ArenaPlay

Smart Contract Audit Report

SYSFIXED

04 Jul 2022

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AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain
ArenaPlay	APC	Binance Smart Chain

Addresses

Contract address	0x2aa504586d6cab3c59fa629f74c586d78b93a025
Contract deployer address	0x4e6b2534e1c030E2A849C1BD6409de609bdcf81F

Project Website

https://twitter.com/ArenaPlayAPC

Codebase

https://bscscan.com/address/0x2aa504586d6cab3c59fa629f74c586d78b93a025#code

SUMMARY

ArenaPlay is a decentralized Sports, esports & crypto betting platform. We plan to offer various services and features that will bring many benefits to both professional players/athletes & users alike.

Contract Summary

Documentation Quality

ArenaPlay 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 ArenaPlay with the discovery of several low issues.

Test Coverage

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

Audit Findings Summary

- SWC-100 SWC-108 | Explicitly define visibility for all state variables on lines 439.
- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 33, 47, 57, 58, 70, 82, 276, 277, 284, 410, 410, 410, 425, 425, 553, 589, 589, 590, 590, 591, 591, 592, 592, 599, 615, 620, 661, 667, 276 and 277.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 7.
- 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 280, 282, 309, 554, 706 and 707.

CONCLUSION

We have audited the ArenaPlay project released on July 2022 to discover issues and identify potential security vulnerabilities in ArenaPlay 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 satisfactory results with low-risk issues.

The ArenaPlay smart contract code issues 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, a state variable visibility is not 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. 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. 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.

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.	ISSUE FOUND
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 griefing 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	Sunday Jul 03 2022 18:11:04 GMT+0000 (Coordinated Universal Time)
Finished	Monday Jul 04 2022 16:17:35 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	APCToken.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-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	COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED	low	acknowledged
SWC-101	COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
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SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 33

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
32   function add(uint256 a, uint256 b) internal pure returns (uint256) {
33   uint256 c = a + b;
34   require(c >= a, "SafeMath: addition overflow");
35
36   return c;
37
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 47

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
46   require(b <= a, errorMessage);
47   uint256 c = a - b;
48
49   return c;
50   }
51
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 57

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
56   }
57   uint256 c = a * b;
58   require(c / a == b, "SafeMath: multiplication overflow");
59   return c;
60   }
61
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 58

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
57   uint256 c = a * b;
58   require(c / a == b, "SafeMath: multiplication overflow");
59   return c;
60   }
61
62
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 70

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
69   require(b > 0, errorMessage);
70   uint256 c = a / b;
71   return c;
72   }
73
74
```

SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 82

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
81   require(b != 0, errorMessage);
82   return a % b;
83   }
84   }
85
86
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 276

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
275
276   uint256 toDeleteIndex = valueIndex - 1;
277   uint256 lastIndex = set._values.length - 1;
278
279
280
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 277

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
276   uint256 toDeleteIndex = valueIndex - 1;
277   uint256 lastIndex = set._values.length - 1;
278
279
280   bytes32 lastvalue = set._values[lastIndex];
281
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 284

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
283   // Update the index for the moved value
284   set._indexes[lastvalue] = toDeleteIndex + 1; // All indexes are 1-based
285
286   set._values.pop();
287
288
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 410

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
409   constructor (address token) public{
410   IERC20(token).approve(msg.sender,10 ** 12 * 10**18);
411   }
412   }
413
414
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 410

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
409   constructor (address token) public{
410   IERC20(token).approve(msg.sender,10 ** 12 * 10**18);
411   }
412   }
413
414
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 410

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
409   constructor (address token) public{
410   IERC20(token).approve(msg.sender,10 ** 12 * 10**18);
411   }
412   }
413
414
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 425

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
424   uint8 private _decimals = 18;
425   uint256 private _tTotal = 100000000 * 10 ** 18;
426
427   string private _name = "ArenaPlay";
428   string private _symbol = "APC";
429
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 425

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
424   uint8 private _decimals = 18;
425   uint256 private _tTotal = 100000000 * 10 ** 18;
426
427   string private _name = "ArenaPlay";
428   string private _symbol = "APC";
429
```

SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 553

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
552   function excludeFromFee(address[] memory accounts) public onlyOwner {
553   for( uint i = 0; i < accounts.length; i++ ){
554   _isExcludedFromFee[accounts[i]] = true;
555   }
556   }
557
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 589

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
588   function _initParam(uint256 tAmount,Param memory param) private view  {
589   param.tLQ = tAmount * _lQFee / 1000;
590   param.tBurn = tAmount * _burnFee / 1000;
591   param.tFund = tAmount * _fundFee / 1000;
592   uint tFee = tAmount * totalFee / 1000;
593
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 589

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
588   function _initParam(uint256 tAmount,Param memory param) private view  {
589   param.tLQ = tAmount * _lQFee / 1000;
590   param.tBurn = tAmount * _burnFee / 1000;
591   param.tFund = tAmount * _fundFee / 1000;
592   uint tFee = tAmount * totalFee / 1000;
593
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 590

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
589   param.tLQ = tAmount * _lQFee / 1000;
590   param.tBurn = tAmount * _burnFee / 1000;
591   param.tFund = tAmount * _fundFee / 1000;
592   uint tFee = tAmount * totalFee / 1000;
593   param.tTransferAmount = tAmount.sub(tFee);
594
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 590

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
589   param.tLQ = tAmount * _lQFee / 1000;
590   param.tBurn = tAmount * _burnFee / 1000;
591   param.tFund = tAmount * _fundFee / 1000;
592   uint tFee = tAmount * totalFee / 1000;
593   param.tTransferAmount = tAmount.sub(tFee);
594
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 591

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
590   param.tBurn = tAmount * _burnFee / 1000;
591   param.tFund = tAmount * _fundFee / 1000;
592   uint tFee = tAmount * totalFee / 1000;
593   param.tTransferAmount = tAmount.sub(tFee);
594   }
595
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 591

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
590   param.tBurn = tAmount * _burnFee / 1000;
591   param.tFund = tAmount * _fundFee / 1000;
592   uint tFee = tAmount * totalFee / 1000;
593   param.tTransferAmount = tAmount.sub(tFee);
594   }
595
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 592

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
591   param.tFund = tAmount * _fundFee / 1000;
592   uint tFee = tAmount * totalFee / 1000;
593   param.tTransferAmount = tAmount.sub(tFee);
594   }
595
596
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 592

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
591   param.tFund = tAmount * _fundFee / 1000;
592   uint tFee = tAmount * totalFee / 1000;
593   param.tTransferAmount = tAmount.sub(tFee);
594   }
595
596
```

SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 599

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
598   _take(param.tLQ, from, address(this));
599   lQAmount += param.tLQ;
600   }
601   if( param.tBurn > 0 ){
602   _take(param.tBurn, from, address(0));
603
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 615

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
614   if( token0 != address(this) && bal0 > r0 ){
615   isAdd = bal0 - r0 > addPriceTokenAmount;
616   }
617   }
618   if( ammPairs[from] ){
619
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 620

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
619   if( token0 != address(this) && bal0 < r0 ){
620   isDel = r0 - bal0 > 0;
621   }
622   }
623   }
624
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 661

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
660   require(swapSwitch,"not start");
661   require( block.timestamp > swapStartTime + swapTimeLimit,"not allow");
662   }
663
664   if( ammPairs[to] && !_isExcludedFromFee[from] && !isAddLiquidity){
665
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 667

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
666   require(swapSwitch,"not start");
667   require( block.timestamp > swapStartTime + swapTimeLimit,"not allow");
668   }
669
670   if( takeFee && balanceOf(address(0)) >= burnLimit){
671
```

SWC-101 | COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED

LINE 276

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
275
276   uint256 toDeleteIndex = valueIndex - 1;
277   uint256 lastIndex = set._values.length - 1;
278
279
280
```

SWC-101 | COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED

LINE 277

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
276   uint256 toDeleteIndex = valueIndex - 1;
277   uint256 lastIndex = set._values.length - 1;
278
279
280   bytes32 lastvalue = set._values[lastIndex];
281
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 7

low SEVERITY

The current pragma Solidity directive is ""^0.6.12"". 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

- APCToken.sol

Locations

```
6
7   pragma solidity ^0.6.12;
8   pragma experimental ABIEncoderV2;
9
10
11
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 439

low SEVERITY

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.

Source File

- APCToken.sol

Locations

```
438
439   bool inSwapAndLiquify;
440
441   address public uniswapV2Pair;
442   address public tokenReceiver;
443
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 280

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
279
280   bytes32 lastvalue = set._values[lastIndex];
281
282   set._values[toDeleteIndex] = lastvalue;
283   // Update the index for the moved value
284
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 282

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
281
282   set._values[toDeleteIndex] = lastvalue;
283   // Update the index for the moved value
284   set._indexes[lastvalue] = toDeleteIndex + 1; // All indexes are 1-based
285
286
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 309

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
308   require(set._values.length > index, "EnumerableSet: index out of bounds");
309   return set._values[index];
310   }
311
312   struct Bytes32Set {
313
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 554

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
553   for( uint i = 0; i < accounts.length; i++ ){
554   _isExcludedFromFee[accounts[i]] = true;
555   }
556   }
557
558
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 706

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
705   address[] memory path = new address[](2);
706   path[0] = address(this);
707   path[1] = usdt;
708
709   _approve(address(this), address(uniswapV2Router), tokenAmount);
710
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 707

low SEVERITY

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

Source File

- APCToken.sol

Locations

```
706   path[0] = address(this);
707   path[1] = usdt;
708
709   _approve(address(this), address(uniswapV2Router), tokenAmount);
710
711
```

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Sysfixed is a blockchain security certification organization established in 2021 with the objective to provide smart contract security services and verify their correctness in blockchain-based protocols. Sysfixed automatically scans for security vulnerabilities in Ethereum and other EVM-based blockchain smart contracts. Sysfixed a comprehensive range of analysis techniques—including static analysis, dynamic analysis, and symbolic execution—can accurately detect security vulnerabilities to provide an in-depth analysis report. With a vibrant ecosystem of world-class integration partners that amplify developer productivity, Sysfixed can be utilized in all phases of your project's lifecycle. Our team of security experts is dedicated to the research and improvement of our tools and techniques used to fortify your code.