



Audit Report

Fairy Forest

January 2022

Type BEP20

Network BSC

Address 0x605aa8decdd9414069644f3bcf8bad556a3733a8

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Contract Review

Contract Name	BEP20Token
Compiler Version	v0.5.16+commit.9c3226ce
Optimization	200 runs
Licence	MIT
Explorer	https://bscscan.com/token/0x605aa8decdd9414069644f3bcf8bad556a3733a8
Symbol	FFN
Decimals	18
Total Supply	500,000,000
Source	contract.sol
Domain	fairyforest.su

Audit Updates

Initial Audit	31st January 2022
Corrected	

Contract Analysis

● Critical
 ● Medium
 ● Minor
 ● Pass

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
●	BT	Contract Owner is not able to burn tokens from specific wallet
●	BC	Contract Owner is not able to blacklist wallets from selling

MT - Mint Tokens

Criticality	critical
Location	contract.sol#L497

Description

The contract owner has the authority to mint tokens. The owner may take advantage of it by calling the `mint` function. As a result the contract tokens will be highly inflated

```
function mint(uint256 amount) public onlyOwner returns (bool) {  
    _mint(_msgSender(), amount);  
    return true;  
}
```

Recommendation

The owner should carefully manage the credentials of the owner's account. We advised considering an extra-strong security mechanism that the actions may be quarantined by many users instead of one. The owner could also renounce the contract ownership for a period of time or pass the access to the zero address.

Contract Diagnostics

● Critical ● Medium ● Minor

Severity	Code	Description
●	L01	Public Function could be Declared External
●	L09	Dead Code Elimination

L01 - Public Function could be Declared External

Criticality	minor
Location	contract.sol#L497,L484,L465 and 2 more

Description

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

```
mint
decreaseAllowance
increaseAllowance
...
```

Recommendation

Use the external attribute for functions never called from the contract

L09 - Dead Code Elimination

Criticality

minor

Location

contract.sol#L158,L187,L262 and 6 more

Description

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

```
sub  
mul  
mod  
...
```

Recommendation

Remove unused functions.

Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
IBEP20	Interface			
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
Context	Implementation			
	<Constructor>	Internal	✓	
	_msgSender	Internal		
	_msgData	Internal		
SafeMath	Library			
	add	Internal		
	sub	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	div	Internal		
	mod	Internal		
	mod	Internal		
Ownable	Implementation	Context		
	<Constructor>	Internal	✓	

	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	_transferOwnership	Internal	✓	
BEP20Token	Implementation	Context, IBEP20, Ownable		
	<Constructor>	Public	✓	-
	getOwner	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
	increaseAllowance	Public	✓	-
	decreaseAllowance	Public	✓	-
	mint	Public	✓	onlyOwner
	_transfer	Internal	✓	
	_mint	Internal	✓	
	_burn	Internal	✓	
	_approve	Internal	✓	
	_burnFrom	Internal	✓	

Contract Flow



Domain Info

Domain Name	fairyforest.su
Registry Domain ID	
Creation Date	2022-01-02T12:40:09Z
Updated Date	2023-01-02T12:40:09Z
Registry Expiry Date	2023-02-04
Registrar WHOIS Server	
Registrar URL	
Registrar	REGRU-SU
Registrar IANA ID	

The domain has been created one month before the creation of the audit.

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

Summary

Fairy Forest is aiming to build an NFT game based on a web browser. The Project has a friendly and growing community. The Smart Contract analysis reported one issue. The contract Owner can mint tokens. If this functionality is abused by the contract owner, it may highly inflate the token's balance. Apart from this, there are not any functions that can be abused by the owner to interrupt the user's transactions. A multi-wallet signing pattern will provide security against potential hacks. Temporarily locking the contract or renouncing ownership will eliminate all the contract threats.

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The Coinscope team disclaims any liability for the resulting losses.

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>