



Cyberscope

Audit Report

BitChain

September 2022

Type BEP20

Network BSC

Address 0x84EC718EFc361a1b246680F1dbE0Fb26045dCc16

Audited by © cyberscope

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Contract Review

| | |
|-------------------------|---|
| Contract Name | BitChain |
| Compiler Version | v0.8.16+commit.07a7930e |
| Optimization | 200 runs |
| Licence | MIT |
| Explorer | https://bscscan.com/token/0x84EC718EFc361a1b246680F1dbE0Fb26045dCc16 |
| Symbol | BitCh |
| Decimals | 18 |
| Total Supply | 1,000,000,000 |
| Domain | growrichtoken.io |

Source Files

| | |
|---------------------|--|
| Filename | SHA256 |
| contract.sol | 41c1cf1faa0dff258a4a0b711b27444bdfcc919226c7c48e d8505d1ac7f287c3 |

Audit Updates

| | |
|--------------------------|---|
| Initial Audit | 22nd August 2022 https://github.com/cyberscope-io/audits/tree/main/v1/growrichz/mgb.pdf |
| Corrected phase 1 | 26th August 2022 https://github.com/cyberscope-io/audits/blob/main/v2/growrichz/audit.pdf |
| Corrected phase 2 | 29th August 2022 |

| | |
|--------------------------|---|
| | https://github.com/cyberscope-io/audits/blob/main/v3/growrichz/audit.pdf |
| Corrected phase 4 | 2nd September 2022 https://github.com/cyberscope-io/audits/blob/main/v4/growrichz/audit.pdf |
| Corrected phase 5 | 14 September 2022 |

Contract Analysis

● Critical ● Medium ● Minor / Informative ● Pass

| Severity | Code | Description | Status |
|----------|------|------------------------------------|--------|
| ● | ST | Stops Transactions | Passed |
| ● | OCTD | Transfers Contract's Tokens | Passed |
| ● | OTUT | Transfers User's Tokens | Passed |
| ● | ELFM | Exceeds Fees Limit | Passed |
| ● | ULTW | Transfers Liquidity to Team Wallet | Passed |
| ● | MT | Mints Tokens | Passed |
| ● | BT | Burns Tokens | Passed |
| ● | BC | Blacklists Addresses | Passed |

Contract Diagnostics

● Critical ● Medium ● Minor / Informative

| Severity | Code | Description | Status |
|----------|------|--------------------|--------------|
| ● | FSA | Fixed Swap Address | Acknowledged |

FSA - Fixed Swap Address

| | |
|--------------------|---------------------|
| Criticality | minor / informative |
| Location | contract.sol#L891 |
| Status | Acknowledged |

Description

The swap address is assigned once in the constructor and it can not be changed. The decentralized swaps sometimes create a new swap version or abandon the current. A contract that cannot change the swap address may not be able to catch-up the upgrade.

```
uniswapV2Pair = IUniswapV2Factory(_uniswapV2Router.factory())
IUniswapV2Router02 _uniswapV2Router = IUniswapV2Router02(
    0x7a250d5630B4cF539739dF2C5dAcb4c659F2488D
);
uniswapV2Pair = IUniswapV2Factory(_uniswapV2Router.factory())
    .createPair(address(this), _uniswapV2Router.WETH());
```

Recommendation

It could be better to allow the swap address mutation in case of future swap updates.

Updated 26 August 2022

The team has acknowledged that it is not a security issue.

Contract Functions

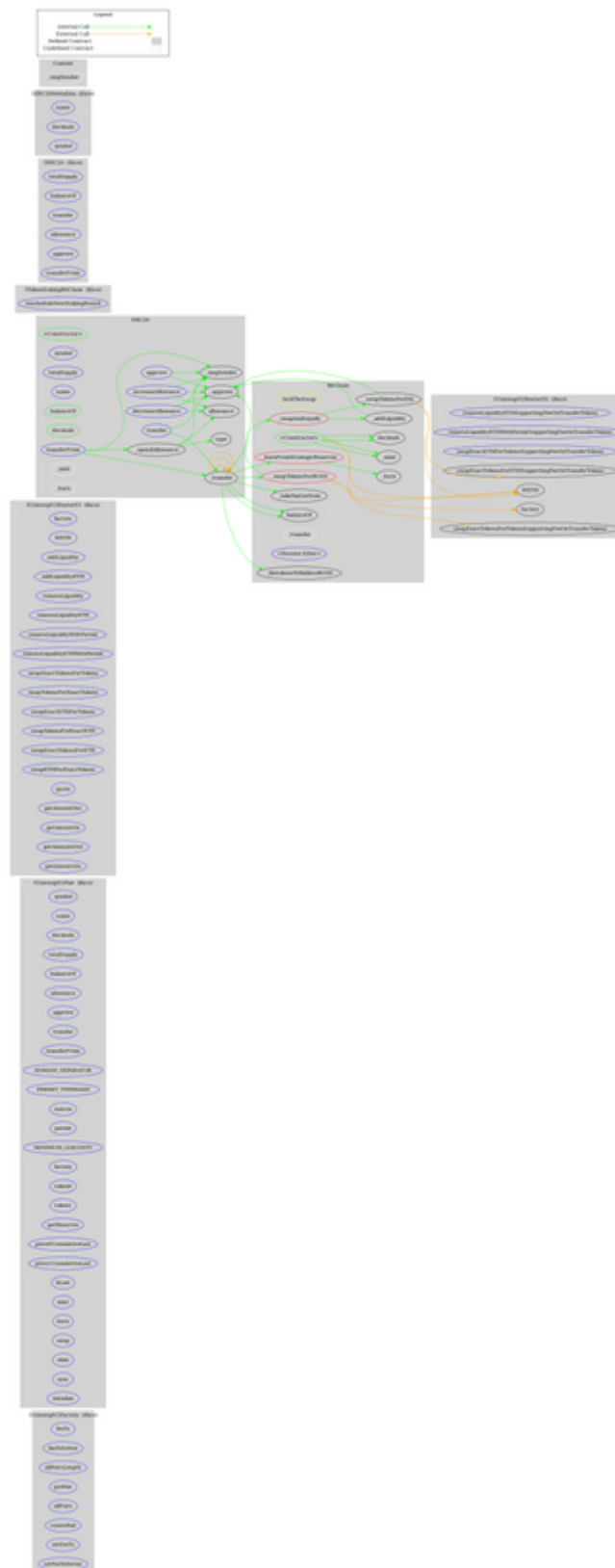
| Contract | Type | Bases | | |
|--------------------------|-------------------|------------|------------|-----------|
| | Function Name | Visibility | Mutability | Modifiers |
| | | | | |
| IUniswapV2Factory | Interface | | | |
| | feeTo | External | | - |
| | feeToSetter | External | | - |
| | allPairsLength | External | | - |
| | getPair | External | | - |
| | allPairs | External | | - |
| | createPair | External | ✓ | - |
| | setFeeTo | External | ✓ | - |
| | setFeeToSetter | External | ✓ | - |
| | | | | |
| IUniswapV2Pair | Interface | | | |
| | symbol | External | | - |
| | name | External | | - |
| | decimals | External | | - |
| | totalSupply | External | | - |
| | balanceOf | External | | - |
| | allowance | External | | - |
| | approve | External | ✓ | - |
| | transfer | External | ✓ | - |
| | transferFrom | External | ✓ | - |
| | DOMAIN_SEPARATOR | External | | - |
| | PERMIT_TYPEHASH | External | | - |
| | nonces | External | | - |
| | permit | External | ✓ | - |
| | MINIMUM_LIQUIDITY | External | | - |
| | factory | External | | - |
| | token0 | External | | - |

| | | | | |
|---------------------------|------------------------------|--------------------|---------|---|
| | token1 | External | | - |
| | getReserves | External | | - |
| | price0CumulativeLast | External | | - |
| | price1CumulativeLast | External | | - |
| | kLast | External | | - |
| | mint | External | ✓ | - |
| | burn | External | ✓ | - |
| | swap | External | ✓ | - |
| | skim | External | ✓ | - |
| | sync | External | ✓ | - |
| | initialize | External | ✓ | - |
| | | | | |
| IUniswapV2Router01 | Interface | | | |
| | factory | External | | - |
| | WETH | External | | - |
| | addLiquidity | External | ✓ | - |
| | addLiquidityETH | External | Payable | - |
| | removeLiquidity | External | ✓ | - |
| | removeLiquidityETH | External | ✓ | - |
| | removeLiquidityWithPermit | External | ✓ | - |
| | removeLiquidityETHWithPermit | External | ✓ | - |
| | swapExactTokensForTokens | External | ✓ | - |
| | swapTokensForExactTokens | External | ✓ | - |
| | swapExactETHForTokens | External | Payable | - |
| | swapTokensForExactETH | External | ✓ | - |
| | swapExactTokensForETH | External | ✓ | - |
| | swapETHForExactTokens | External | Payable | - |
| | quote | External | | - |
| | getAmountOut | External | | - |
| | getAmountIn | External | | - |
| | getAmountsOut | External | | - |
| | getAmountsIn | External | | - |
| | | | | |
| IUniswapV2Router02 | Interface | IUniswapV2Router01 | | |

| | | | | |
|-------------------------------|---|---------------------------------|---------|---|
| | removeLiquidityETHSupportingFeeOnTransferTokens | External | ✓ | - |
| | removeLiquidityETHWithPermitSupportingFeeOnTransferTokens | External | ✓ | - |
| | swapExactETHForTokensSupportingFeeOnTransferTokens | External | Payable | - |
| | swapExactTokensForTokensSupportingFeeOnTransferTokens | External | ✓ | - |
| | swapExactTokensForETHSupportingFeeOnTransferTokens | External | ✓ | - |
| | | | | |
| ITokenStaking BitChain | Interface | | | |
| | rescheduleNewStakingRound | External | ✓ | - |
| | | | | |
| IERC20 | Interface | | | |
| | totalSupply | External | | - |
| | balanceOf | External | | - |
| | transfer | External | ✓ | - |
| | allowance | External | | - |
| | approve | External | ✓ | - |
| | transferFrom | External | ✓ | - |
| | | | | |
| IERC20Metadata | Interface | IERC20 | | |
| | name | External | | - |
| | decimals | External | | - |
| | symbol | External | | - |
| | | | | |
| Context | Implementation | | | |
| | _msgSender | Internal | | |
| | | | | |
| ERC20 | Implementation | Context, IERC20, IERC20Metadata | | |
| | <Constructor> | Public | ✓ | - |
| | symbol | External | | - |
| | totalSupply | External | | - |

| | | | | |
|-----------------|----------------------------|----------|---------|-------------|
| | name | External | | - |
| | balanceOf | Public | | - |
| | decimals | Public | | - |
| | allowance | Public | | - |
| | transfer | External | ✓ | - |
| | approve | External | ✓ | - |
| | transferFrom | External | ✓ | - |
| | decreaseAllowance | External | ✓ | - |
| | increaseAllowance | External | ✓ | - |
| | _mint | Internal | ✓ | |
| | _burn | Internal | ✓ | |
| | _approve | Internal | ✓ | |
| | _spendAllowance | Internal | ✓ | |
| | _transfer | Internal | ✓ | |
| | | | | |
| BitChain | Implementation | ERC20 | | |
| | <Constructor> | Public | ✓ | ERC20 |
| | _takeTaxGetSum | Private | ✓ | |
| | _burnFromStrategicReserves | Private | ✓ | |
| | _swapAndLiquify | Private | ✓ | lockTheSwap |
| | _swapTokensForEth | Private | ✓ | |
| | _addLiquidity | Private | ✓ | |
| | _swapTokensForBUSD | Private | ✓ | lockTheSwap |
| | _distributeToWalletsBUSD | Private | ✓ | |
| | _transfer | Internal | ✓ | |
| | <Receive Ether> | External | Payable | - |

Contract Flow



Summary

BitChain is an interesting project that has a friendly and growing community. The ITokenStakingBitChain contract is out of the scope of this audit. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions. There is also a fixed fee limit of 10%.

Disclaimer

All the content provided in this document is for general information only and should not be used as financial advice or a reason to buy any investment.

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The Cyberscope team disclaims any liability for the resulting losses.

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>