auditace.tech

AuditAce
FROM INCEPTION TO SUCCESS

Smart Contract Audit

FOR

BitcoinETFToken

DATED : 14 Dec 23'

AUDIT SUMMARY

Project name – BitcoinETFToken

Date: 14 Dec, 2023

Scope of Audit- Audit Ace was consulted to conduct the smart contract audit of the solidity source codes.

Audit Status: Passed

Issues Found

Status	Critical	High	Medium	Low	Suggestion
Open	0	0	0	0	1
Acknowledged	0	0	0	0	0
Resolved	0	0	0	0	0

USED TOOLS

Tools:

1- Manual Review:
A line by line code review has been performed by audit ace team.

2- BSC Test Network: All tests were conducted on the BSC Test network, and each test has a corresponding transaction attached to it. These tests can be found in the "Functional Tests" section of the report.

3- Slither :
The code has undergone static analysis using Slither.

Testnet version:
The tests were performed using the contract deployed on the BSC Testnet, which can be found at the following address:
https://testnet.bscscan.com/address/0xc2ad81168cc9bb3812b1c62c34d3d9c036cac311#code

Token Information

Token Address:
0x0d825acA6c9D4e1595254C419138bbaC2d4D7abB

Symbol: BTCETF

Decimals: 18

Network: BscScan

Token Type: BEP-20

Owner: 0x853ffB780c52a23baFaaC23bb6Ffe2ec9f46635A

Deployer: 0x853ffB780c52a23baFaaC23bb6Ffe2ec9f46635A

Token Supply: 100000000000000000000000000

Checksum: Ef126dac9919ad76433d7e81ee6d9a43

Testnet:
https://testnet.bscscan.com/address/0xc2ad81168cc9bb3812b1c62c34d3d9c036cac311#code

TOKEN OVERVIEW

Buy Fee: 0-5%

Sell Fee: 0-5%

Transfer Fee: 0-0%

Fee Privilege: Owner

Ownership: Owned

Minting: None

Max Tx: Yes

Blacklist: No

AUDIT METHODOLOGY

The auditing process will follow a routine as special considerations by Auditace:

- Review of the specifications, sources, and instructions provided to Auditace to make sure the contract logic meets the intentions of the client without exposing the user's funds to risk.
- Manual review of the entire codebase by our experts, which is the process of reading source code line-by-line in an attempt to identify potential vulnerabilities.
- Specification comparison is the process of checking whether the code does what the specifications, sources, and instructions provided to Auditace describe.
- Test coverage analysis determines whether the test cases are covering the code and how much code isexercised when we run the test cases.
- Symbolic execution is analysing a program to determine what inputs cause each part of a program to execute.
- Reviewing the codebase to improve maintainability, security, and control based on the established industry and academic practices.

VULNERABILITY CHECKLIST

- Return values of low-level calls
- Private modifier
- Multiple Sends
- Using Suicide
- Gas Limitand Loops
- Address hardcoded
- Exception Disorder
- Using inline assembly
- Divide before multiply
- Missing Zero Address Validation
- Compiler version not fixed
- **Gasless Send**
- Using block.timestamp
- Re-entrancy
- Tautology or contradiction
- Timestamp Dependence
- Revert/require functions
- Use of tx.origin
- Integer overflow/underflow
- Dangerous strict equalities
- Using SHA3
- Using throw

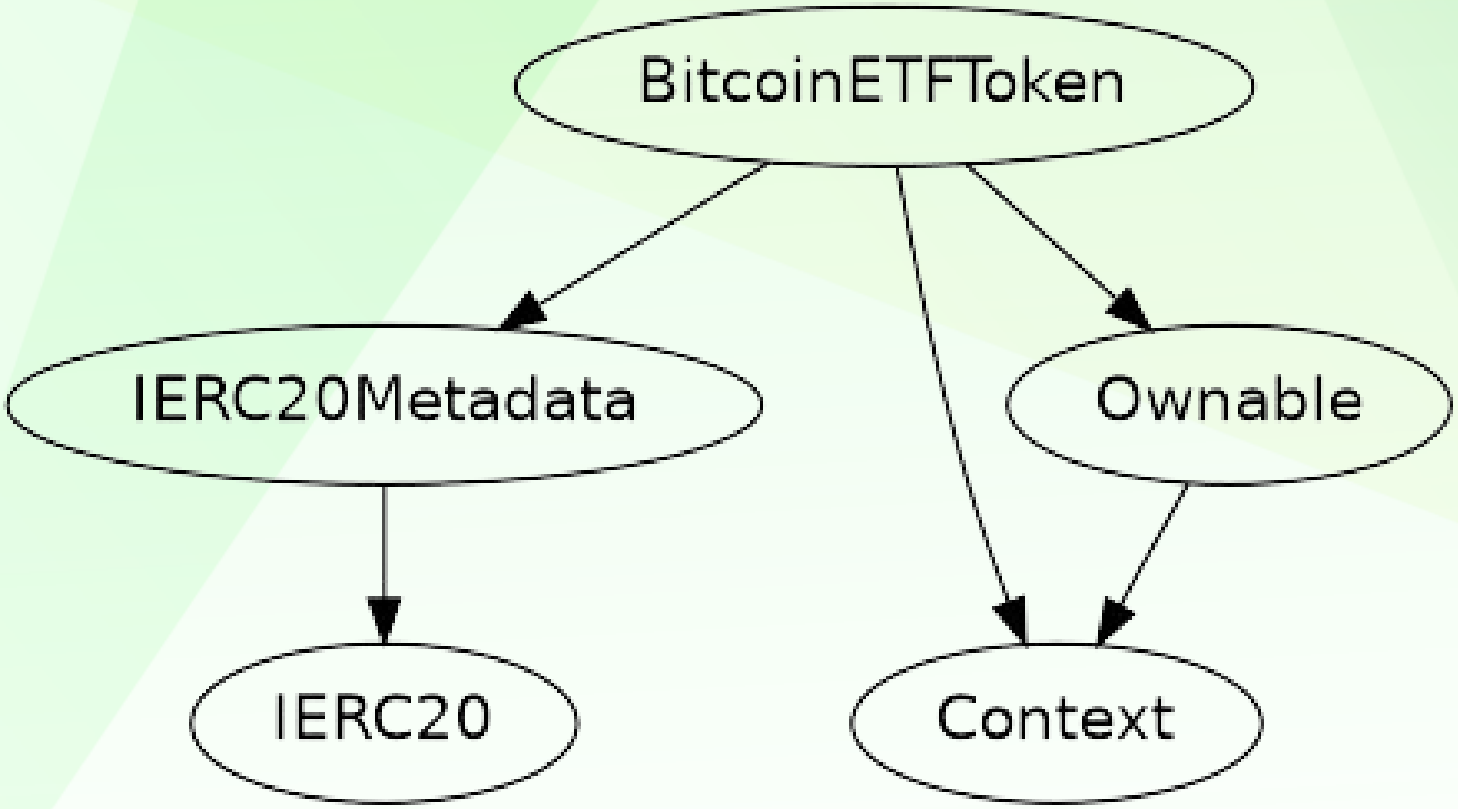
CLASSIFICATION OF RISK

Severity	Description
◆ Critical	These vulnerabilities could be exploited easily and can lead to asset loss, data loss, asset, or data manipulation. They should be fixed right away.
◆ High-Risk	A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.
◆ Medium-Risk	A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.
◆ Low-Risk	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.
◆ Gas Optimization /Suggestion	A vulnerability that has an informational character but is not affecting any of the code.

Findings

Severity	Found
◆ Critical	0
◆ High-Risk	0
◆ Medium-Risk	0
◆ Low-Risk	0
◆ Gas Optimization / Suggestions	1

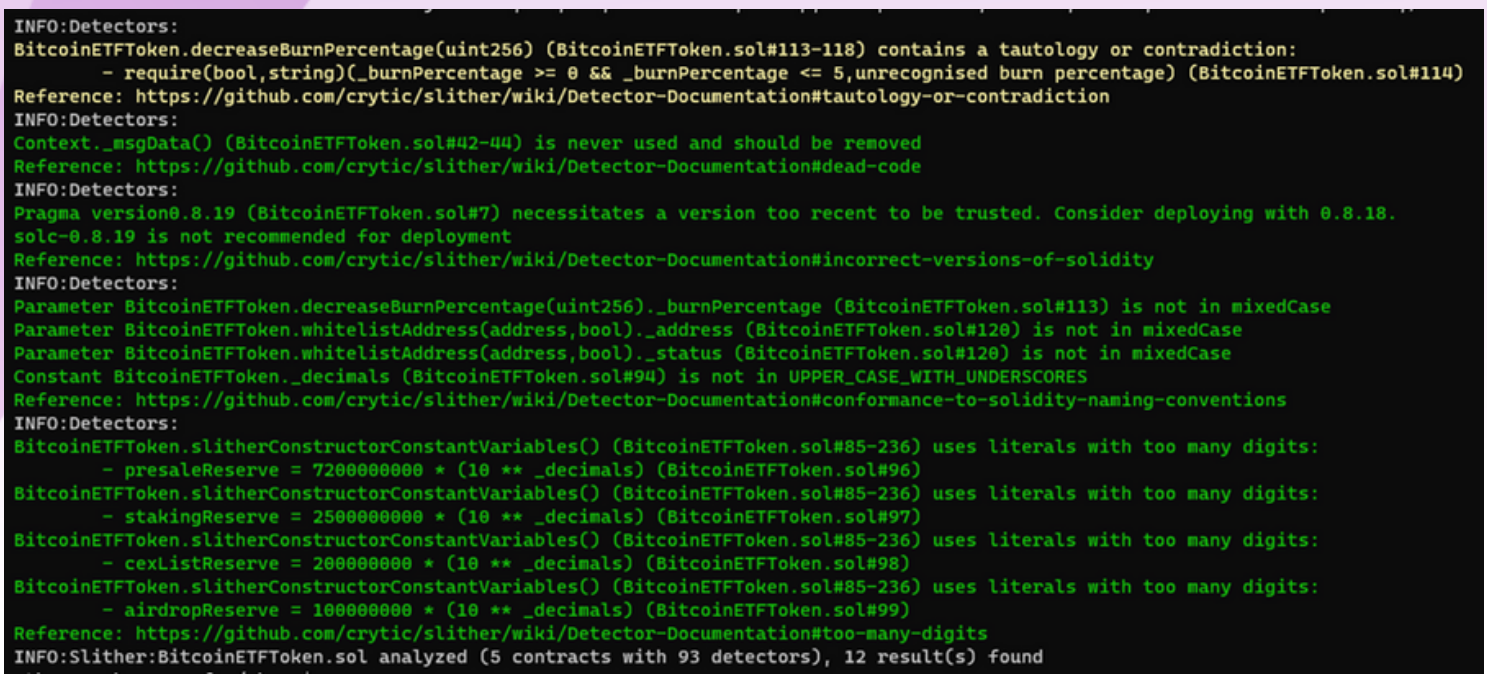
INHERITANCE TREE



POINTS TO NOTE

- The owner can renounce the ownership.
- The owner can transfer ownership.
- The owner can change the marketing wallet address.
- The owner can set buy and sell fees of not more than 5%.
- The owner can Include/exclude the address from fees.

STATIC ANALYSIS



```
INFO:Detectors:
BitcoinETFToken.decreaseBurnPercentage(uint256) (BitcoinETFToken.sol#113-118) contains a tautology or contradiction:
        - require(bool,string)(_burnPercentage >= 0 && _burnPercentage <= 5,unrecognised burn percentage) (BitcoinETFToken.sol#114)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#tautology-or-contradiction
INFO:Detectors:
Context._msgData() (BitcoinETFToken.sol#42-44) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code
INFO:Detectors:
Pragma version0.8.19 (BitcoinETFToken.sol#7) necessitates a version too recent to be trusted. Consider deploying with 0.8.18.
solc-0.8.19 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
INFO:Detectors:
Parameter BitcoinETFToken.decreaseBurnPercentage(uint256)._burnPercentage (BitcoinETFToken.sol#113) is not in mixedCase
Parameter BitcoinETFToken.whitelistAddress(address,bool)._address (BitcoinETFToken.sol#120) is not in mixedCase
Parameter BitcoinETFToken.whitelistAddress(address,bool)._status (BitcoinETFToken.sol#120) is not in mixedCase
Constant BitcoinETFToken._decimals (BitcoinETFToken.sol#94) is not in UPPER_CASE_WITH_UNDERSCORES
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
INFO:Detectors:
BitcoinETFToken.slitherConstructorConstantVariables() (BitcoinETFToken.sol#85-236) uses literals with too many digits:
        - presaleReserve = 7200000000 * (10 ** _decimals) (BitcoinETFToken.sol#96)
BitcoinETFToken.slitherConstructorConstantVariables() (BitcoinETFToken.sol#85-236) uses literals with too many digits:
        - stakingReserve = 2500000000 * (10 ** _decimals) (BitcoinETFToken.sol#97)
BitcoinETFToken.slitherConstructorConstantVariables() (BitcoinETFToken.sol#85-236) uses literals with too many digits:
        - cexListReserve = 200000000 * (10 ** _decimals) (BitcoinETFToken.sol#98)
BitcoinETFToken.slitherConstructorConstantVariables() (BitcoinETFToken.sol#85-236) uses literals with too many digits:
        - airdropReserve = 100000000 * (10 ** _decimals) (BitcoinETFToken.sol#99)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#too-many-digits
INFO:Slither:BitcoinETFToken.sol analyzed (5 contracts with 93 detectors), 12 result(s) found
```

Result => A static analysis of contract's source code has been performed using slither,

No major issues were found in the output

FUNCTIONAL TESTING

1- Approve (passed):

https://testnet.bscscan.com/tx/0x895977d7bb12c8c565687fb898ac016c9daf6aaa415bd115e11c758bf4c48215

2- Increase Allowance (passed):

https://testnet.bscscan.com/tx/0x302a237d08abe354f200908d2606ef3d92a3778b682561f74100da04cff16d57

3- Decrease Allowance (passed):

https://testnet.bscscan.com/tx/0x7c3ca22b6218d686f106e1bdf3c50c0c6fe933b29f66191e62b06f6801fbcc40

4- Decrease Burn Percentage (passed):

https://testnet.bscscan.com/tx/0x4808af26e0f2c57b0903d991d3d9dad0e2283dc85caee07f320cd09809bd665e

5- Whitelist Address (passed):

https://testnet.bscscan.com/tx/0x03f468760c2cc4115ca1543361e8623a32322fa1f262fd2a4a9a47e0dffadf11

MANUAL TESTING

Optimization

Severity: Informational

subject: Remove unused code.

Status: Open

Overview:

Unused variables are allowed in Solidity, and they do. not pose a direct security issue. It is the best practice. though to avoid them.

```
function _msgData() internal view virtual returns (bytes calldata) {
  return msg.data;
 }
```

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