquidity   Public     onlyOwner			
1	excludeFromReward   Public     onlyOwner			

1	L	1	includeI	nRewa	ard   Extern	al				
1	L	1	onlyOwne:	r   <mark>1</mark>	<mark>withdraw</mark>   E	ublic		1		
1	L	1	onlyOwne	r nor	nReentrant					
1	L	1	_getChair	nID	Private	1 1 1				
1	L	1	_transfe	r   1	Internal	1 1 1				
1	L	1	_takeLiq	uidit	ty   Private	1 1				
			_takeFee	Pi	rivate	1 1				
1	L	1	_transfe:	rToke	ens   Privat	e				
1	L	1	takeTaxes   Internal							
1	L	1	_getFeeAr	nount	:Values   Pr	ivate				
			L		1	_burn   Int	ernal	L	1 1	
			L	•	1	_approve	Inte	rnal	1 1	
			L		1	_burnFrom	Inte	ernal	1 1 1	
	1		L			_beforeToke	enTra	nsfer   I	nternal	
	I		L			_afterToker	nTran	sfer   In	ternal	I

# **Software Analysis**

# **Function Signatures**

39509351	=>	increaseAllowance(address,uint256)
75128141	=>	calculateTaxFee(uint256)
8da5cb5b	=>	owner()
53a72975	=>	_checkOwner()
715018a6	=>	renounceOwnership()
f2fde38b	=>	transferOwnership(address)
d29d44ee	=>	_transferOwnership(address)
884557bf	=>	tryAdd(uint256,uint256)
a29962b1	=>	trySub(uint256,uint256)
6281efa4	=>	tryMul(uint256,uint256)
736ecb18	=>	tryDiv(uint256,uint256)
38dc0867	=>	tryMod(uint256,uint256)
771602f7	=>	add(uint256, uint256)
b67d77c5	=>	sub(uint256,uint256)
c8a4ac9c	=>	mul(uint256, uint256)
a391c15b	=>	div(uint256, uint256)
f43f523a	=>	mod(uint256, uint256)
e31bdc0a	=>	sub(uint256,uint256,string)
b745d336	=>	div(uint256, uint256, string)
71af23e8	=>	mod(uint256, uint256, string)
18160ddd	=>	totalSupply()
313ce567	=>	decimals()
95d89b41	=>	symbol()
06fdde03	=>	name()
893d20e8	=>	getOwner()
70a08231	=>	balanceOf(address)

a9059cbb	=>	transfer(address,uint256)
dd62ed3e	=>	allowance(address,address)
095ea7b3	=>	approve(address, uint256)
23b872dd	=>	transferFrom(address,address,uint256)
017e7e58	=>	feeTo()
094b7415	=>	feeToSetter()
e6a43905	=>	getPair(address,address)
1e3dd18b	=>	allPairs(uint256)
574f2ba3	=>	allPairsLength()
c9c65396	=>	createPair(address,address)
f46901ed	=>	setFeeTo(address)
a2e74af6	=>	setFeeToSetter(address)
3644e515	=>	DOMAIN_SEPARATOR()
30adf81f	=>	PERMIT_TYPEHASH()
7ecebe00	=>	nonces (address)
d505accf	=>	permit(address, address, uint256, uint256, uint8, bytes32, bytes32)
ba9a7a56	=>	MINIMUM_LIQUIDITY()
c45a0155	=>	factory()
0dfe1681	=>	token0()

d21220a 7	= >	token1()
0902f1a c	= >	getReserves()
5909c0d 5	= >	price0CumulativeLast()
5a3d549 3	= >	pricelCumulativeLast()
7464fc3 d	>	kLast()
6a62784 2	= >	mint(address)
89afcb4 4	= >	burn (address)
022c0d9 f	= >	swap(uint256,uint256,address,bytes)
bc25cf7 7	= >	skim(address)
fff6cae 9	= >	sync()
485cc95 5	>	initialize(address,address)
ad5c464 8	= >	WETH()
e8e3370 0	= >	addLiquidity(address,address,uint256,uint256,uint256,uint256,address,uint256)
f305d71 9	= >	addLiquidityETH(address,uint256,uint256,uint256,address,uint256)
baa2abd e	= >	removeLiquidity(address,address,uint256,uint256,uint256,address,uint256)
02751ce c	= >	removeLiquidityETH(address,uint256,uint256,uint256,address,uint256)

```
2195995 = c >
```

```
removeLiquidityWithPermit(address, address, uint256, uint256, uint256, address, uint2
56
,bool, uint8, byte
s3 2, bytes32)
ded9382a =>
removeLiquidityETHWithPermit(address, uint256, uint256, uint256, address, uint25
6, bool, uint8, bytes32, byt es32)
38ed1739 =>
swapExactTokensForTokens(uint256, uint256, address) => swapTokensForExactTokens(uint256, uint256, uint25
```

054d50d4	=>	getAmountOut(uint256,uint256,uint256)
85f8c259	=>	getAmountIn(uint256,uint256,uint256)
d06ca61f	=>	<pre>getAmountsOut(uint256,address[])</pre>
1f00ca74	=>	<pre>getAmountsIn(uint256,address[])</pre>
af2979ah	=>	

```
4a25d94a =>
swapTokensForExactETH(uint256, uint256
,address[],address, uint256) 18cbafe5
=>
swapExactTokensForETH(uint256, uint256
,address[],address, uint256) fb3bdb41
=>
swapETHForExactTokens(uint256, address
[],address, uint256) ad615dec =>
quote(uint256, uint256, uint256)
```

removeLiquidityETHSupportingFeeOnTransferTokens(address, uint256, uint256, uint256, address, uint256) 5b0d5984 =>
removeLiquidityETHWithPermitSupportingFeeOnTransferTokens(address, uint256, uint256, address, u
int256, address, u
int256, bool, uint8, bytes32, bytes32)
5c11d795 =>
swapExactTokensForTokensSupportingFeeOnTransferTokens(uint256, uint256, address[], address, uint256) b6f9de95 =>
swapExactETHForTokensSupportingFeeOnTransferTokens(uint256, address[], address, uint256) 791ac947 =>

a457c2d7	=>	decreaseAllowance(address,uint256)
9dc29fac	=>	burn(address,uint256)
8456cb59	=>	pause()
3f4ba83a	=>	unpause()

4dc2fe46	=>	createLiquidityPoolPair()
41cb87fc	=>	setRouterAddress(address)

swapExactTokensForETHSupportingFeeOnTransferTokens(uint256,uint256,ad
dress[],address,uint256) 5c975abb => paused()

357bf15c	=>	setLiquidityFee(uint256)
6ea23a34	=>	setLiquidityPoolBuyFee(uint256)
3dd2e789	=>	setLiquidityPoolSellFee(uint256)
dc38a03f	=>	setSwapAndLiquifyEnabled()
cc126a23	=>	calculateLiquidityFee(uint256)
301370af	=>	removeAllFee()
e7e3e3a7	=>	restoreAllFee()
173865ad	=>	swapAndLiquify(uint256)
528689ea	=>	swapTokensForBnb(uint256)
9cd441da	=>	addLiquidity(uint256,uint256)
9c8f9f23	=>	removeLiquidity(uint256)
52390c02	=>	excludeFromReward(address)
3685d419	=>	includeInReward(address)
2e1a7d4d	=>	withdraw(uint256)
660a00ed	=>	_getChainID()
30e0789e	=>	_transfer(address,address,uint256)
c432df5e	=>	_takeLiquidity(uint256)
49026a97	=>	_takeFee(uint256)
20d6115d	=>	_transferTokens(address,address,uint256,bool)
aa0ffca5	=>	takeTaxes(address,address,uint256)
d4b80039	=>	_getFeeAmountValues(uint256)
6161eb18	=>	_burn(address,uint256)
104e81ff	=>	approve(address,address,uint256)
a22b35ce	=>	burnFrom(address,uint256)
cad3be83	=>	_beforeTokenTransfer(address,address,uint256)
8f811a1c	=>	afterTokenTransfer(address,address,uint256)

# **Inheritance Graph**

# **Manual Analysis**

# **Function**

**DescriptionAvailable Status** 

provides information about the total token

# **Total Supply**

### **Balance Of**

**Transfer** 

**Approve** 

**Allowance** 

Burn

**Dividend** 

Lock / Pause

### **Contract Fees**

supply

provides account balance of the owner's account executes transfers of a specified number of tokens to a specified address allow a spender to withdraw a set number of tokens from a specified accountreturns a set number of tokens from a spender to the owner

executes transfers of a specified number of tokens to a burn addressexecutes transfers of a specified dividend token to a specified address locks or pauses all or some function modules of the smart contract executes fee collection from swap events and/or transfer events

Yes	Passed
Yes	Passed
Transf	i <b>e</b>

### **Owners**

hip

### Renoun

се

executes transfer of contract ownership to a specified walletexecutes transfer of contract ownership to a

Yes **PassedOwnership** 

dead address

Yes **Passed** 

# **Notable Information**

• Smart contract owner can **pause or lock** the smart contract functionmodules.

```
function pause() public onlyOwner whenNotPaused {
 _paused = true;
function unpause() public onlyOwner whenPaused {
 paused = false;
```

• Smart contract owner can **burn** user assets.

Token allowancerequirements must be met to perform this transaction.

```
function burn(address _account, uint _amount) public onlyOwner
whenNotPausedreturns(bool){
  burn(account, amount);
```

 Smart contract utilizes safemath function to avoid common smartcontract vulnerabilities.

```
string private name = "BRNMETAVERSE";
library SafeMath {
function add(uint256 a, uint256 b) internal pure returns (uint256) {
    uint256 c = a + b;
    require(c >= a, "SafeMath: addition overflow");
function sub(uint256 a, uint256 b) internal pure returns (uint256) {
   return sub(a,
   b, "SafeMath:
   subtraction
   overflow");
   uint256 c = a
    * b;
   require(c / a == b, "SafeMath:
   multiplicatio
   n overflow");
    return c;
function div(uint256 a, uint256 b) internal pure returns (uint256) {
    return div(a, b, "SafeMath: division by zero");
function mod(uint256 a, uint256 b) internal pure returns (uint256) {
    return mod(a, b, "SafeMath: modulo by zero");
```

- Smart contract utilizes re-entrancy guard to prevent re-entrant calls to withdraw().
- Smart contract utilizes redundant code for

```
transferOwnership(). Ideal transfer ownership
```

code shouldlook be written like:

```
function transferOwnership(address newOwner)
    public virtual onlyOwner {
    require(newOwner != address(0), "Ownable:
    new owner is the zero address"); emit
    OwnershipTransferred(owner, newOwner);
```

```
_owner = newOwner;
```

Smart contract owner can change transaction

**fees**. This function module can be used to impose extraordinary fees. Noarbitrary limit set.

```
function setLiquidityFee(uint256
    _liquidityFee) <u>external</u>
   onlyOwner() {
    require(_liquidityFee !=
    0, "BEP2E: Feecannot be
    zero"); liquidityFee =
    _liquidityFee;
function
  setLiquidityPoolBuyFee(uint256
  fee) external onlyOwner{
  require(_fee != 0,"BEP2E:Fee
  cannot be zero");
  _buyFee = _fee;
function
  setLiquidityPoolSellFee(uint256
  fee) external onlyOwner{
 require(_fee != 0,"BEP2E:Fee
  cannot be zero");
```

 Smart contract has a low severity issue which may or may notcreate any functional vulnerability.

```
"severity": 8, (! Low Severity)
```

"Expected pragma, import directive or contract/interface/librarydefinition"

# **SWC Attacks**

SWC ID	Description	Status
SWC- 101	Integer Overflow and Underflow	Passed

SWC-	Outdated Compiler Version	! Informational
SWC-	Floating Pragma	Passed
SWC-	Unchecked Call Return Value	Passed
SWC-	Unprotected Ether Withdrawal	Passed
SWC- 106	Unprotected SELF- DESTRUCTInstruction	Passed
SWC- 107	Re-entrancy	Passed
SWC- 108	State Variable Default Visibility	Passed
SWC- 109	Uninitialized Storage Pointer	Passed
SWC- 110	Assert Violation	Passed
SWC- 111	Use of Deprecated Solidity Functions	Passed
SWC- 112	Delegate Call to Untrusted Callee	Passed
SWC- 113	DoS with Failed Call	Passed
SWC- 114	Transaction Order Dependence	Passed
SWC- 115	Authorization through tx.origin	Passed
SWC- 116	Block values as a proxy for time	Passed

SWC-117	Signature Malleability	Passed
---------	------------------------	--------

SWC-118	Incorrect Constructor Name	Passed
---------	----------------------------	--------

	,	
SWC-119	Shadowing State Variables	Passed
SWC-120	Weak Sources of Randomness from Chain	Passed
	Attributes	
SWC-121	Missian Dustantian analyst Cinnetons Danley	Passed
3WC-121	Missing Protection against Signature Replay	rasseu
	Attacks	
SWC-122	Lack of Proper Signature Verification	Passed
SWC-123	Doguiroment Violation	Passed
	Requirement Violation	
SWC-124	Write to Arbitrary Storage Location	Passed
SWC-125	Incorrect Inheritance Order	Passed
SWC-126	Insufficient Gas Griefing	Passed
SWC-127	Arbitrary Jump with Function Type Variable	Passed
SWC-128	DoS With Block Gas Limit	Passed
SWC-129	Typographical Error	Passed
SWC-130	Right-To-Left-Override control	Passed
	character(U+202E)	
SWC-131	Presence of unused variables	Passed
SWC-132	Unexpected Ether balance	Passed
SWC-133	Hash Collisions With Multiple Variable	Passed
	LengthArguments	
SWC-134	Message call with the hardcoded gas amount	Passed
SWC-135	Code With No Effects (Irrelevant/Dead Code)	!

		Informational
SWC-136	Unencrypted Private Data On-Chain	Passed

# **Risk Status & Radar Chart**

Risk Severity	Status
Passed	No high severity issues identified
Medium	No medium severity issues identified
Low	2 low severity
issues identified	
Informational 2	
informational severity	
issues identified	

**Centralization Risk** 

Active contract ownership

identified

### Score out of 100

Compiler Check

100

95

90

85

80

75

Static Analysis

Manual Analysis

Software Analysis

# **Auditor's Verdict**

InterFi team has performed a line-by-line manual analysis and automated review of smart contracts. Smart contracts were analyzed mainly for common contract vulnerabilities, exploits, and manipulation hacks. According to the audit:

- LARGE CHAIN solidity source code has LOW RISK SEVERITY
- LARGE CHAIN smart contract has an **ACTIVE OWNERSHIP**
- LARGE CHAIN centralization risk correlated to the active owner is

### **MEDIUM**

# Note for stakehold ers

- Be aware that active smart contract owner privileges constitute an elevated impact on smart contract safety and security.
- If the smart contract is not deployed on any blockchain at the time of the audit, the contract can be modified or altered before blockchain development. Verify contract's deployment status in the audit report.
- Make sure that the project team's KYC/identity is verified by an independent firm.
- Always check if the contract's liquidity is locked. A
  longer liquidity lock plays an important role in the
  project's longevity. It is recommended to have
  multiple liquidity providers.

 Examine the unlocked token supply in the owner, developer, or team's private wallets. Understand the project's tokenomics, and make sure the tokens outside of the LP Pair are vested or locked for a longer period.

# **Important Disclaimer**

LARGE CHAIN provides contract development, testing, auditing and project evaluation services for blockchain projects. The purpose of the audit is to analyze the on-chain smart contract source code and to provide a basic overview of the project. This report should not be transmitted, disclosed, referred to, or relied upon by any person for any purpose without InterFi's prior written consent.

LARGE CHAIN provides the easy-to-understand assessment of the project, and the smart contract (otherwise known as the source code).

The audit makes no statements or warranties on the security of the code. It also cannot be considered as enough assessment regarding the utility and safety of the code, bug-free status, or any other statements of the contract. While we have used all the data at our disposal to provide the transparent analysis, it is important to note that you should not rely on this report only — we recommend

proceeding with several independent audits and a public bug bounty program to ensure the security of smart contracts. Be aware that smart contracts deployed on a blockchain aren't resistant to external vulnerability, or a hack. Be aware that active smart contract owner privileges constitute an elevated impact on smart contract safety and security. Therefore, InterFi does not guarantee the explicit security of the audited smart contract.

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

This report should not be considered as an endorsement or disapproval of any project or team.

The information provided in this report does not constitute investment advice, financial advice, trading advice, or any other sort of advice and you should not treat any of the report's content as such. Do conduct your due diligence and consult your financial advisor before making any investment decisions.

# **About LARGE CHAIN PROTOCOL**

LARGE CHAIN provides intelligent blockchain solutions. LARGE CHAIN is developing an ecosystem that is seamless and responsive. Some of our services: Blockchain Security, Token Launchpad, NFT Marketplace, etc. LARGE CHAIN mission is to interconnect multiple services like Blockchain Security, DeFi, Gaming, and Marketplace under one ecosystem that is seamless, multi-chain compatible, scalable, secure, fast, responsive, and easy to use.

InterFi is built by a decentralized team of UI experts, contributors, engineers, and enthusiasts from all over the world. Our team currently consists of 6+ core team members, and 10+ casual contributors. LARGE CHAIN provides manual, static, and automatic smart contract analysis, to ensure that project is checked against known attacksand potential vulnerabilities.

To learn more, visit https://largechain.net/

To view our audit portfolio, visit <a href="https://github.com/LargeChain">https://github.com/LargeChain</a>

To book an audit, message https://t.me/largechainn

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