



Cyberscope

Audit Report

Sportsverse

August 2022

Type BEP20

Network BSC

Address 0x502011fD61C143C08eDF04A88d7376981eA45237

Audited by © cyberscope

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Contract Review

| | |
|-------------------------|---|
| Contract Name | Sportsverse |
| Compiler Version | v0.8.15+commit.e14f2714 |
| Optimization | 200 runs |
| Licence | MIT |
| Explorer | https://bscscan.com/token/0x502011fD61C143C08eDF04A88d7376981eA45237 |
| Symbol | \$SV |
| Decimals | 18 |
| Total Supply | 1,000,000,000 |
| Domain | https://sportsverse.me |

Source Files

| | |
|---------------------|--|
| Filename | SHA256 |
| contract.sol | 8dd97479449f45b96cb2e7216ba10e6698edbeca0f4851c7467c5a8db2f4c2bb |

Audit Updates

| | |
|----------------------|-----------------|
| Initial Audit | 3rd August 2022 |
| Corrected | 9th August 2022 |

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 |

Contract Diagnostics

● Critical ● Medium ● Minor

| Severity | Code | Description |
|----------|------|--|
| ● | CR | Code Repetition |
| ● | L01 | Public Function could be Declared External |
| ● | L02 | State Variables could be Declared Constant |
| ● | L04 | Conformance to Solidity Naming Conventions |
| ● | L07 | Missing Events Arithmetic |
| ● | L09 | Dead Code Elimination |

CR - Code Repetition

| | |
|--------------------|---------------------------|
| Criticality | minor |
| Location | contract.sol#L630,645,665 |

Description

There are code segments that are repetitive in the contract. Those segments increase the code size of the contract unnecessarily.

The `_transfer` method can be optimized. The following code segment is repetitive.

```
_balances[sender] -= amount;  
_balances[recipient] += transferAmount;  
emit Transfer(sender, recipient, transferAmount);  
return;
```

This code segment is repetitive on `collectBuyFee`, `collectSellFee` methods.

```
uint256 _referralProgram = amount.mul(buyReferralProgramFee).div(10**(_feeDecimal + 2));  
transferAmount=transferAmount.sub(_referralProgram);  
_balances[ReferralAndFundsWallet] += _referralProgram;  
  
emit Transfer(account, ReferralAndFundsWallet , _referralProgram);
```

Recommendation

Create an internal function that contains the code segment and remove it from all the sections.

L01 - Public Function could be Declared External

| | |
|--------------------|---|
| Criticality | minor |
| Location | contract.sol#L572,513,550,291,494,468,706,501,521,306,296,591,532,317,310,460,302 |

Description

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

```
getUnlockTime  
name  
lock  
unlock  
approve  
decreaseAllowance  
transferOwnership  
getTime  
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#L423,416

Description

Constant state variables should be declared constant to save gas.

```
_feeDecimal  
totalTaxFee
```

Recommendation

Add the constant attribute to state variables that never change.

L04 - Conformance to Solidity Naming Conventions

Criticality

minor

Location

contract.sol#L736,724,399,398,412,416,706,336,731

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.

```
_referralAndFundsWallet  
_ReferralProgramFee  
WETH  
_marketingWallet  
_AutoBurnAndBuyBackFee  
Burn  
_feeDecimal  
ReferralAndFundsWallet  
_maxAmount  
...
```

Recommendation

Follow the Solidity naming convention.

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

L07 - Missing Events Arithmetic

Criticality

minor

Location

contract.sol#L736,731

Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes.

```
buyReferralProgramFee = _ReferralProgramFee  
sellmarketingAndMaintananceFee = _marketingAndMaintananceFee
```

Recommendation

Emit an event for critical parameter changes.

L09 - Dead Code Elimination

Criticality

minor

Location

contract.sol#L160

Description

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

`ceil`

Recommendation

Remove unused functions.

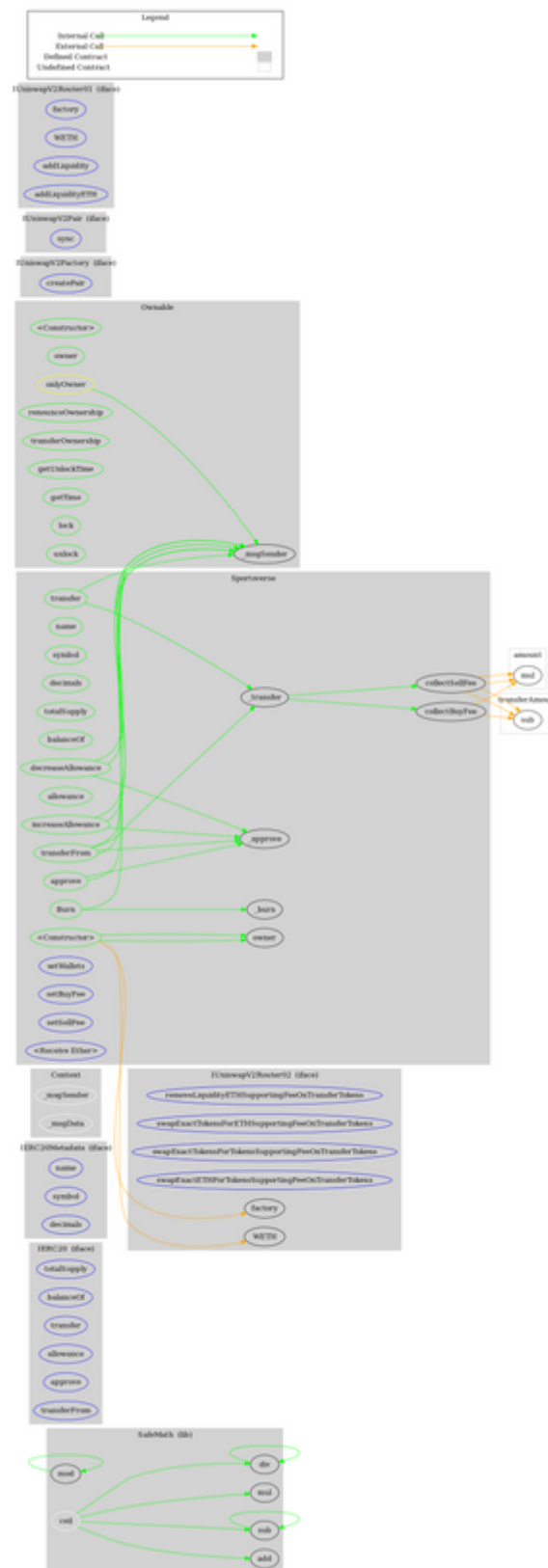
Contract Functions

| Contract | Type | Bases | | |
|-----------------------|----------------|------------|------------|-----------|
| | Function Name | Visibility | Mutability | Modifiers |
| | | | | |
| SafeMath | Library | | | |
| | add | Internal | | |
| | sub | Internal | | |
| | sub | Internal | | |
| | mul | Internal | | |
| | div | Internal | | |
| | div | Internal | | |
| | mod | Internal | | |
| | mod | Internal | | |
| | ceil | Internal | | |
| | | | | |
| IERC20 | Interface | | | |
| | totalSupply | External | | - |
| | balanceOf | External | | - |
| | transfer | External | ✓ | - |
| | allowance | External | | - |
| | approve | External | ✓ | - |
| | transferFrom | External | ✓ | - |
| | | | | |
| IERC20Metadata | Interface | IERC20 | | |
| | name | External | | - |
| | symbol | External | | - |
| | decimals | External | | - |
| | | | | |
| Context | Implementation | | | |
| | _msgSender | Internal | | |
| | _msgData | Internal | | |
| | | | | |

| Ownable | Implementation | Context | | |
|---------------------------|---|--------------------|---------|-----------|
| | <Constructor> | Public | ✓ | - |
| | owner | Public | | - |
| | renounceOwnership | Public | ✓ | onlyOwner |
| | transferOwnership | Public | ✓ | onlyOwner |
| | getUnlockTime | Public | | - |
| | getTime | Public | | - |
| | lock | Public | ✓ | onlyOwner |
| | unlock | Public | ✓ | - |
| | | | | |
| IUniswapV2Factory | Interface | | | |
| | createPair | External | ✓ | - |
| | | | | |
| IUniswapV2Pair | Interface | | | |
| | sync | External | ✓ | - |
| | | | | |
| IUniswapV2Router01 | Interface | | | |
| | factory | External | | - |
| | WETH | External | | - |
| | addLiquidity | External | ✓ | - |
| | addLiquidityETH | External | Payable | - |
| | | | | |
| IUniswapV2Router02 | Interface | IUniswapV2Router01 | | |
| | removeLiquidityETHSupportingFeeOnTransferTokens | External | ✓ | - |
| | swapExactTokensForETHSupportingFeeOnTransferTokens | External | ✓ | - |
| | swapExactTokensForTokensSupportingFeeOnTransferTokens | External | ✓ | - |
| | swapExactETHForTokensSupportingFeeOnTransferTokens | External | Payable | - |
| | | | | |

| Sportsverse | Implementation | Ownable, IERC20, IERC20Metadata | | |
|-------------|-------------------|---------------------------------|---------|-----------|
| | <Constructor> | Public | ✓ | - |
| | name | Public | | - |
| | symbol | Public | | - |
| | decimals | Public | | - |
| | totalSupply | Public | | - |
| | balanceOf | Public | | - |
| | transfer | Public | ✓ | - |
| | allowance | Public | | - |
| | approve | Public | ✓ | - |
| | transferFrom | Public | ✓ | - |
| | increaseAllowance | Public | ✓ | - |
| | decreaseAllowance | Public | ✓ | - |
| | _transfer | Internal | ✓ | |
| | collectBuyFee | Private | ✓ | |
| | collectSellFee | Private | ✓ | |
| | _approve | Internal | ✓ | |
| | Burn | Public | ✓ | - |
| | _burn | Internal | ✓ | |
| | setWallets | External | ✓ | onlyOwner |
| | setBuyFee | External | ✓ | onlyOwner |
| | setSellFee | External | ✓ | onlyOwner |
| | <Receive Ether> | External | Payable | - |

Contract Flow



Domain Info

| | |
|-------------------------------|--------------------------|
| Domain Name | sportsverse.me |
| Registry Domain ID | D425500000339768159-AGRS |
| Creation Date | 2022-07-28T20:47:56Z |
| Updated Date | 2022-07-28T20:47:59Z |
| Registry Expiry Date | 2023-07-28T20:47:56Z |
| Registrar WHOIS Server | whois.namecheap.com |
| Registrar URL | www.namecheap.com |
| Registrar | NameCheap, Inc. |
| Registrar IANA ID | 1068 |

The domain was created 12 months before the creation of the audit.

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

Summary

Sportsverse is an interesting project that has a friendly and growing community. 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 limit of max 24% fees.

Disclaimer

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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>