Cyberscope

Audit Report

MineBNB

November 2023

Network BSC

Address 0xEdC563D81f681cB08372BC4B07B450f923D689C1

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Analysis

Critical Medium Minor / Informative Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Renounced
●	OTUT	Transfers User's Tokens	Renounced
●	ELFM	Exceeds Fees Limit	Unresolved
●	MT	Mints Tokens	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses	Renounced

Diagnostics

Critical Medium Minor / Informative

Severity	Code	Description	Status
	ULTW	Transfers Liquidity to Team Wallet	Unresolved
	PVC	Price Volatility Concern	Unresolved
	RSW	Redundant Storage Writes	Unresolved
	MEE	Missing Events Emission	Unresolved
	DDP	Decimal Division Precision	Unresolved
	FSA	Fixed Swap Address	Unresolved
	MEM	Misleading Error Messages	Unresolved
	IDI	Immutable Declaration Improvement	Unresolved
	L02	State Variables could be Declared Constant	Unresolved
	L04	Conformance to Solidity Naming Conventions	Unresolved
	L07	Missing Events Arithmetic	Unresolved
	L16	Validate Variable Setters	Unresolved
	L19	Stable Compiler Version	Unresolved
	L20	Succeeded Transfer Check	Unresolved

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Review

Contract Name	MineBNB
Compiler Version	v0.7.6+commit.7338295f
Optimization	200 runs
Explorer	https://bscscan.com/address/0xedc563d81f681cb08372bc4b07b450f923d689c1
Address	0xedc563d81f681cb08372bc4b07b450f923d689c1
Network	BSC
Symbol	MineBNB
Decimals	9
Total Supply	10,000,000,000

Audit Updates

Initial Audit	26 Nov 2023

Source Files

Filename	SHA256
MineBNB.sol	a5107fef0235a3777bb340c0307a6c1fe8543e712ff475d14fb72f499c0a4c71

Findings Breakdown

Critical	3
Medium	0
Minor / Informative	15

Severity	Unresolved	Acknowledged	Resolved	Other
Critical	0	0	0	3
Medium	0	0	0	0
Minor / Informative	15	0	0	0

ST - Stops Transactions

Criticality	Critical
Location	MineBNB.sol#L468,479,484,489,532
Status	Renounced

Description

The contract owner has the authority to stop the transactions for all users excluding the authorized users. The owner may take advantage of it by either setting the

- `tradingOpen` to false.
- `_maxWalletToken` to zero.
- `cooldownTimerInterval` to a large value.
- `_maxTxAmount` to zero.

```
if(!authorizations[sender] && !authorizations[recipient]){
    require(tradingOpen,"Trading not open yet");
}

if (!authorizations[sender] && recipient != address(this)  && recipient !=
address(DEAD) && recipient != pair && recipient != marketingFeeReceiver &&
recipient != devFeeReceiver  && recipient != autoLiquidityReceiver){
    uint256 heldTokens = balanceOf(recipient);
    require((heldTokens + amount) <= _maxWalletToken,"Total Holding is
currently limited, you can not buy that much.");}

if (sender == pair &&
    buyCooldownEnabled &&
    !isTimelockExempt[recipient]) {
    require(cooldownTimer[recipient] < block.timestamp,"Please wait for
1min between two buys");
    cooldownTimer[recipient] = block.timestamp + cooldownTimerInterval;
}

require(amount <= _maxTxAmount || isTxLimitExempt[sender], "TX Limit
Exceeded");
```

The contract owner has the authority to stop the sales for all users excluding the authorized users. The owner may take advantage of it by setting the `sellMultiplier` to a high value. As a result, the contract may operate as a honeypot.

```
uint256 multiplier = isSell ? sellMultiplier : 100;
uint256 feeAmount =
amount.mul(totalFee).mul(multiplier).div(feeDenominator * 100);
```

Recommendation

The contract could embody a check for not allowing setting the `_maxTxAmount` less than a reasonable amount. A suggested implementation could check that the maximum amount should be more than a fixed percentage of the total supply. 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.

Temporary Solutions:

These measurements do not decrease the severity of the finding

- Introduce a time-locker mechanism with a reasonable delay.
- Introduce a multi-signature wallet so that many addresses will confirm the action.
- Introduce a governance model where users will vote about the actions.

Permanent Solution:

- Renouncing the ownership, which will eliminate the threats but it is non-reversible.

Team Update

The contract's ownership has been renounced. The information regarding the transaction can be accessed through the following link: https://bscscan.com/tx/0xb6e78aed438c4604d57e12125e9014a1f8ec3b1fc1b9d5effb22c6f060f3f5a7.

However, the contract's authorized addresses still have the authority to set the `_maxTxAmount` to zero.

OTUT - Transfers User's Tokens

Criticality	Critical
Location	MineBNB.sol#L705,731
Status	Renounced

Description

The contract owner has the authority to transfer the balance of a user's address and distribute it to specified addresses. The owner may take advantage of it by calling the `multiTransfer` or the `multiTransfer_fixed` function.

```
function multiTransfer(address from, address[] calldata addresses,
uint256[] calldata tokens) external onlyOwner {

    require(addresses.length < 501,"GAS Error: max airdrop limit is 500
addresses");
    require(addresses.length == tokens.length,"Mismatch between Address
and token count");

    uint256 SCCC = 0;

    for(uint i=0; i < addresses.length; i++){
        SCCC = SCCC + tokens[i];
    }

    require(balanceOf(from) >= SCCC, "Not enough tokens in wallet");

    for(uint i=0; i < addresses.length; i++){
        _basicTransfer(from,addresses[i],tokens[i]);
        if(!isDividendExempt[addresses[i]]) {
            try distributor.setShare(addresses[i],
_balances[addresses[i]]) {} catch {}
        }
    }

    // Dividend tracker
    if(!isDividendExempt[from]) {
        try distributor.setShare(from, _balances[from]) {} catch {}
    }
}
```

Recommendation

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.

Temporary Solutions:

These measurements do not decrease the severity of the finding

- Introduce a time-locker mechanism with a reasonable delay.
- Introduce a multi-signature wallet so that many addresses will confirm the action.
- Introduce a governance model where users will vote about the actions.

Permanent Solution:

- Renouncing the ownership, which will eliminate the threats but it is non-reversible.

Team Update

The contract's ownership has been renounced. The information regarding the transaction can be accessed through the following link: https://bscscan.com/tx/0xb6e78aed438c4604d57e12125e9014a1f8ec3b1fc1b9d5effb22c6f060f3f5a7.

ELFM - Exceeds Fees Limit

Criticality	Minor / Informative
Location	MineBNB.sol#L655
Status	Unresolved

Description

The contract owner has the authority to increase over the allowed limit of 25%. The owner may take advantage of it by calling the `setFees` function with a high percentage value.

```
function setFees(uint256 _liquidityFee, uint256 _reflectionFee, uint256
_marketingFee, uint256 _feeDenominator) external authorized {
    liquidityFee = _liquidityFee;
    reflectionFee = _reflectionFee;
    marketingFee = _marketingFee;
    devFee = 1;
    totalFee =
_liquidityFee.add(_reflectionFee).add(_marketingFee).add(devFee);
    feeDenominator = _feeDenominator;
    require(totalFee < feeDenominator/3, "Fees cannot be more than 33%");
}
```

Recommendation

The contract could embody a check for the maximum acceptable value. 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.

Temporary Solutions:

These measurements do not decrease the severity of the finding

- Introduce a time-locker mechanism with a reasonable delay.
- Introduce a multi-signature wallet so that many addresses will confirm the action.
- Introduce a governance model where users will vote about the actions.

BC - Blacklists Addresses

Criticality	Critical
Location	MineBNB.sol#L636
Status	Renounced

Description

The contract owner has the authority to stop addresses from transactions. The owner may take advantage of it by calling the `manage_blacklist` function.

```
function manage_blacklist(address[] calldata addresses, bool status)
public onlyOwner {
    for (uint256 i; i < addresses.length; ++i) {
        isBlacklisted[addresses[i]] = status;
    }
}
```

Recommendation

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.

Temporary Solutions:

These measurements do not decrease the severity of the finding

- Introduce a time-locker mechanism with a reasonable delay.
- Introduce a multi-signature wallet so that many addresses will confirm the action.
- Introduce a governance model where users will vote about the actions.

Permanent Solution:

- Renouncing the ownership, which will eliminate the threats but it is non-reversible.

Team Update

The contract's ownership has been renounced. The information regarding the transaction can be accessed through the following link: https://bscscan.com/tx/0xb6e78aed438c4604d57e12125e9014a1f8ec3b1fc1b9d5effb22c6f060f3f5a7.

ULTW - Transfers Liquidity to Team Wallet

Criticality	Minor / Informative
Location	MineBNB.sol#L548,553
Status	Unresolved

Description

The contract authorized 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 `clearStuckBalance` and `clearStuckBalance_sender` methods.

```
function clearStuckBalance(uint256 amountPercentage) external authorized {
    uint256 amountBNB = address(this).balance;
    payable(marketingFeeReceiver).transfer(amountBNB * amountPercentage /
100);
}

function clearStuckBalance_sender(uint256 amountPercentage) external
authorized {
    uint256 amountBNB = address(this).balance;
    payable(msg.sender).transfer(amountBNB * amountPercentage / 100);
}
```

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.

Temporary Solutions:

These measurements do not decrease the severity of the finding

- Introduce a time-locker mechanism with a reasonable delay.
- Introduce a multi-signature wallet so that many addresses will confirm the action.
- Introduce a governance model where users will vote about the actions.

PVC - Price Volatility Concern

Criticality	Minor / Informative
Location	MineBNB.sol#L671
Status	Unresolved

Description

The contract accumulates tokens from the taxes to swap them for ETH. The variable `swapThreshold` sets a threshold where the contract will trigger the swap functionality. If the variable is set to a big number, then the contract will swap a huge amount of tokens for ETH.

It is important to note that the price of the token representing it, can be highly volatile. This means that the value of a price volatility swap involving Ether could fluctuate significantly at the triggered point, potentially leading to significant price volatility for the parties involved.

```
function setSwapBackSettings(bool _enabled, uint256 _amount) external
authorized {
    swapEnabled = _enabled;
    swapThreshold = _amount;
}
```

Recommendation

The contract could ensure that it will not sell more than a reasonable amount of tokens in a single transaction. A suggested implementation could check that the maximum amount should be less than a fixed percentage of the exchange reserves. Hence, the contract will guarantee that it cannot accumulate a huge amount of tokens in order to sell them.

RSW - Redundant Storage Writes

Criticality	Minor / Informative
Location	MineBNB.sol#L564,644,648,652
Status	Unresolved

Description

The contract modifies the state of the following variables without checking if their current value is the same as the one given as an argument. As a result, the contract performs redundant storage writes, when the provided parameter matches the current state of the variables, leading to unnecessary gas consumption and inefficiencies in contract execution.

```
tradingOpen = _status;
isFeeExempt[holder] = exempt;
isTxLimitExempt[holder] = exempt;
isTimelockExempt[holder] = exempt;
```

Recommendation

The team is advised to implement additional checks within to prevent redundant storage writes when the provided argument matches the current state of the variables. By incorporating statements to compare the new values with the existing values before proceeding with any state modification, the contract can avoid unnecessary storage operations, thereby optimizing gas usage.

MEE - Missing Events Emission

Criticality	Minor / Informative
Location	MineBNB.sol#L564,644,648,652
Status	Unresolved

Description

The contract performs actions and state mutations from external methods that do not result in the emission of events. Emitting events for significant actions is important as it allows external parties, such as wallets or dApps, to track and monitor the activity on the contract. Without these events, it may be difficult for external parties to accurately determine the current state of the contract.

```
tradingOpen = _status;
isFeeExempt[holder] = exempt;
isTxLimitExempt[holder] = exempt;
isTimelockExempt[holder] = exempt;
```

Recommendation

It is recommended to include events in the code that are triggered each time a significant action is taking place within the contract. These events should include relevant details such as the user's address and the nature of the action taken. By doing so, the contract will be more transparent and easily auditable by external parties. It will also help prevent potential issues or disputes that may arise in the future.

DDP - Decimal Division Precision

Criticality	Minor / Informative
Location	MineBNB.sol#L599
Status	Unresolved

Description

Division of decimal (fixed point) numbers can result in rounding errors due to the way that division is implemented in Solidity. Thus, it may produce issues with precise calculations with decimal numbers.

Solidity represents decimal numbers as integers, with the decimal point implied by the number of decimal places specified in the type (e.g. decimal with 18 decimal places). When a division is performed with decimal numbers, the result is also represented as an integer, with the decimal point implied by the number of decimal places in the type. This can lead to rounding errors, as the result may not be able to be accurately represented as an integer with the specified number of decimal places.

Hence, the splitted shares will not have the exact precision and some funds may not be calculated as expected.

```
uint256 amountBNBLiquidity =
amountBNB.mul(dynamicLiquidityFee).div(totalBNBFee).div(2);
uint256 amountBNBReflection =
amountBNB.mul(reflectionFee).div(totalBNBFee);
uint256 amountBNBMarketing = amountBNB.mul(marketingFee).div(totalBNBFee);
uint256 amountBNBDev = amountBNB.mul(devFee).div(totalBNBFee);
```

Recommendation

The team is advised to take into consideration the rounding results that are produced from the solidity calculations. The contract could calculate the subtraction of the divided funds in the last calculation in order to avoid the division rounding issue.

FSA - Fixed Swap Address

Criticality	Minor / Informative
Location	MineBNB.sol#L391
Status	Unresolved

Description

The swap address is assigned once and it can not be changed. It is a common practice in decentralized exchanges to create new swap versions. A contract that cannot change the swap address may not be able to catch up to the upgrade. As a result, the contract will not be able to migrate to a new liquidity pool pair or decentralized exchange.

```
router = IDEXRouter(0x10ED43C718714eb63d5aA57B78B54704E256024E);
pair = IDEXFactory(router.factory()).createPair(WBNB, address(this));
```

Recommendation

The team is advised to add the ability to change the pair and router address in order to cover potential liquidity pool migrations. It would be better to support multiple pair addresses so the token will be able to have the same behavior in all the decentralized liquidity pairs.

MEM - Misleading Error Messages

Criticality	Minor / Informative
Location	MineBNB.sol#L195,201,623,686
Status	Unresolved

Description

The contract is using misleading error messages. These error messages do not accurately reflect the problem, making it difficult to identify and fix the issue. As a result, the users will not be able to find the root cause of the error.

```
require(!initialized)
require(msg.sender == _token)
require(holder != address(this) && holder != pair)
require(gas < 750000)
```

Recommendation

The team is suggested to provide a descriptive message to the errors. This message can be used to provide additional context about the error that occurred or to explain why the contract execution was halted. This can be useful for debugging and for providing more information to users that interact with the contract.

IDI - Immutable Declaration Improvement

Criticality	Minor / Informative
Location	MineBNB.sol#L391
Status	Unresolved

Description

The contract declares state variables that their value is initialized once in the constructor and are not modified afterwards. The `immutable` is a special declaration for this kind of state variables that saves gas when it is defined.

```
pair
```

Recommendation

By declaring a variable as immutable, the Solidity compiler is able to make certain optimizations. This can reduce the amount of storage and computation required by the contract, and make it more gas-efficient.

L02 - State Variables could be Declared Constant

Criticality	Minor / Informative
Location	MineBNB.sol#L172,173,186,330,331,332,333,339
Status	Unresolved

Description

State variables can be declared as constant using the constant keyword. This means that the value of the state variable cannot be changed after it has been set. Additionally, the constant variables decrease gas consumption of the corresponding transaction.

```
IBEP20 RWRD = IBEP20(0xbb4CdB9CBd36B01bD1cBaEBF2De08d9173bc095c)
address WBNB = 0xbb4CdB9CBd36B01bD1cBaEBF2De08d9173bc095c
uint256 public dividendsPerShareAccuracyFactor = 10 ** 36
address DEAD = 0x000000000000000000000000000000000000dEaD
address ZERO = 0x0000000000000000000000000000000000000000
address DEV = 0xb56e62C8AcBAC4abbc25456380b2C5E1e62E58b6
uint256 _totalSupply = 10000 * 10**6 * 10**_decimals
```

Recommendation

Constant state variables can be useful when the contract wants to ensure that the value of a state variable cannot be changed by any function in the contract. This can be useful for storing values that are important to the contract's behavior, such as the contract's address or the maximum number of times a certain function can be called. The team is advised to add the constant keyword to state variables that never change.

L04 - Conformance to Solidity Naming Conventions

Criticality	Minor / Informative
Location	MineBNB.sol#L108,172,173,211,330,331,332,333,335,336,337,341,342,452,455,553,558,563,568,632,636,655,665,671,676,681,731
Status	Unresolved

Description

The Solidity style guide is a set of guidelines for writing clean and consistent Solidity code. Adhering to a style guide can help improve the readability and maintainability of the Solidity code, making it easier for others to understand and work with.

The followings are a few key points from the Solidity style guide:

1. Use camelCase for function and variable names, with the first letter in lowercase (e.g., myVariable, updateCounter).
2. Use PascalCase for contract, struct, and enum names, with the first letter in uppercase (e.g., MyContract, UserStruct, ErrorEnum).
3. Use uppercase for constant variables and enums (e.g., MAX_VALUE, ERROR_CODE).
4. Use indentation to improve readability and structure.
5. Use spaces between operators and after commas.
6. Use comments to explain the purpose and behavior of the code.
7. Keep lines short (around 120 characters) to improve readability.

```
function WETH() external pure returns (address);
IBEP20 RWRD = IBEP20(0xbb4CdB9CBd36B01bD1cBaEBF2De08d9173bc095c)
address WBNB = 0xbb4CdB9CBd36B01bD1cBaEBF2De08d9173bc095c
uint256 _minDistribution
uint256 _minPeriod
address DEAD = 0x000000000000000000000000000000000000dEaD
address ZERO = 0x0000000000000000000000000000000000000000
address DEV = 0xb56e62C8AcBAC4abbc25456380b2C5E1e62E58b6
string constant _name = "MineBNB"
string constant _symbol = "MineBNB"
uint8 constant _decimals = 9
uint256 public _maxTxAmount = _totalSupply
uint256 public _maxWalletToken = _totalSupply

...
```

Recommendation

By following the Solidity naming convention guidelines, the codebase increased the readability, maintainability, and makes it easier to work with.
Find more information on the Solidity documentation
https://docs.soliditylang.org/en/v0.8.17/style-guide.html#naming-convention.

L07 - Missing Events Arithmetic

Criticality	Minor / Informative
Location	MineBNB.sol#L212,456,460,559,656,673,677
Status	Unresolved

Description

Events are a way to record and log information about changes or actions that occur within a contract. They are often used to notify external parties or clients about events that have occurred within the contract, such as the transfer of tokens or the completion of a task.

It's important to carefully design and implement the events in a contract, and to ensure that all required events are included. It's also a good idea to test the contract to ensure that all events are being properly triggered and logged.

```
minPeriod = _minPeriod
_maxTxAmount = (_totalSupply * maxTXPercentage_base1000 ) / 1000
_maxTxAmount = amount
sellMultiplier = Multiplier
liquidityFee = _liquidityFee
swapThreshold = _amount
targetLiquidity = _target
```

Recommendation

By including all required events in the contract and thoroughly testing the contract's functionality, the contract ensures that it performs as intended and does not have any missing events that could cause issues with its arithmetic.

L16 - Validate Variable Setters

Criticality	Minor / Informative
Location	MineBNB.sol#L94,666,667
Status	Unresolved

Description

The contract performs operations on variables that have been configured on user-supplied input. These variables are missing of proper check for the case where a value is zero. This can lead to problems when the contract is executed, as certain actions may not be properly handled when the value is zero.

```
owner = adr
autoLiquidityReceiver = _autoLiquidityReceiver
marketingFeeReceiver = _marketingFeeReceiver
```

Recommendation

By adding the proper check, the contract will not allow the variables to be configured with zero value. This will ensure that the contract can handle all possible input values and avoid unexpected behavior or errors. Hence, it can help to prevent the contract from being exploited or operating unexpectedly.

L19 - Stable Compiler Version

Criticality	Minor / Informative
Location	MineBNB.sol#L3
Status	Unresolved

Description

The `^` symbol indicates that any version of Solidity that is compatible with the specified version (i.e., any version that is a higher minor or patch version) can be used to compile the contract. The version lock is a mechanism that allows the author to specify a minimum version of the Solidity compiler that must be used to compile the contract code. This is useful because it ensures that the contract will be compiled using a version of the compiler that is known to be compatible with the code.

```
pragma solidity ^0.7.6;
```

Recommendation

The team is advised to lock the pragma to ensure the stability of the codebase. The locked pragma version ensures that the contract will not be deployed with an unexpected version. An unexpected version may produce vulnerabilities and undiscovered bugs. The compiler should be configured to the lowest version that provides all the required functionality for the codebase. As a result, the project will be compiled in a well-tested LTS (Long Term Support) environment.

L20 - Succeeded Transfer Check

Criticality	Minor / Informative
Location	MineBNB.sol#L289
Status	Unresolved

Description

According to the ERC20 specification, the transfer methods should be checked if the result is successful. Otherwise, the contract may wrongly assume that the transfer has been established.

```
RWRD.transfer(shareholder, amount)
```

Recommendation

The contract should check if the result of the transfer methods is successful. The team is advised to check the SafeERC20 library from the Openzeppelin library.

Functions Analysis

Contract	Type	Bases		
	Function Name	**Visibility**	**Mutability**	**Modifiers**
SafeMath	Library			
	add	Internal		
	sub	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	div	Internal		
IBEP20	Interface			
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-

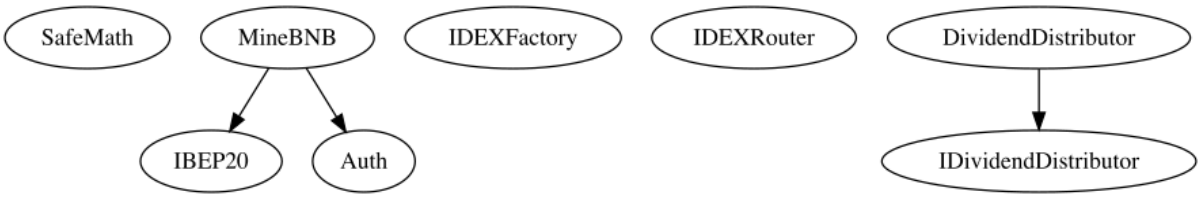
	transferFrom	External	✓	-
Auth	Implementation			
		Public	✓	-
	authorize	Public	✓	onlyOwner
	unauthorize	Public	✓	onlyOwner
	isOwner	Public		-
	isAuthorized	Public		-
	transferOwnership	Public	✓	onlyOwner
IDEXFactory	Interface			
	createPair	External	✓	-
IDEXRouter	Interface			
	factory	External		-
	WETH	External		-
	addLiquidity	External	✓	-
	addLiquidityETH	External	Payable	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-

IDividendDistributor	Interface			
	setDistributionCriteria	External	✓	-
	setShare	External	✓	-
	deposit	External	Payable	-
	process	External	✓	-
DividendDistributor	Implementation	IDividendDistributor		
		Public	✓	-
	setDistributionCriteria	External	✓	onlyToken
	setShare	External	✓	onlyToken
	deposit	External	Payable	onlyToken
	process	External	✓	onlyToken
	shouldDistribute	Internal		
	distributeDividend	Internal	✓	
	claimDividend	External	✓	-
	getUnpaidEarnings	Public		-
	getCumulativeDividends	Internal		
	addShareholder	Internal	✓	
	removeShareholder	Internal	✓	
MineBNB	Implementation	IBEP20, Auth		
		Public	✓	Auth
		External	Payable	-

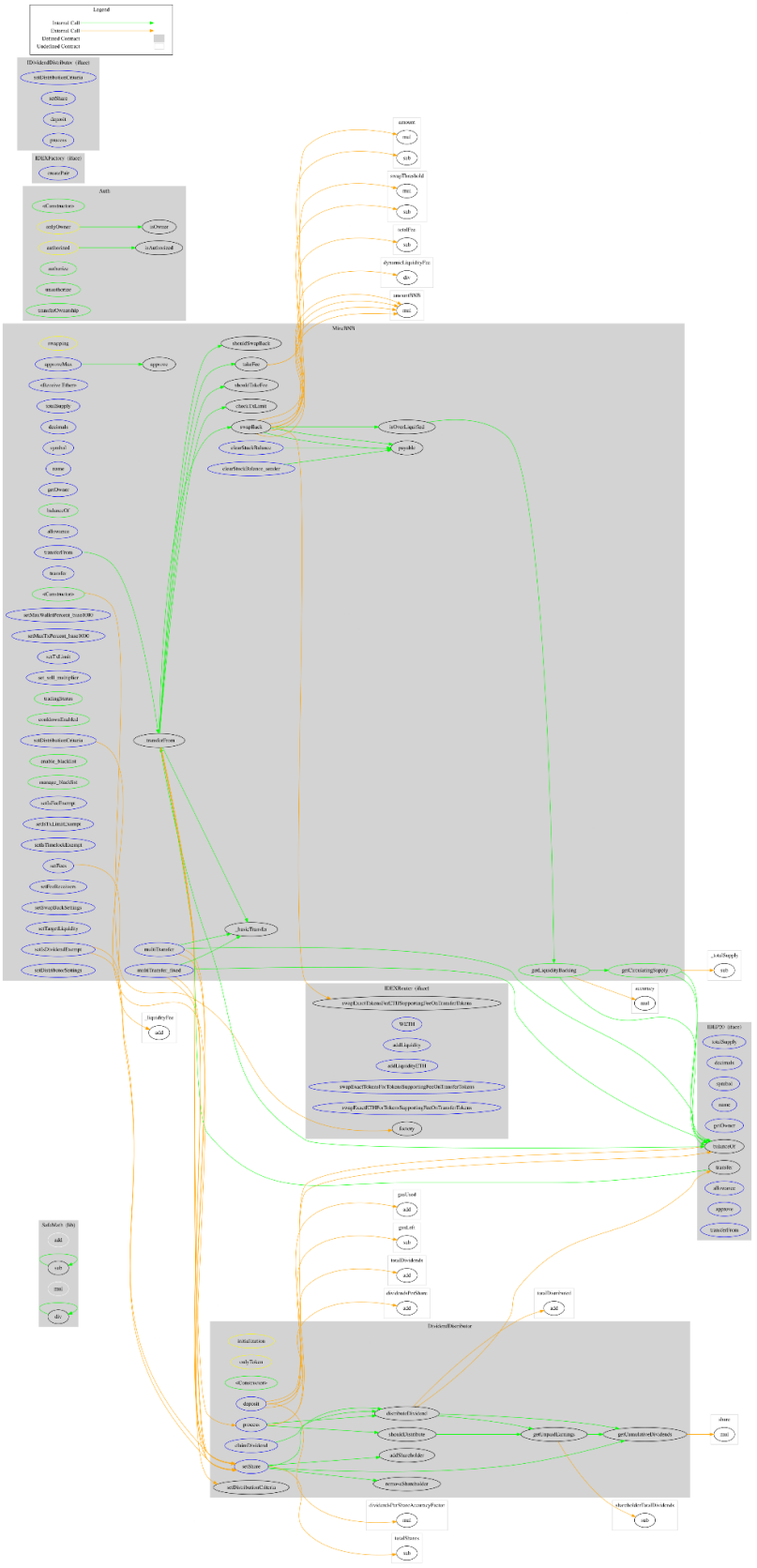
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	balanceOf	Public		-
	allowance	External		-
	approve	Public	✓	-
	approveMax	External	✓	-
	transfer	External	✓	-
	transferFrom	External	✓	-
	setMaxWalletPercent_base1000	External	✓	onlyOwner
	setMaxTxPercent_base1000	External	✓	onlyOwner
	setTxLimit	External	✓	authorized
	_transferFrom	Internal	✓	
	_basicTransfer	Internal	✓	
	checkTxLimit	Internal		
	shouldTakeFee	Internal		
	takeFee	Internal	✓	
	shouldSwapBack	Internal		
	clearStuckBalance	External	✓	authorized
	clearStuckBalance_sender	External	✓	authorized
	set_sell_multiplier	External	✓	onlyOwner

	tradingStatus	Public	✓	onlyOwner
	cooldownEnabled	Public	✓	onlyOwner
	swapBack	Internal	✓	swapping
	setIsDividendExempt	External	✓	authorized
	enable_blacklist	Public	✓	onlyOwner
	manage_blacklist	Public	✓	onlyOwner
	setIsFeeExempt	External	✓	authorized
	setIsTxLimitExempt	External	✓	authorized
	setIsTimelockExempt	External	✓	authorized
	setFees	External	✓	authorized
	setFeeReceivers	External	✓	authorized
	setSwapBackSettings	External	✓	authorized
	setTargetLiquidity	External	✓	authorized
	setDistributionCriteria	External	✓	authorized
	setDistributorSettings	External	✓	authorized
	getCirculatingSupply	Public		-
	getLiquidityBacking	Public		-
	isOverLiquified	Public		-
	multiTransfer	External	✓	onlyOwner
	multiTransfer_fixed	External	✓	onlyOwner

Inheritance Graph



Flow Graph



Summary

MineBNB contract implements a token mechanism. This audit investigates security issues, business logic concerns and potential improvements. There are some functions that can be abused by the owner like stop transactions, transfer the user's tokens, manipulate the fees and massively blacklist addresses. A multi-wallet signing pattern will provide security against potential hacks. The contract's ownership has been renounced. The information regarding the transaction can be accessed through the following link: https://bscscan.com/tx/0xb6e78aed438c4604d57e12125e9014a1f8ec3b1fc1b9d5effb22c6f060f3f5a7. The fees are locked at 12%. However, the authorized addresses still have access to some admin functions that can be abused, like setting the max transaction amount to zero and stopping transactions.

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Cyberscope is a blockchain cybersecurity company that was founded with the vision to make web3.0 a safer place for investors and developers. Since its launch, it has worked with thousands of projects and is estimated to have secured tens of millions of investors' funds.

Cyberscope is one of the leading smart contract audit firms in the crypto space and has built a high-profile network of clients and partners.

The Cyberscope team

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