

# Smart Contract Security Audit

**AUDIT RATE TECH**

for

**BetVerse**



**Audit Rate  
Tech**



### Ownership:

- *Owned*

### Set fees:

- *Can set fees up to 30% max*

### Mint functions:

- *No found*

### Max tx amount:

- *Can set  $\geq 0.5\%$  of Total Supply*

### Stop or pause trading:

- *Cannot set*

### Blacklist

- *Cannot blacklist*

## ***Disclaimer***

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

## ***Audit details:***

Audited project: BetVerse

Total supply: 10,000,000,000

Token ticker: \$BETV

Decimals: 9

Contract address: 0xB49C444cF5EA582c8934c47ac32C2F69C2C912B1

Languages: Solidity (Smart contract)

Platforms and Tools: Remix IDE, Truffle, Truffle Team, Ganache, Solhint, VScode, Mythril,

Contract Library

Compiler Version: v0.8.19+commit.7dd6d404

Optimization Enabled: Yes with 200 runs

Contract Deployer Address: 0x09e4b3D210b1f3a1F5A224e69656D1F8E779bD11

Blockchain: Ethereum

The audit items and results:

(Other unknown security vulnerabilities are not included in the audit responsibility scope)

Audit Result: Passed

Audit Date: April 25, 2023

Audit Team: AUDIT RATE TECH

<https://www.auditrate.tech/>

## ***Introduction***

This Audit Report mainly focuses on the overall security of BetVerse Smart Contract. With this report, we have tried to ensure the reliability and correctness of their smart contract by complete and rigorous assessment of their system's architecture and the smart contract codebase.

## ***Auditing Approach and Methodologies applied***

The AUDIT RATE TECH team has performed rigorous testing of the project starting with analyzing the code design patterns in which we reviewed the smart contract architecture to ensure it is structured and safe use of third-party smart contracts and libraries.

Our team then performed a formal line by line inspection of the Smart Contract to find any potential issue like race conditions, transaction-ordering dependence, timestamp dependence, and denial of service attacks.

In the Unit testing Phase, we coded/conducted custom unit tests written for each function in the contract to verify that each function works as expected.

In Automated Testing, we tested the Smart Contract with our in-house developed tools to identify vulnerabilities and security flaws.

The code was tested in collaboration of our multiple team members and this included -

- Testing the functionality of the Smart Contract to determine proper logic has been followed throughout the whole process.
- Analyzing the complexity of the code in depth and detailed, manual review of the code, lineby-line.
- Deploying the code on testnet using multiple clients to run live tests.
- Analyzing failure preparations to check how the Smart Contract performs in case of any bugs and vulnerabilities.
- Checking whether all the libraries used in the code are on the latest version.
- Analyzing the security of the on-chain data.

## ***Audit Goals***

The focus of the audit was to verify that the Smart Contract System is secure, resilient and working according to the specifications. The audit activities can be grouped in the following three categories:

**Security**

Identifying security related issues within each contract and the system of contract.

**Sound Architecture**

Evaluation of the architecture of this system through the lens of established smart contract best practices and general software best practices.

**Code Correctness and Quality**

A full review of the contract source code. The primary areas of focus include:

- Accuracy
- Readability
- Sections of code with high complexity
- Quantity and quality of test coverage

## ***Issue Categories***

Every issue in this report was assigned a severity level from the following:

### ***High level severity issues***

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

### ***Medium level severity issues***

Issues on this level could potentially bring problems and should eventually be fixed.

### ***Low level severity issues***

Issues on this level are minor details and warnings that can remain unfixed but would be better fixed at some point in the future.

### ***Manual Audit:***

For this section the code was tested/read line by line by our developers. We also used Remix IDE's JavaScript VM and Kovan networks to test the contract functionality.

### ***Automated Audit***

**Remix Compiler Warnings**

It throws warnings by Solidity's compiler. If it encounters any errors the contract cannot be compiled and deployed. No issues found.

# Issues Checking Status

| SWC ID  | Description   | Checking status |
|---------|---|-----------------|
| SWC-100 | Function Default Visibility                             | Passed          |
| SWC-101 | Integer Overflow and Underflow                          | Passed          |
| SWC-102 | Outdated Compiler Version                               | Passed          |
| SWC-103 | Floating Pragma   | Passed          |
| SWC-104 | Unchecked Call Return Value                             | Passed          |
| SWC-105 | Unprotected Ether Withdrawal                            | Passed          |
| SWC-106 | Unprotected SELFDESTRUCT Instruction                    | Passed          |
| SWC-107 | Reentrancy  | Passed          |
| SWC-108 | State Variable Default Visibility                       | Passed          |
| SWC-109 | Uninitialized Storage Pointer                           | Passed          |
| SWC-110 | Assert Violation  | Passed          |
| SWC-111 | Use of Deprecated Solidity Functions                    | Passed          |
| SWC-112 | Delegatecall to Untrusted Callee                        | Passed          |
| SWC-113 | DoS with Failed Call                                    | Passed          |
| SWC-114 | Transaction Order Dependence                            | Passed          |
| SWC-115 | Authorization through tx.origin                         | Passed          |
| SWC-116 | Block values as a proxy for time                        | Passed          |
| SWC-117 | Signature Malleability                                  | Passed          |
| SWC-118 | Incorrect Constructor Name                              | Passed          |
| SWC-119 | Shadowing State Variables                               | Passed          |
| SWC-120 | Weak Sources of Randomness from Chain Attributes        | Passed          |
| SWC-121 | Missing Protection against Signature Replay Attacks     | Passed          |
| SWC-122 | Lack of Proper Signature Verification                   | Passed          |
| SWC-123 | Requirement Violation                                   | Passed          |
| SWC-124 | Write to Arbitrary Storage Location                     | Passed          |
| SWC-125 | Incorrect Inheritance Order                             | Passed          |
| SWC-126 | Insufficient Gas Griefing                               | Passed          |
| SWC-127 | Arbitrary Jump with Function Type Variable              | Passed          |
| SWC-128 | DoS With Block Gas Limit                                | Passed          |
| SWC-129 | Typographical Error                                     | Passed          |
| SWC-130 | Right-To-Left-Override control character (U+202E)       | Passed          |
| SWC-131 | Presence of unused variables                            | Passed          |
| SWC-132 | Unexpected Ether balance                                | Passed          |
| SWC-133 | Hash Collisions With Multiple Variable Length Arguments | Passed          |
| SWC-134 | Message call with hardcoded gas amount                  | Passed          |
| SWC-135 | Code With No Effects                                    | Passed          |
| SWC-136 | Unencrypted Private Data On-Chain                       | Passed          |

## ***Owner privileges***

319 rescueETH  
323 rescueERC20  
332 transferOwner  
346 renounceOwnership  
381 approveContractContingency  
404 setNewRouter  
417 setLpPair  
428 changeRouterContingency  
441 setExcludedFromFees  
445 setTaxes  
455 setRatios  
462 setMaxTxPercent  
472 setSwapSettings  
477 setWallets  
483 setContractSwapEnabled  
488 excludePresaleAddresses  
597 enableTrading



## Top Token Holders

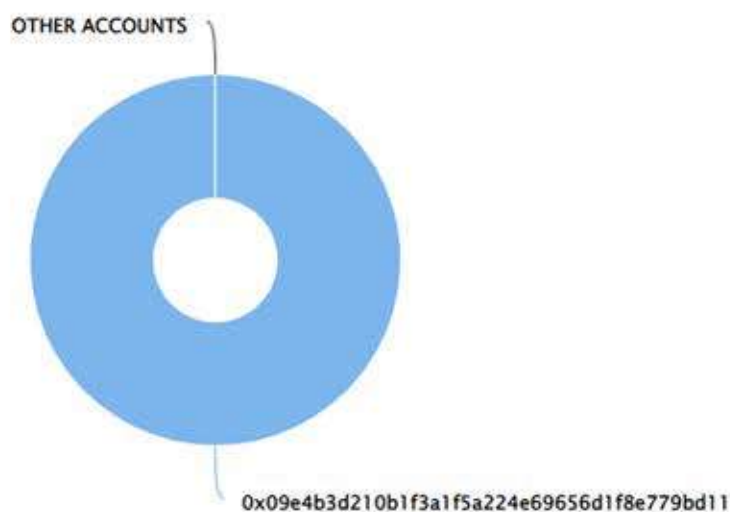
At the time of the audit

The top 100 holders collectively own 100.00% (10,000,000,000.00 Tokens) of BetVerse

Token Total Supply: 10,000,000,000.00 Token | Total Token Holders: 1

### BetVerse Top 100 Token Holders

Source: Etherscan.io



(A total of 10,000,000,000.00 tokens held by the top 100 accounts from the total supply of 10,000,000,000.00 token)

| Rank | Address                             | Quantity (Token) | Percentage |
|------|-------------------------------------|------------------|------------|
| 1    | <a href="#">0x09e4b3...E779bD11</a> | 10,000,000,000   | 100.0000%  |

## KYC/Doxx

Verified by



## Conclusion

### Owner can change fees up to 10% for buy, 10 % for sell and 10% for transfer

```
function setTaxes(uint16 buyFee, uint16 sellFee, uint16 transferFee)
external onlyOwner {
    require(buyFee <= staticVals.maxBuyTaxes
        && sellFee <=staticVals. maxSellTaxes
        && transferFee <= staticVals.maxTransferTaxes,
        "Cannot exceed maximums of 10%.");
    _taxRates.buyFee = buyFee;
    _taxRates.sellFee = sellFee;
    _taxRates.transferFee = transferFee; }
StaticValuesStruct public staticVals = StaticValuesStruct({
    maxBuyTaxes: 1000, //100=1%
    maxSellTaxes: 1000,
    maxTransferTaxes: 1000,
    masterTaxDivisor: 10000 });
```

### No mint function found

### Owner can set max tx amount $\geq 0.5\%$ of Total Supply

```
function setMaxTxPercent(uint256 percent) external onlyOwner {
    //Setup the values of Max Transaction Amount at a time, Anti Dump.
    require(percent>=5,"Max Transaction Amount cannot be set less than
0.5% of the Total Supply");
    _maxTxAmountPercent = percent; }
```

### Owner cannot blacklist

#### **Note:**

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner. The analysis of the contract does not give complete security and includes only the analysis that is indicated in the report. We do not analyze locked tokens or LP tokens, the presence of KYC in other companies, and so on. Also, our audit is not a recommendation for investment. All responsibility for the loss of investment lies with you!

