FPX Mobile

Smart Contract Audit Report

SYSFIXED

09 Mar 2023

TABLE OF CONTENTS

AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain
FPX Mobile	FPX	Binance Smart Chain

Addresses

Contract address	0x556ab849f6d805020bb0df72f5f92e001522cc07
Contract deployer address	0x9F81a977FF761AAC965f0E234F223ce53d9547f1

Project Website

https://www.fpxtoken.com/

Codebase

https://bscscan.com/address/0x556ab849f6d805020bb0df72f5f92e001522cc07#code

SUMMARY

Fpx designs virtual and real products using Blockchain and Web 3.0 technology in order to bring a unique innovation to online pay systems made worldwide. The aim of our project is to enable the crypto assets in the existing exchange accounts of the users to be converted into coins that can be used in daily life in seconds with the high security Fpx Mobile App. With the infrastructure it is developing, FPX Token is a technology that contributes to the formation of a structure that can be easily used by everyone and is valid in all parts of the world and in all areas of other elite crypto currencies under its own leadership.

Contract Summary

Documentation Quality

FPX Mobile 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 FPX Mobile 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 702, 702, 710, 710, 710, 712, 712, 853, 866, 879, 938, 941, 953, 953, 955, 955, 958, 958, 960, 960, 1018, 1018, 1018, 1019, 1019, 1019, 1020, 1020, 1020, 1021, 1021, 1021, 1036, 1038, 1049, 1049, 1050, 1055, 1082, 1104, 1104 and 1104.
- 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 975 and 976.

CONCLUSION

We have audited the FPX Mobile project released on March 2023 to discover issues and identify potential security vulnerabilities in FPX Mobile 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 issues found in the FPX Mobile 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 and out-of-bounds array access. The index access expression can cause an exception in case 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.	PASS
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	Wednesday Mar 08 2023 12:06:48 GMT+0000 (Coordinated Universal Time)
Finished	Thursday Mar 09 2023 22:20:39 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	FpxMobile.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	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-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 702

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
701   uint256 private constant MAX = ~uint256(0);
702   uint256 private _tTotal = 1_000_000_000 * 10**_decimals;
703
704
705   //Tax Definition for Contraact
706
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 702

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
701   uint256 private constant MAX = ~uint256(0);
702   uint256 private _tTotal = 1_000_000_000 * 10**_decimals;
703
704
705   //Tax Definition for Contraact
706
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 710

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
709   uint256 public _reserveFee = 1;
710   uint256 public totalSwapableFee = _treasureFee + _liquidityFee + _marketingFee +
_reserveFee;
711   //Definition for the swapAndLiquify Trigger.
712   uint256 private minimumTokensBeforeSwap = 1_000_000 * 10**_decimals;
713   //Swap Controls
714
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 710

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
709   uint256 public _reserveFee = 1;
710   uint256 public totalSwapableFee = _treasureFee + _liquidityFee + _marketingFee +
_reserveFee;
711   //Definition for the swapAndLiquify Trigger.
712   uint256 private minimumTokensBeforeSwap = 1_000_000 * 10**_decimals;
713   //Swap Controls
714
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 710

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
709   uint256 public _reserveFee = 1;
710   uint256 public totalSwapableFee = _treasureFee + _liquidityFee + _marketingFee +
_reserveFee;
711   //Definition for the swapAndLiquify Trigger.
712   uint256 private minimumTokensBeforeSwap = 1_000_000 * 10**_decimals;
713   //Swap Controls
714
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 712

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
711   //Definition for the swapAndLiquify Trigger.
712   uint256 private minimumTokensBeforeSwap = 1_000_000 * 10**_decimals;
713   //Swap Controls
714   uint256 public constant swapOutput = 0;
715   //Trading Controls added for SAFU Requirements
716
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 712

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
711   //Definition for the swapAndLiquify Trigger.
712   uint256 private minimumTokensBeforeSwap = 1_000_000 * 10**_decimals;
713   //Swap Controls
714   uint256 public constant swapOutput = 0;
715   //Trading Controls added for SAFU Requirements
716
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 853

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
852   _msgSender(),
853   _allowances[sender][_msgSender()] - amount
854   );
855   return true;
856   }
857
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 866

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
865   spender,
866   _allowances[_msgSender()][spender] + addedValue
867   );
868   return true;
869   }
870
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 879

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
878   spender,
879   _allowances[_msgSender()][spender] - subtractedValue
880   );
881   return true;
882   }
883
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 938

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
937   uint256 initialBalance = address(this).balance;
938   uint256 halfLiquidityTokens = liquidityTokensCollected / 2;
939   swapTokensForEth(halfLiquidityTokens);
940
941   uint256 newBalance = address(this).balance - initialBalance;
942
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 941

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
940
941   uint256 newBalance = address(this).balance - initialBalance;
942   addLiquidity(halfLiquidityTokens, newBalance);
943   emit SwapAndLiquify(
944   halfLiquidityTokens,
945
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 953

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
952
953   uint256 walletsTotal = treasureTokensCollected + marketingTokensCollected +
reserveTokensCollected;
954
955   uint256 ethForTreasure = (newBalance * treasureTokensCollected) /
956   walletsTotal;
957
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 953

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
952
953   uint256 walletsTotal = treasureTokensCollected + marketingTokensCollected +
reserveTokensCollected;
954
955   uint256 ethForTreasure = (newBalance * treasureTokensCollected) /
956   walletsTotal;
957
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 955

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
954
955   uint256 ethForTreasure = (newBalance * treasureTokensCollected) /
956   walletsTotal;
957
958   uint256 ethForMarketing = (newBalance * marketingTokensCollected) / walletsTotal;
959
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 955

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
954
955   uint256 ethForTreasure = (newBalance * treasureTokensCollected) /
956   walletsTotal;
957
958   uint256 ethForMarketing = (newBalance * marketingTokensCollected) / walletsTotal;
959
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 958

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
957
958   uint256 ethForMarketing = (newBalance * marketingTokensCollected) / walletsTotal;
959
960   uint256 ethForReserve = (newBalance * reserveTokensCollected) / walletsTotal;
961
962
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 958

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
957
958   uint256 ethForMarketing = (newBalance * marketingTokensCollected) / walletsTotal;
959
960   uint256 ethForReserve = (newBalance * reserveTokensCollected) / walletsTotal;
961
962
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 960

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
959
960   uint256 ethForReserve = (newBalance * reserveTokensCollected) / walletsTotal;
961
962   transferToAddressETH(treasureWalletAddress, ethForTreasure);
963   transferToAddressETH(marketingWalletAddress, ethForMarketing);
964
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 960

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
959
960   uint256 ethForReserve = (newBalance * reserveTokensCollected) / walletsTotal;
961
962   transferToAddressETH(treasureWalletAddress, ethForTreasure);
963   transferToAddressETH(marketingWalletAddress, ethForMarketing);
964
```

SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 1018

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1017   function countUpFeeShare(uint256 amount) private {
1018   liquidityTokensCollected += (amount * _liquidityFee) / 100;
1019   treasureTokensCollected += (amount * _treasureFee) / 100;
1020   marketingTokensCollected += (amount * _marketingFee) / 100;
1021   reserveTokensCollected += (amount * _reserveFee) / 100;
1022
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1018

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1017   function countUpFeeShare(uint256 amount) private {
1018   liquidityTokensCollected += (amount * _liquidityFee) / 100;
1019   treasureTokensCollected += (amount * _treasureFee) / 100;
1020   marketingTokensCollected += (amount * _marketingFee) / 100;
1021   reserveTokensCollected += (amount * _reserveFee) / 100;
1022
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 1018

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1017   function countUpFeeShare(uint256 amount) private {
1018   liquidityTokensCollected += (amount * _liquidityFee) / 100;
1019   treasureTokensCollected += (amount * _treasureFee) / 100;
1020   marketingTokensCollected += (amount * _marketingFee) / 100;
1021   reserveTokensCollected += (amount * _reserveFee) / 100;
1022
```

SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 1019

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1018   liquidityTokensCollected += (amount * _liquidityFee) / 100;
1019   treasureTokensCollected += (amount * _treasureFee) / 100;
1020   marketingTokensCollected += (amount * _marketingFee) / 100;
1021   reserveTokensCollected += (amount * _reserveFee) / 100;
1022   }
1023
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1019

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1018   liquidityTokensCollected += (amount * _liquidityFee) / 100;
1019   treasureTokensCollected += (amount * _treasureFee) / 100;
1020   marketingTokensCollected += (amount * _marketingFee) / 100;
1021   reserveTokensCollected += (amount * _reserveFee) / 100;
1022   }
1023
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 1019

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1018   liquidityTokensCollected += (amount * _liquidityFee) / 100;
1019   treasureTokensCollected += (amount * _treasureFee) / 100;
1020   marketingTokensCollected += (amount * _marketingFee) / 100;
1021   reserveTokensCollected += (amount * _reserveFee) / 100;
1022   }
1023
```

SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 1020

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1019   treasureTokensCollected += (amount * _treasureFee) / 100;
1020   marketingTokensCollected += (amount * _marketingFee) / 100;
1021   reserveTokensCollected += (amount * _reserveFee) / 100;
1022   }
1023
1024
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1020

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1019   treasureTokensCollected += (amount * _treasureFee) / 100;
1020   marketingTokensCollected += (amount * _marketingFee) / 100;
1021   reserveTokensCollected += (amount * _reserveFee) / 100;
1022   }
1023
1024
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 1020

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1019   treasureTokensCollected += (amount * _treasureFee) / 100;
1020   marketingTokensCollected += (amount * _marketingFee) / 100;
1021   reserveTokensCollected += (amount * _reserveFee) / 100;
1022   }
1023
1024
```

SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 1021

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1020   marketingTokensCollected += (amount * _marketingFee) / 100;
1021   reserveTokensCollected += (amount * _reserveFee) / 100;
1022   }
1023
1024   function _transferBothExcluded(
1025
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1021

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1020   marketingTokensCollected += (amount * _marketingFee) / 100;
1021   reserveTokensCollected += (amount * _reserveFee) / 100;
1022   }
1023
1024   function _transferBothExcluded(
1025
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 1021

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1020   marketingTokensCollected += (amount * _marketingFee) / 100;
1021   reserveTokensCollected += (amount * _reserveFee) / 100;
1022   }
1023
1024   function _transferBothExcluded(
1025
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 1036

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1035   }
1036   _tOwned[sender] = _tOwned[sender] - tAmount;
1037
1038   _tOwned[recipient] = _tOwned[recipient] + tTransferAmount;
1039
1040
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1038

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1037
1038   _tOwned[recipient] = _tOwned[recipient] + tTransferAmount;
1039
1040   emit Transfer(sender, recipient, tTransferAmount);
1041   }
1042
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1049

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1048   //uint256 tFee = calculateTaxFee(tAmount);
1049   uint256 tLiquidity = (tAmount * totalSwapableFee) / 100;
1050   uint256 tTransferAmount = (tAmount) - tLiquidity;
1051   return (tTransferAmount, tLiquidity);
1052   }
1053
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 1049

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1048   //uint256 tFee = calculateTaxFee(tAmount);
1049   uint256 tLiquidity = (tAmount * totalSwapableFee) / 100;
1050   uint256 tTransferAmount = (tAmount) - tLiquidity;
1051   return (tTransferAmount, tLiquidity);
1052   }
1053
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 1050

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1049   uint256 tLiquidity = (tAmount * totalSwapableFee) / 100;
1050   uint256 tTransferAmount = (tAmount) - tLiquidity;
1051   return (tTransferAmount, tLiquidity);
1052   }
1053
1054
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1055

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1054   function _takeLiquidity(uint256 tLiquidity) private {
1055   _tOwned[address(this)] = _tOwned[address(this)] + tLiquidity;
1056   //emit Transfer(address(0), address(this), tLiquidity);
1057   }
1058   //Include, Exclude from Fees and a view to confirm.
1059
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1082

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1081   {
1082   require(_minimumTokensBeforeSwap >_tTotal / 1_000_000,
"setNumTokensSellToAddToLiquidity must be greater than 0.0001% of total supply");
1083   minimumTokensBeforeSwap = _minimumTokensBeforeSwap;
1084   emit Log("We have updated minimunTokensBeforeSwap to:",minimumTokensBeforeSwap);
1085   }
1086
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1104

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1103   _reserveFee = _newReserveFee;
1104   totalSwapableFee = _treasureFee + _liquidityFee + _marketingFee + _reserveFee;
1105   emit Log("We have updated the total taxes to",totalSwapableFee);
1106
1107   }
1108
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1104

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
1103   _reserveFee = _newReserveFee;
1104   totalSwapableFee = _treasureFee + _liquidityFee + _marketingFee + _reserveFee;
1105   emit Log("We have updated the total taxes to",totalSwapableFee);
1106
1107   }
1108
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1104

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

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1103   _reserveFee = _newReserveFee;
1104   totalSwapableFee = _treasureFee + _liquidityFee + _marketingFee + _reserveFee;
1105   emit Log("We have updated the total taxes to",totalSwapableFee);
1106
1107   }
1108
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 975

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
974   address[] memory path = new address[](2);
975   path[0] = address(this);
976   path[1] = uniswapV2Router.WETH();
977   _approve(address(this), address(uniswapV2Router), tokenAmount);
978
979
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 976

low SEVERITY

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

Source File

- FpxMobile.sol

Locations

```
975   path[0] = address(this);
976   path[1] = uniswapV2Router.WETH();
977   _approve(address(this), address(uniswapV2Router), tokenAmount);
978
979   // make the swap
980
```

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