



BLOCK AUDIT REPORT

Smart Contract Security Audit Report



GTI Token (GTI)



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Block Audit Report Team received the GTI Token.sol file for smart contract security audit of the GTI Token (GTI) on Aug 03, 2022. The following are the details and results of this smart contract security audit:

Project Name: GTI Token (GTI)

The Contract address: 0xf06Be7919E41394C7087ac2B2549C9c769d0fb04

Link Address:

<https://bscscan.com/address/0xf06be7919e41394c7087ac2b2549c9c769d0fb04#code>

The audit items and results:

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

Audit Result: Passed

Audit Number: BAR0021804082022

Audit Date: Aug 04, 2022

Audit Team: Block Audit Report Team



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Introduction

This Audit Report mainly focuses on the extensive security of GTI Token (GTI) Smart Contract. With this report, we attempt to ensure the reliability and correctness of the smart contract by complete and rigorous assessment of the system's architecture and the smart contract codebase.

Auditing Approach and Methodologies applied

The Block Audit Report team has performed rigorous testing of the project including the analysis of the code design patterns where we reviewed the smart contract architecture to ensure it is structured along with the safe use of standard inherited contracts and libraries. Our team also conducted a formal line by line inspection of the Smart Contract i.e., a manual review, to find potential issues including but not limited to;

- Race conditions
- Zero race conditions approval attacks
- Re-entrancy
- Transaction-ordering dependence
- Timestamp dependence
- Check-effects-interaction pattern (optimistic accounting)
- Decentralized denial-of-service attacks
- Secure ether transfer pattern
- Guard check pattern
- Fail-safe mode
- Gas-limits and infinite loops
- Call Stack depth

In the Unit testing Phase, we coded/conducted custom unit tests written against each function in the contract to verify the claimed functionality from our client.

In Automated Testing, we tested the Smart Contract with our standard set of multifunctional tools to identify vulnerabilities and security flaws.

The code was tested in collaboration of our multiple team members and this included but not limited to;

- 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, line-by-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.



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Audit Details

Project Name: GTI Token (GTI)

Website/ BSCscan Code (**Mainnet**):

0xf06Be7919E41394C7087ac2B2549C9c769d0fb04

Languages: Solidity (Smart contract)

Platforms and Tools: Remix IDE, Truffle, Ganache, Mythril, Contract Library, Slither, Dapp.Tools, Echidna, Etheno





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 Sight

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, standard software design principle, design patterns and practices.

Code Correctness and Quality

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

- Accuracy
- Readability
- Usability vs Security
- 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:

Critical Severity Issues

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

High level severity issues

Issues on this level are strongly suggested by the team to be fixed before moving to the production 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 warning's that can remain unfixed but would be better fixed at some point in the future.



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Issues Checking Status

No	Issue description	Checking status
1	Compiler warnings.	Passed
2	Race conditions and Reentrancy. Cross-function race conditions.	Passed
3	Oracle calls.	Passed
4	Timestamp dependence.	Passed
5	DoS with Revert.	Passed
6	DoS with block gas limit.	Passed
7	Methods execution permissions.	Passed
8	Economy model.	Passed
9	The impact of the exchange rate on the logic.	Passed
10	Malicious Event log.	Passed
11	Scoping and Declarations.	Passed
12	Uninitialized storage pointers.	Passed
13	Arithmetic Operations accuracy.	Passed
14	Design Logic.	Passed
15	Cross-function race conditions.	Passed
16	Safe usage for Open Zeppelin module.	Passed
17	Fallback function security.	Passed
18	Send & receive ether.	Passed
19	Zero race condition approval attacks.	Passed
20	Short address attack.	Passed
21	Owner's authority to freeze.	Passed
22	Attempt to block ether flows.	Passed
23	Redundant inheritance check.	Passed
24	Silent overrides of mapping structs.	Passed
25	Function state mutability.	Passed
26	Unnecessary conversion of type.	Passed



Used Code from other Framework/Smart Contracts (direct import)

[+] interface IBEP20

- totalSupply()
- balanceOf(address account)
- transfer(address recipient, ...)
- allowance(address owner, add ...)
- approve(address spender, uin ...)
- transferFrom(address sender, ...)

[+] library SafeMath

- tryAdd(uint256 a, uint256 b)
- trySub(uint256 a, uint256 b)
- tryMul(uint256 a, uint256 b)
- tryDiv(uint256 a, uint256 b)
- tryMod(uint256 a, uint256 b)
- add(uint256 a, uint256 b)
- sub(uint256 a, uint256 b)
- mul(uint256 a, uint256 b)
- div(uint256 a, uint256 b)
- mod(uint256 a, uint256 b)
- sub(uint256 a, uint256 b, st ...)
- div(uint256 a, uint256 b, st ...)
- mod(uint256 a, uint256 b, st ...)

[+] library SafeMathInt

- mul(int256 a, int256 b)
- div(int256 a, int256 b)
- sub(int256 a, int256 b)
- add(int256 a, int256 b)
- abs(int256 a)
- toUint256Safe(int256 a)

[+] library SafeMathUint

- toInt256Safe(uint256 a)
- msgSender()
- msgData()
- marketingWlt()

[+] contract Ownable is Context

- owner()
- renounceOwnership()
- transferOwnership(address ne ...)

[+] interface IUniswapV2Factory

- feeTo()
- feeToSetter()
- getPair(address tokenA, addr ...)
- allPairs(uint)
- allPairsLength()



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- createPair(address tokenA, a ...)

- setFeeTo(address)

- setFeeToSetter(address)

[+] interface IUniswapV2Pair

- name()

- symbol()

- decimals()

- totalSupply()

- balanceOf(address owner)

- allowance(address owner, add ...)

- approve(address spender, uin ...)

- transfer(address to, uint va ...)

- transferFrom(address from, a ...)

- DOMAINSEPARATOR()

- PERMITTYPEHASH()

- nonces(address owner)

- permit(address owner, addres ...)

- MINIMUMLIQUIDITY()

- factory()

- token0()

- token1()

- getReserves()

- price0CumulativeLast()

- price1CumulativeLast()

- kLast()

- mint(address to)

- burn(address to)

- swap(uint amount0Out, uint a ...)

- skim(address to)

- sync()

- initialize(address, address)

[+] interface IUniswapV2Router01

- factory()

- WETH()

- addLiquidity()

- addLiquidityETH()

- removeLiquidity()

- removeLiquidityETH()

- removeLiquidityWithPermit()

- removeLiquidityETHWithPermit ...)

- swapExactTokensForTokens()

- swapTokensForExactTokens()

- swapExactETHForTokens(uint a ...)

- swapTokensForExactETH(uint a ...)

- swapExactTokensForETH(uint a ...)

- swapETHForExactTokens(uint a ...)

- quote(uint amountA, uint res ...)

- getAmountOut(uint amountIn, ...)

- getAmountIn(uint amountOut, ...)



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- getAmountsOut(uint amountIn, ...)
- getAmountsIn(uint amountOut, ...)

[+] **interface IUniswapV2Router02 is IUnis ...**

- removeLiquidityETHSupporting ...
- removeLiquidityETHWithPermit ...
- swapExactTokensForTokensSupp ...
- swapExactETHForTokensSupport ...
- swapExactTokensForETHSupport ...

[+] **contract TOKEN is Context, IBEP20, ... ***

- name()
- symbol()
- decimals()
- totalSupply()
- balanceOf(address account)
- transfer(address recipient, ...)
- allowance(address owner, address spender)
- approve(address spender, uint256 amount)
- transferFrom(address sender, address recipient, uint256 amount)
- increaseAllowance(address spender, uint256 amount)
- decreaseAllowance(address spender, uint256 amount)
- isExcludedFromReward(address account)
- totalFees()
- deliver(uint256 tAmount)
- reflectionFromToken(uint256 tAmount)
- tokenFromReflection(uint256 tAmount)
- excludeFromReward(address account)
- includeInReward(address account)
- setMarketingWallet(address marketingAddress)
- setMinimumTokenBalance(uint256 minBalance)
- setExcludedFromFee(address account)
- setTaxFeePercent(uint256 taxFeePercent)
- setLiquidityFeePercent(uint256 liquidityFeePercent)
- setPercentageOfLiquidityForMarketing(uint256 percentage)
- setMaxWalletTokens(uint256 maxWalletTokens)
- setSwapAndLiquifyEnabled(bool swapAndLiquifyEnabled)
- setUniswapRouter(address router)
- setUniswapPair(address pair)
- setExcludedFromAutoLiquidity(address account)
- reflectFee(uint256 rFee, uint256 tFee, uint256 amount)
- getTValues(uint256 tAmount)
- getRValues(uint256 tAmount, uint256 rFee, uint256 amount)
- getRate()
- getCurrentSupply()
- takeTransactionFee(address account)
- calculateFee(uint256 amount, uint256 taxFeePercent, uint256 liquidityFeePercent)
- isExcludedFromFee(address account)
- approve(address owner, address spender, uint256 amount)
- transfer(address recipient, uint256 amount)
- swapAndLiquify(uint256 contractTokenAmount, uint256 minLiquidity, uint256 minTokenAmount, address router, address pair)



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- swapTokensForBnb(uint256 tok ...)
- addLiquidity(uint256 tokenAm ...)
- tokenTransfer(address sende ...)
- transferStandard(address se ...)
- transferBothExcluded(addres ...)
- transferToExcluded(address ...)
- transferFromExcluded(addres ...)





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Manual Audit:

For this section the code was tested/read line by line by our auditors. We used Remix IDE's JavaScript VM and testnet Kovan to test the contract functionality in a simulated environment.

Of46452b7e4f993a9ad54a1a80f1135b979a1b258e90516ffd744aecdc23f3f4

File: GTI Tok... | Language: solidity | Size: 39565 bytes | Date: 2022-08-04T07:35:16.669Z

Critical	High	Medium	Low	Note
0	0	0	2	0



Critical Severity Issues

No critical severity issues found.

High Severity Issues

No high severity issues found.

Medium Severity Issues

No medium severity issues found.

Low Severity Issues

Title – Floating Pragma	Location
1 <pre> /** *Submitted for verification at BscScan.com on 2022-07-16 */ // SPDX-License-Identifier: Unlicensed pragma solidity ^0.8.10;</pre>	
SWC-103	A floating pragma is set.
Relationships	WE-664: Improper Control of a Resource Through its Lifetime
Description	Contracts should be deployed with the same compiler version and flags that they have been tested with thoroughly. Locking the pragma helps to ensure that



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	contracts do not accidentally get deployed using, for example, an outdated compiler version that might introduce bugs that affect the contract system negatively.	
Remediation	Pragma statements can be allowed to float when a contract is intended for consumption by other developers, as in the case with contracts in a library or EthPM package. Otherwise, the developer would need to manually update the pragma in order to compile locally.	
Status	Acknowledged	

Title – State Variable Default Visibility		Location
SWC-108	State Variable Default Visibility is not set.	L: 582 C: 9
Relationships	CWE-710: Improper Adherence to Coding Standards	
Description	Labeling the visibility explicitly makes it easier to catch incorrect assumptions about who can access the variable.	
Remediation	Variables can be specified as being public, internal or private. Explicitly define visibility for all state variables.	
Status	Acknowledged	

UNKNOWN Arithmetic operation "+" discovered
This plugin produces issues to support false positive discovery within BAR.
SWC-101

Source file
GTI Token (GII).sol
Locations

```
27 | function tryAdd(uint256 a, uint256 b) internal pure returns (bool, uint256) {
28 |     unchecked {
29 |         uint256 c = a + b;
30 |         if (c < a) return (false, 0);
31 |         return (true, c);
```

UNKNOWN Arithmetic operation "-" discovered
This plugin produces issues to support false positive discovery within MythX.
SWC-101

Source file
GTI Token (GII).sol
Locations

```
41 |     unchecked {
42 |         if (b > a) return (false, 0);
43 |         return (true, a - b);
44 |     }
45 | }
```



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UNKNOWN Arithmetic operation "*" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
56 // See: https://github.com/OpenZeppelin/openzeppelin-contracts/pull/522
57 if (a == 0) return (true, 0);
58 uint256 c = a * b;
59 if (c / a != b) return (false, 0);
60 return (true, c);
```

UNKNOWN Arithmetic operation "/" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
57 if (a == 0) return (true, 0);
58 uint256 c = a ^ b;
59 if (c / a != b) return (false, 0);
60 return (true, c);
61 }
```

UNKNOWN Arithmetic operation "/" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
70 unchecked {
71 if (b == 0) return (false, 0);
72 return (true, a / b);
73 }
74 }
```



BLOCK AUDIT REPORT

UNKNOWN Arithmetic operation "%" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
82 |     unchecked {
83 |         if (b == 0) return (false, 0);
84 |         return (true, a % b);
85 |     }
86 | }
```

UNKNOWN Arithmetic operation "+" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
57 |     /*
58 |     function add(uint256 a, uint256 b) internal pure returns (uint256) {
59 |         return a + b;
60 |     }
61 | }
```

UNKNOWN Arithmetic operation "-" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
111 |     /*
112 |     function sub(uint256 a, uint256 b) internal pure returns (uint256) {
113 |         return a - b;
114 |     }
115 | }
```



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UNKNOWN Arithmetic operation "*" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
125 | /*
126 |     function mul(uint256 a, uint256 b) internal pure returns (uint256) {
127 |         return a * b;
128 |
129 |     }
```

UNKNOWN Arithmetic operation "/" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
139 | /*
140 |     function div(uint256 a, uint256 b) internal pure returns (uint256) {
141 |         return a / b;
142 |
143 |     }
```

UNKNOWN Arithmetic operation "%" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
155 | /*
156 |     function mod(uint256 a, uint256 b) internal pure returns (uint256) {
157 |         return a % b;
158 |
159 |     }
```



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UNKNOWN Arithmetic operation "-" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
174 | unchecked {
175 |     require(b <= a, errorMessage);
176 |     return a - b;
177 |
178 }
```

UNKNOWN Arithmetic operation "/" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
197 | unchecked {
198 |     require(b > 0, errorMessage);
199 |     return a / b;
200 |
201 }
```

UNKNOWN Arithmetic operation "%" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
219 | unchecked {
220 |     require(b > 0, errorMessage);
221 |     return a % b;
222 |
223 }
```



BLOCK AUDIT REPORT

UNKNOWN Arithmetic operation "*" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
25 | /*
25 | function mul(int256 a, int256 b) internal pure returns (int256) {
24 |     int256 c = a * b;
25 |
26 |     // Detect overflow when multiplying MIN_INT256 with -1
```

UNKNOWN Arithmetic operation "/" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
26 | // Detect overflow when multiplying MIN_INT256 with -1
27 | require(c != MIN_INT256 || (a & MIN_INT256) != (b & MIN_INT256));
28 | require((b == 0) || (c / b == a));
29 | return c;
30 }
```

UNKNOWN Arithmetic operation "/" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
26 |
27 | // Solidity already throws when dividing by 0.
28 | return a / b;
29 |
30 }
```



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UNKNOWN Arithmetic operation "-" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
255 | */
256 | function sub(int256 a, int256 b) internal pure returns (int256) {
257 |     int256 c = a - b;
258 |     require((b >= 0 && c <= a) || (b < 0 && c > a));
259 |     return c;
```

UNKNOWN Arithmetic operation "+" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
264 | */
265 | function add(int256 a, int256 b) internal pure returns (int256) {
266 |     int256 c = a + b;
267 |     require((b >= 0 && c >= a) || (b < 0 && c < a));
268 |     return c;
```

UNKNOWN Arithmetic operation "*" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
559 |
560 |     uint256 private constant MAX = ~uint256(0);
561 |     uint256 private _tTotal = 200000000 * 10**18;
562 |     uint256 private _rTotal = (MAX - (MAX % _tTotal));
563 |     uint256 private _tFeeTotal;
```



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UNKNOWN Arithmetic operation "<<" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
559 | uint256 private constant MAX = ~uint256(0);
560 | uint256 private _tTotal = 20000000 * 10**18;
561 | uint256 private _rTotal = (MAX - (MAX % _tTotal));
562 |
563 | uint256 private _tFeeTotal;
```

UNKNOWN Arithmetic operation "-" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
560 | uint256 private constant MAX = ~uint256(0);
561 | uint256 private _tTotal = 20000000 * 10**18;
562 | uint256 private _rTotal = MAX - (MAX % _tTotal);
563 |
564 | uint256 private _tFeeTotal;
```

UNKNOWN Arithmetic operation "%" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
560 | uint256 private constant MAX = ~uint256(0);
561 | uint256 private _tTotal = 20000000 * 10**18;
562 | uint256 private _rTotal = (MAX - (MAX % _tTotal));
563 |
564 | uint256 private _tFeeTotal;
```



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UNKNOWN Arithmetic operation "*" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
56 // uint256 public _maxTxAmount = 10000000 * 10**18;
57 uint256 public _maxTxAmount = _tTotal;
58 uint256 private _minTokenBalance = 1 * 10**18;
59
590 // auto liquidity
```

UNKNOWN Arithmetic operation "==" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
56 // uint256 public _maxTxAmount = 10000000 * 10**18;
57 uint256 public _maxTxAmount = _tTotal;
58 uint256 private _minTokenBalance = 1 * 10**18;
59
590 // auto liquidity
```

UNKNOWN Arithmetic operation "++" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
727 require(_isExcluded[account], "Account is already excluded");
728
729 for (uint256 i = 0; i < _excluded.length; i++) {
730 if (_excluded[i] == account) {
731 _excluded[i] = _excluded[_excluded.length - 1];
```



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UNKNOWN Arithmetic operation "-" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
729 | for (uint256 i = 0; i < _excluded.length; i++) {  
730 |     if (_excluded[i] == account) {  
731 |         _excluded[i] = _excluded[_excluded.length - 1];  
732 |         _tOwned[account] = 0;  
733 |         _isExcluded[account] = false;
```

UNKNOWN Arithmetic operation "++" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
816 | uint256 rSupply = _rTotal;  
817 | uint256 tSupply = _tTotal;  
818 | for (uint256 i = 0; i < _excluded.length; i++) {  
819 |     if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return (_rTotal, _tTotal);  
820 |     rSupply = rSupply.sub(_rOwned[_excluded[i]]);
```

UNKNOWN Arithmetic operation "+" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
885 | uint256 contractBalanceRecipient = balanceOf(to);  
886 | require(  
887 |     contractBalanceRecipient + amount <= maxWalletToken,  
888 |     "Exceeds maximum wallet token amount."  
889 | );
```



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UNKNOWN Compiler-rewritable "<uint> - 1" discovered

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

SWC-101

Source file

GII Token (GII).sol

Locations

```
729 | for (uint256 i = 0; i < _excluded.length; i++) {  
730 |     if (_excluded[i] == account) {  
731 |         _excluded[i] = _excluded[_excluded.length - 1];  
732 |         _tOwned[account] = 0;  
733 |         _isExcluded[account] = false;
```

LOW A floating pragma is set.

The current pragma Solidity directive is "`^0.8.10`". 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.

SWC-103

Source file

GII Token (GII).sol

Locations

```
4 |  
5 | // SPDX-License-Identifier: Unlicensed  
6 | pragma solidity ^0.8.10;  
7 |  
8 |
```

LOW State variable visibility is not set.

It is best practice to set the visibility of state variables explicitly. The default visibility for `_inSwapAndLiquify` is internal. Other possible visibility settings are public and private.

SWC-108

Source file

GII Token (GII).sol

Locations

```
580 | // auto liquidity  
581 | bool public _swapAndLiquifyEnabled = true;  
582 | bool _inSwapAndLiquify;  
583 | IUniswapV2Router02 public _uniswapV2Router;  
584 | address public _uniswapV2Pair;
```



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UNKNOWN Out of bounds array access

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

SWC-110

Source file

GII Token (GII).sol

Locations

```
728 |
729 | for (uint256 i = 0; i < _excluded.length; i++) {
730 |   if (_excluded[i] == account) {
731 |     _excluded[i] = _excluded[_excluded.length - 1];
732 |     _tOwned[account] = 0;
```

UNKNOWN Out of bounds array access

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

SWC-110

Source file

GII Token (GII).sol

Locations

```
729 | for (uint256 i = 0; i < _excluded.length; i++) {
730 |   if (_excluded[i] == account) {
731 |     _excluded[i] = _excluded[_excluded.length - 1];
732 |     _tOwned[account] = 0;
733 |     _isExcluded[account] = false;
```

UNKNOWN Out of bounds array access

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

SWC-110

Source file

GII Token (GII).sol

Locations

```
729 | for (uint256 i = 0; i < _excluded.length; i++) {
730 |   if (_excluded[i] == account) {
731 |     _excluded[i] = _excluded[_excluded.length - 1];
732 |     _tOwned[account] = 0;
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```



BLOCK AUDIT REPORT

UNKNOWN Out of bounds array access

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

SWC-110

Source file

GII Token (GII).sol

Locations

```
817 | uint256 tSupply = _tTotal;
818 | for (uint256 i = 0; i < _excluded.length; i++) {
819 |   if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return (_rTotal, _tTotal);
820 |
821 |   rSupply = rSupply.sub(_rOwned[_excluded[i]]);
822 |
823 |   tSupply = tSupply.sub(_tOwned[_excluded[i]]);
```

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GII Token (GII).sol

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```



BLOCK AUDIT REPORT

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SWC-110

Source file

GTI Token (GTI).sol

Locations

```
819 | if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return (_rTotal, _tTotal);
820 | rSupply = rSupply.sub(_rOwned[_excluded[i]]);
821 | tSupply = tSupply.sub(_tOwned[_excluded[i]]);
822 |
823 | if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
```

UNKNOWN Out of bounds array access

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

SWC-110

Source file

GTI Token (GTI).sol

Locations

```
944 | // generate the uniswap pair path of token -> weth
945 | address[] memory path = new address[](2);
946 | path[0] = address(this);
947 | path[1] = _uniswapV2Router.WETH();
948 |
```

UNKNOWN Out of bounds array access

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

SWC-110

Source file

GTI Token (GTI).sol

Locations

```
945 | address[] memory path = new address[](2);
946 | path[0] = address(this);
947 | path[1] = _uniswapV2Router.WETH();
948 |
949 | _approve(address(this), address(_uniswapV2Router), tokenAmount);
```

Ownership Renounced

No

Owner privileges

Yes



Automated Audit

Remix Compiler Warnings

It throws warnings by Solidity's compiler. If it encounters any errors the contract cannot be compiled and deployed.

The screenshot shows the Remix IDE interface with the Solidity Compiler tab selected. The compiler version is 0.8.15+commit.e14f2714. Under the compiler settings, 'Auto compile' is checked and 'Hide warnings' is checked. There is also an unchecked checkbox for 'Include nightly builds'. Below the compiler settings, there is a button labeled 'Compile GTI Token (GTI).sol'. In the CONTRACT section, the contract name is 'Context (GTI Token (GTI).sol)'. There are three buttons: 'Publish on Ipfs' (with an IPFS icon), 'Publish on Swarm' (with a Swarm icon), and 'Compilation Details'. At the bottom right of the interface, there are links for ABI and Bytecode.



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 the client 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 the client 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 the client to conduct the client's 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 received smart contracts alone. No related/third-party smart contracts, applications or operations were reviewed for security. No product code has been reviewed.



Summary

Smart contracts received in file named: "GTI Token (GTI)" do not contain any high severity issues!

Note:

Please read the disclaimer above and note, the audit claims NO statements or warranties on business model, investment advice/ attractiveness or code sustainability. This report is provided for the only set of contracts mentioned in the report and does not claim responsibility to include security audits for any other contracts deployed by Owner.





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