



Cyberscope

Audit Report

Babyverse

June 2022

Type BEP20

Network BSC

Address 0x846B22aeB585C6174Bc40755f9187a58d164241c

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Table of Contents

Table of Contents	1
Contract Review	3
Source Files	3
Audit Updates	3
Contract Analysis	4
ULTW - Unlimited Liquidity to Team Wallet	5
Description	5
Recommendation	5
Contract Diagnostics	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
L04 - Conformance to Solidity Naming Conventions	9
Description	9
Recommendation	9
L05 - Unused State Variable	10
Description	10
Recommendation	10
Contract Functions	11
Contract Flow	14
Domain Info	15
Summary	16
Disclaimer	17

Contract Review

Contract Name	BABYVERSE
Compiler Version	v0.8.7+commit.e28d00a7
Optimization	200 runs
Licence	Unlicense
Explorer	https://bscscan.com/token/0x846b22aeb585c6174bc40755f9187a58d164241c
Symbol	BBV
Decimals	9
Total Supply	100,000,000,000,000,000
Domain	babyverse.space

Source Files

Filename	SHA256
contract.sol	4e3ee9912695f4276b7ed8209fb1da0bf64348731ce167d3f4c6d9a295116830

Audit Updates

Initial Audit	11th June 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

ULTW - Unlimited Liquidity to Team Wallet

Criticality	minor
Location	contract.sol#L388

Description

The developer and marketing addresses have the authority to transfer funds without limit to the team wallet. These funds have been accumulated from fees collected from the contract. The owner may take advantage of it by calling the `manualswap` and `manualsend` methods.

```
function manualswap() external {
    require(_msgSender() == _developmentAddress || _msgSender() ==
    _marketingAddress || _msgSender() == owner());
    uint256 contractBalance = balanceOf(address(this));
    swapTokensForEth(contractBalance);
}

function manualsend() external {
    require(_msgSender() == _developmentAddress || _msgSender() ==
    _marketingAddress || _msgSender() == owner());
    uint256 contractETHBalance = address(this).balance;
    sendETHToFee(contractETHBalance);
}
```

Recommendation

The contract could embody a check for the maximum amount of funds that can be swapped. Since a huge amount may volatile the token's price.

The team should carefully manage the private keys of the owner's account. We strongly recommend a powerful security mechanism that will prevent a single user from accessing the contract admin functions. That risk can be prevented by temporarily locking the contract or renouncing ownership.

Contract Diagnostics

● Critical ● Medium ● Minor

Severity	Code	Description
●	L01	Public Function could be Declared External
●	L02	State Variables could be Declared Constant
●	L04	Conformance to Solidity Naming Conventions
●	L05	Unused State Variable

L01 - Public Function could be Declared External

Criticality	minor
Location	contract.sol#L123,129,197,201,205,209,217,222,226,231,313,319,326,400,411,415

Description

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

```
excludeMultipleAccountsFromFees
toggleSwap
setFee
setNewMarketingAddress
setNewDevAddress
rescueForeignTokens
transferFrom
approve
allowance
...
```

Recommendation

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

L02 - State Variables could be Declared Constant

Criticality

minor

Location

contract.sol#L106

Description

Constant state variables should be declared constant to save gas.

```
_previousOwner
```

Recommendation

Add the constant attribute to state variables that never change.

L04 - Conformance to Solidity Naming Conventions

Criticality

minor

Location

contract.sol#L47,312,318,325,313,411,145,158,159,160

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.

```
_decimals  
_symbol  
_name  
_tTotal  
_swapEnabled  
_amount  
_to  
_tokenAddr  
marketingAddressUpdated  
...
```

Recommendation

Follow the Solidity naming convention.

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

L05 - Unused State Variable

Criticality

minor

Location

contract.sol#L106,140

Description

There are segments that contain unused state variables.

```
_tOwned  
_previousOwner
```

Recommendation

Remove unused state variables.

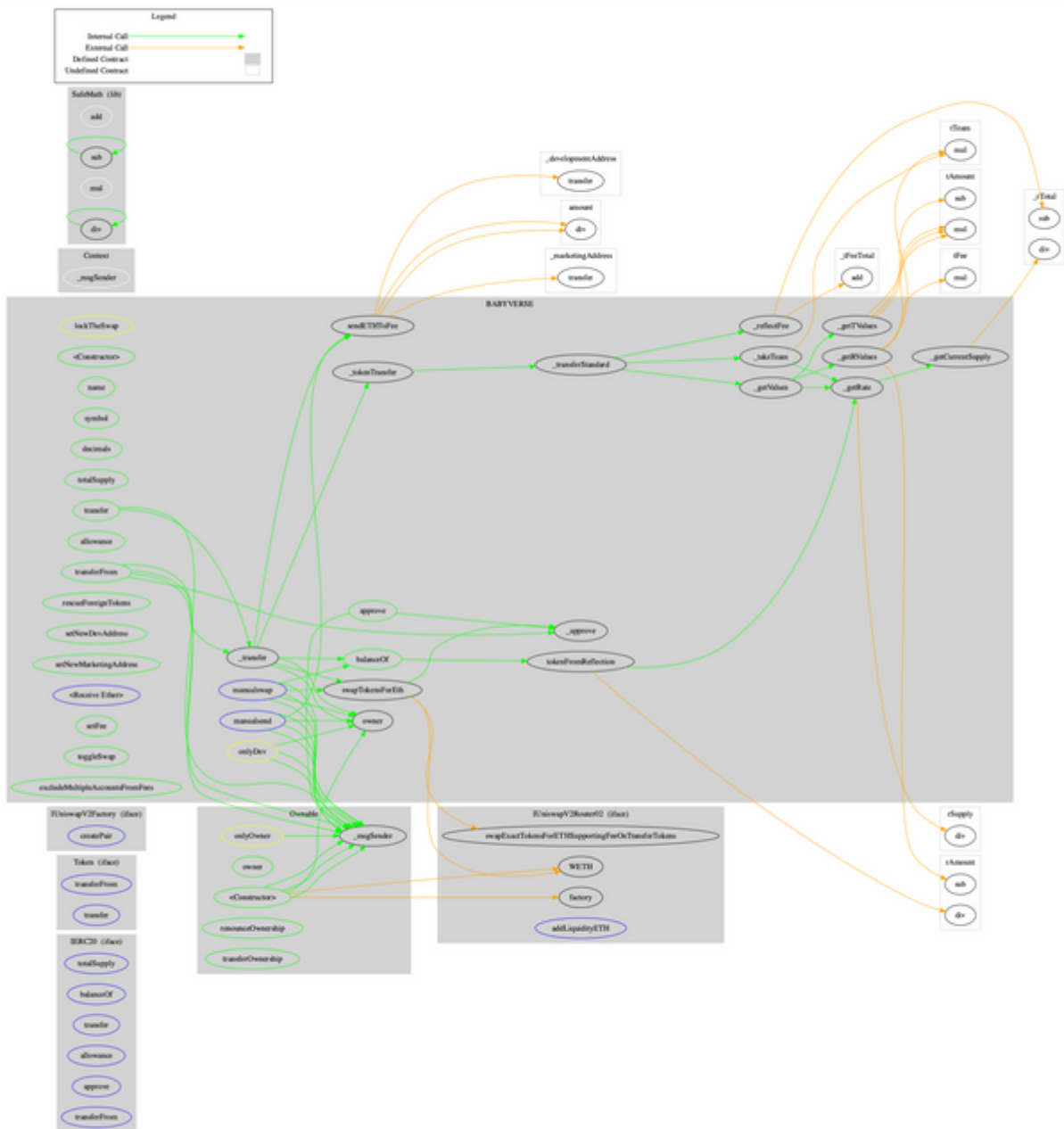
Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
IERC20	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
Token	Interface			
	transferFrom	External	✓	-
	transfer	External	✓	-
IUniswapV2Factory	Interface			
	createPair	External	✓	-
IUniswapV2Router02	Interface			
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
	factory	External		-
	WETH	External		-
	addLiquidityETH	External	Payable	-
Context	Implementation			
	_msgSender	Internal		
SafeMath	Library			
	add	Internal		
	sub	Internal		

	sub	Internal		
	mul	Internal		
	div	Internal		
	div	Internal		
Ownable	Implementation	Context		
	<Constructor>	Public	✓	-
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
BABYVERSE	Implementation	Context, IERC20, Ownable		
	<Constructor>	Public	✓	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	tokenFromReflection	Private		
	_approve	Private	✓	
	_transfer	Private	✓	
	swapTokensForEth	Private	✓	lockTheSwap
	sendETHToFee	Private	✓	
	_tokenTransfer	Private	✓	
	rescueForeignTokens	Public	✓	onlyDev
	setNewDevAddress	Public	✓	onlyDev
	setNewMarketingAddress	Public	✓	onlyDev
	_transferStandard	Private	✓	
	_takeTeam	Private	✓	
	_reflectFee	Private	✓	

	<Receive Ether>	External	Payable	-
	_getValues	Private		
	_getTValues	Private		
	_getRValues	Private		
	_getRate	Private		
	_getCurrentSupply	Private		
	manualswap	External	✓	-
	manualsend	External	✓	-
	setFee	Public	✓	onlyDev
	toggleSwap	Public	✓	onlyDev
	excludeMultipleAccountsFromFees	Public	✓	onlyOwner

Contract Flow



Domain Info

Domain Name	babyverse.space
Registry Domain ID	D278544327-CNIC
Creation Date	2022-02-27T10:44:52.0Z
Updated Date	2022-04-13T15:12:12.0Z
Registry Expiry Date	2023-02-27T23:59:59.0Z
Registrar WHOIS Server	whois.godaddy.com
Registrar URL	https://www.godaddy.com/
Registrar	Go Daddy, LLC
Registrar IANA ID	146

The domain has been created 3 months before the creation of the audit. It will expire in 9 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. The contract contains two addresses that can manipulate the configuration, the developer and marketing addresses. A multi-wallet signing pattern for all the addresses will provide security against potential hacks. Temporarily locking the contract or renouncing ownership for the all addresses will eliminate all the contract threats. There is also a limit of max 9% fees.

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About Cyberscope

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

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.

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>