



YUSEI

Smart Contract Audit Report

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AUDITED DETAILS

Audited Project

| Project name | Token ticker | Blockchain |
|--------------|--------------|------------|
| YUSEI | \$YUS | Ethereum |

Addresses

| | |
|---------------------------|--|
| Contract address | 0x0dD6392662B132bA11e02cd5Cd628DfedF95c6f4 |
| Contract deployer address | 0xCe0C17C2D95DDCaF43c2729E46f88b3c72cC58e1 |

Project Website

| |
|---|
| https://yusei.tech/ |
|---|

Codebase

| |
|---|
| https://etherscan.io/address/0x0dD6392662B132bA11e02cd5Cd628DfedF95c6f4#code |
|---|

SUMMARY

Meme that team says plans to eventually go to shibarium. Very nice web with utilities on roadmap. Locked and just renounced with low tax. Nice branding. Team says they will push. 33k, Degen for now, dyor as always

Contract Summary

Documentation Quality

YUSEI provides a very good documentation with standard of solidity base code.

- The technical description is provided clearly and structured and also dont have any high risk issue.

Code Quality

The Overall quality of the basecode is standard.

- Standard solidity basecode and rules are already followed by YUSEI with the discovery of several low issues.

Test Coverage

Test coverage of the project is 100% (Through Codebase)

Audit Findings Summary

- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 77, 92, 100, 101, 115, 169, 169, 170, 170, 195, 195, 196, 196, 197, 197, 346, 425 and 577.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 6.
- SWC-110 SWC-123 | It is recommended to use of revert(), assert(), and require() in Solidity, and the new REVERT opcode in the EVM on lines 392, 393, 426 and 578.

CONCLUSION

We have audited the YUSEI project released on January 2023 to discover issues and identify potential security vulnerabilities in YUSEI Project. This process is used to find technical issues and security loopholes which might be found in the smart contract.

The security audit report provides a satisfactory result with some low-risk issues.

The issues found in the YUSEI smart contract code do not pose a considerable risk. The writing of the contract is close to the standard of writing contracts in general. The low-risk issues found are some arithmetic operation issues, a floating pragma is set, and out of bounds array access which the index access expression can cause an exception in case of the use of an invalid array index value.

AUDIT RESULT

| Article | Category | Description | Result |
|-----------------------------------|--------------------|---|-------------|
| Default Visibility | SWC-100 SWC-108 | Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously. | PASS |
| Integer Overflow and Underflow | SWC-101 | If unchecked math is used, all math operations should be safe from overflows and underflows. | ISSUE FOUND |
| Outdated Compiler Version | SWC-102 | It is recommended to use a recent version of the Solidity compiler. | PASS |
| Floating Pragma | SWC-103 | Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly. | ISSUE FOUND |
| Unchecked Call Return Value | SWC-104 | The return value of a message call should be checked. | PASS |
| Unprotected Ether Withdrawal | SWC-105 | Due to missing or insufficient access controls, malicious parties can withdraw from the contract. | PASS |
| SELFDESTRUCT Instruction | SWC-106 | The contract should not be self-destructible while it has funds belonging to users. | PASS |
| Reentrancy | SWC-107 | Check effect interaction pattern should be followed if the code performs recursive call. | PASS |
| Uninitialized Storage Pointer | SWC-109 | Uninitialized local storage variables can point to unexpected storage locations in the contract. | PASS |
| Assert Violation | SWC-110 SWC-123 | Properly functioning code should never reach a failing assert statement. | ISSUE FOUND |
| Deprecated Solidity Functions | SWC-111 | Deprecated built-in functions should never be used. | PASS |
| Delegate call to Untrusted Callee | SWC-112 | Delegatecalls should only be allowed to trusted addresses. | PASS |

| | | | |
|-------------------------------------|-------------------------------|---|------|
| DoS (Denial of Service) | SWC-113 SWC-128 | Execution of the code should never be blocked by a specific contract state unless required. | PASS |
| Race Conditions | SWC-114 | Race Conditions and Transactions Order Dependency should not be possible. | PASS |
| Authorization through tx.origin | SWC-115 | tx.origin should not be used for authorization. | PASS |
| Block values as a proxy for time | SWC-116 | Block numbers should not be used for time calculations. | PASS |
| Signature Unique ID | SWC-117 SWC-121 SWC-122 | Signed messages should always have a unique id. A transaction hash should not be used as a unique id. | PASS |
| Incorrect Constructor Name | SWC-118 | Constructors are special functions that are called only once during the contract creation. | PASS |
| Shadowing State Variable | SWC-119 | State variables should not be shadowed. | PASS |
| Weak Sources of Randomness | SWC-120 | Random values should never be generated from Chain Attributes or be predictable. | PASS |
| Write to Arbitrary Storage Location | SWC-124 | The contract is responsible for ensuring that only authorized user or contract accounts may write to sensitive storage locations. | PASS |
| Incorrect Inheritance Order | SWC-125 | When inheriting multiple contracts, especially if they have identical functions, a developer should carefully specify inheritance in the correct order. The rule of thumb is to inherit contracts from more /general/ to more /specific/. | PASS |
| Insufficient Gas Griefing | SWC-126 | Insufficient gas grieving attacks can be performed on contracts which accept data and use it in a sub-call on another contract. | PASS |
| Arbitrary Jump Function | SWC-127 | As Solidity doesnt support pointer arithmetics, it is impossible to change such variable to an arbitrary value. | PASS |

| | | | |
|----------------------------|--------------------|--|------|
| Typographical Error | SWC-129 | A typographical error can occur for example when the intent of a defined operation is to sum a number to a variable. | PASS |
| Override control character | SWC-130 | Malicious actors can use the Right-To-Left-Override unicode character to force RTL text rendering and confuse users as to the real intent of a contract. | PASS |
| Unused variables | SWC-131 SWC-135 | Unused variables are allowed in Solidity and they do not pose a direct security issue. | PASS |
| Unexpected Ether balance | SWC-132 | Contracts can behave erroneously when they strictly assume a specific Ether balance. | PASS |
| Hash Collisions Variable | SWC-133 | Using abi.encodePacked() with multiple variable length arguments can, in certain situations, lead to a hash collision. | PASS |
| Hardcoded gas amount | SWC-134 | The transfer() and send() functions forward a fixed amount of 2300 gas. | PASS |
| Unencrypted Private Data | SWC-136 | It is a common misconception that private type variables cannot be read. | PASS |

SMART CONTRACT ANALYSIS

| | |
|------------------|---|
| Started | Thursday Jan 26 2023 08:07:17 GMT+0000 (Coordinated Universal Time) |
| Finished | Friday Jan 27 2023 12:38:07 GMT+0000 (Coordinated Universal Time) |
| Mode | Standard |
| Main Source File | YUSEI.sol |

Detected Issues

| ID | Title | Severity | Status |
|---------|--------------------------------------|----------|--------------|
| SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED | low | acknowledged |

| | | | |
|----------------|--------------------------------------|------------|--------------|
| SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED | low | acknowledged |
| SWC-103 | A FLOATING PRAGMA IS SET. | low | acknowledged |
| SWC-110 | OUT OF BOUNDS ARRAY ACCESS | low | acknowledged |
| SWC-110 | OUT OF BOUNDS ARRAY ACCESS | low | acknowledged |
| SWC-110 | OUT OF BOUNDS ARRAY ACCESS | low | acknowledged |
| SWC-110 | OUT OF BOUNDS ARRAY ACCESS | low | acknowledged |

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 77

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
76  function add(uint256 a, uint256 b) internal pure returns (uint256) {  
77  uint256 c = a + b;  
78  require(c >= a, "SafeMath: addition overflow");  
79  return c;  
80  }  
81
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 92

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
91   require(b <= a, errorMessage);  
92   uint256 c = a - b;  
93   return c;  
94   }  
95  
96
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 100

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
99  }  
100  uint256 c = a * b;  
101  require(c / a == b, "SafeMath: multiplication overflow");  
102  return c;  
103  }  
104
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 101

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
100  uint256 c = a * b;  
101  require(c / a == b, "SafeMath: multiplication overflow");  
102  return c;  
103  }  
104  
105
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 115

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
114   require(b > 0, errorMessage);
115   uint256 c = a / b;
116   return c;
117   }
118   }
119
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 169

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
168 uint256 private constant MAX = ~uint256(0);
169 uint256 private constant _tTotal = 10000000000 * 10**9;
170 uint256 private _rTotal = (MAX - (MAX % _tTotal));
171 uint256 private _tFeeTotal;
172 uint256 private _redisFeeOnBuy = 0;
173
```


SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 169

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
168 uint256 private constant MAX = ~uint256(0);
169 uint256 private constant _tTotal = 10000000000 * 10**9;
170 uint256 private _rTotal = (MAX - (MAX % _tTotal));
171 uint256 private _tFeeTotal;
172 uint256 private _redisFeeOnBuy = 0;
173
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 170

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
169 uint256 private constant _tTotal = 10000000000 * 10**9;
170 uint256 private _rTotal = (MAX - (MAX % _tTotal));
171 uint256 private _tFeeTotal;
172 uint256 private _redisFeeOnBuy = 0;
173 uint256 private _taxFeeOnBuy = 30;
174
```

SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 170

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
169 uint256 private constant _tTotal = 10000000000 * 10**9;
170 uint256 private _rTotal = (MAX - (MAX % _tTotal));
171 uint256 private _tFeeTotal;
172 uint256 private _redisFeeOnBuy = 0;
173 uint256 private _taxFeeOnBuy = 30;
174
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 195

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
194
195  uint256 public _maxTxAmount = 20000000 * 10**9;
196  uint256 public _maxWalletSize = 20000000 * 10**9;
197  uint256 public _swapTokensAtAmount = 10000 * 10**9;
198
199
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 195

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
194
195  uint256 public _maxTxAmount = 20000000 * 10**9;
196  uint256 public _maxWalletSize = 20000000 * 10**9;
197  uint256 public _swapTokensAtAmount = 10000 * 10**9;
198
199
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 196

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
195  uint256 public _maxTxAmount = 20000000 * 10**9;  
196  uint256 public _maxWalletSize = 20000000 * 10**9;  
197  uint256 public _swapTokensAtAmount = 10000 * 10**9;  
198  
199  event MaxTxAmountUpdated(uint256 _maxTxAmount);  
200
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 196

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
195  uint256 public _maxTxAmount = 20000000 * 10**9;  
196  uint256 public _maxWalletSize = 20000000 * 10**9;  
197  uint256 public _swapTokensAtAmount = 10000 * 10**9;  
198  
199  event MaxTxAmountUpdated(uint256 _maxTxAmount);  
200
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 197

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
196 uint256 public _maxWalletSize = 20000000 * 10**9;  
197 uint256 public _swapTokensAtAmount = 10000 * 10**9;  
198  
199 event MaxTxAmountUpdated(uint256 _maxTxAmount);  
200 modifier lockTheSwap {  
201
```


SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 197

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
196 uint256 public _maxWalletSize = 20000000 * 10**9;
197 uint256 public _swapTokensAtAmount = 10000 * 10**9;
198
199 event MaxTxAmountUpdated(uint256 _maxTxAmount);
200 modifier lockTheSwap {
201
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 346

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
345     if(to != uniswapV2Pair) {  
346         require(balanceOf(to) + amount < _maxWalletSize, "TOKEN: Balance exceeds wallet  
size!");  
347     }  
348  
349     uint256 contractTokenBalance = balanceOf(address(this));  
350
```

SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 425

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
424     function blockBots(address[] memory bots_) public onlyOwner {  
425         for (uint256 i = 0; i < bots_.length; i++) {  
426             bots[bots_[i]] = true;  
427         }  
428     }  
429 }
```

SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 577

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- YUSEI.sol

Locations

```
576     function excludeMultipleAccountsFromFees(address[] calldata accounts, bool
excluded) public onlyOwner {
577     for(uint256 i = 0; i < accounts.length; i++) {
578     _isExcludedFromFee[accounts[i]] = excluded;
579     }
580     }
581
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 6

low SEVERITY

The current pragma Solidity directive is `""^0.8.17"`. It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- YUSEI.sol

Locations

```
5 // SPDX-License-Identifier: Unlicensed
6 pragma solidity ^0.8.17;
7
8 abstract contract Context {
9     function _msgSender() internal view virtual returns (address) {
10
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 392

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- YUSEI.sol

Locations

```
391 address[] memory path = new address[](2);
392 path[0] = address(this);
393 path[1] = uniswapV2Router.WETH();
394 _approve(address(this), address(uniswapV2Router), tokenAmount);
395 uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(
396
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 393

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- YUSEI.sol

Locations

```
392  path[0] = address(this);
393  path[1] = uniswapV2Router.WETH();
394  _approve(address(this), address(uniswapV2Router), tokenAmount);
395  uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(
396  tokenAmount,
397
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 426

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- YUSEI.sol

Locations

```
425   for (uint256 i = 0; i < bots_.length; i++) {  
426     bots[bots_[i]] = true;  
427   }  
428 }  
429  
430
```


SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 578

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- YUSEI.sol

Locations

```
577   for(uint256 i = 0; i < accounts.length; i++) {  
578       _isExcludedFromFee[accounts[i]] = excluded;  
579   }  
580   }  
581  
582
```

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This is a limited report on our findings based on our analysis, in accordance with good industry practice as of 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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