QuillAudits

Audit Report
September, 2022

For

ekta

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Executive Summary

Project Name EKTA Portal NFT

Overview The Ekta Portal NFT Collection (10,000 NFTs) is an additional collection for general Ekta users to have a chance to own an Ekta Portal Node (a Portal NFT can be used to claim 1 physical portal) besides the previous 969 OG Portal Airdrop collection (which was a free NFT distribution to early investors).

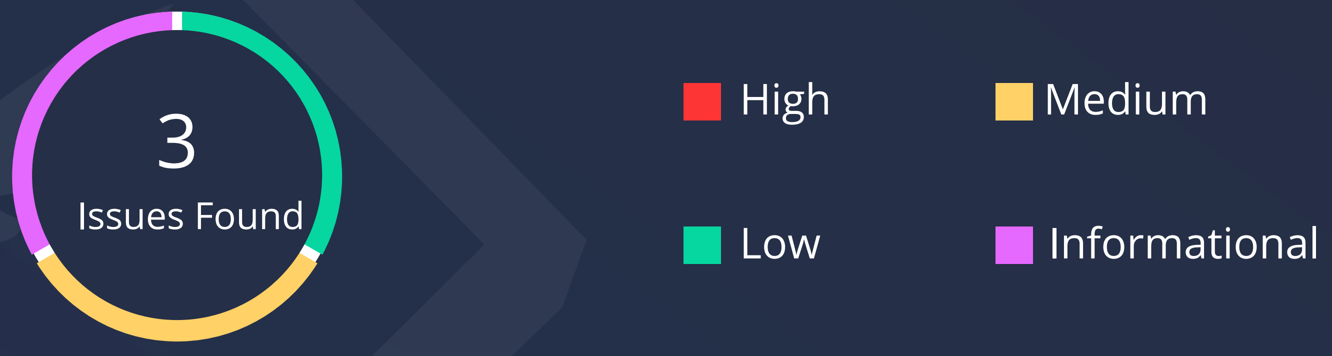
Timeline September 15, 2022 - September 26, 2022

Method Manual Review, Functional Testing, Automated Testing etc.

Scope of Audit The scope of this audit was to analyse Ekta Portal NFT codebase for quality, security, and correctness.
https://github.com/airdropgames/EKTA-NFT-Collection/commit/31e31cfbba3e327efabf8546b308762229a4e90b

Initial Commit hash: 31e31cfbba3e327efabf8546b308762229a4e90b

Fixed In 12eedfe1b7cf5c748f84621fef6bd5f9c71fa2f1



	High	Medium	Low	Informational
Open Issues	0	0	0	0
Acknowledged Issues	0	**1**	0	0
Partially Resolved Issues	0	0	0	1
Resolved Issues	**1**	0	0	**0**

Types of Severities

High

A high severity issue or vulnerability means that your smart contract can be exploited. Issues on this level are critical to the smart contract's performance or functionality, and we recommend these issues be fixed before moving to a live environment.

Medium

The issues marked as medium severity usually arise because of errors and deficiencies in the smart contract code. Issues on this level could potentially bring problems, and they should still be fixed.

Low

Low-level severity issues can cause minor impact and or are just warnings that can remain unfixed for now. It would be better to fix these issues at some point in the future.

Informational

These are severity issues that indicate an improvement request, a general question, a cosmetic or documentation error, or a request for information. There is low-to-no impact.

Types of Issues

Open

Security vulnerabilities identified that must be resolved and are currently unresolved.

Resolved

These are the issues identified in the initial audit and have been successfully fixed.

Acknowledged

Vulnerabilities which have been acknowledged but are yet to be resolved.

Partially Resolved

Considerable efforts have been invested to reduce the risk/impact of the security issue, but are not completely resolved.

Checked Vulnerabilities

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

Techniques and Methods

Throughout the audit of smart contract, care was taken to ensure:

- The overall quality of code.
- Use of best practices.
- Code documentation and comments match logic and expected behaviour.
- Token distribution and calculations are as per the intended behaviour mentioned in the whitepaper.
- Implementation of ERC-20 token standards.
- Efficient use of gas.
- Code is safe from re-entrancy and other vulnerabilities.

The following techniques, methods and tools were used to review all the smart contracts.

Structural Analysis

In this step, we have analysed the design patterns and structure of smart contracts. A thorough check was done to ensure the smart contract is structured in a way that will not result in future problems.

Static Analysis

Static analysis of smart contracts was done to identify contract vulnerabilities. In this step, a series of automated tools are used to test the security of smart contracts.

Code Review / Manual Analysis

Manual analysis or review of code was done to identify new vulnerabilities or verify the vulnerabilities found during the static analysis. Contracts were completely manually analysed, their logic was checked and compared with the one described in the whitepaper. Besides, the results of the automated analysis were manually verified.

Gas Consumption

In this step, we have checked the behaviour of smart contracts in production. Checks were done to know how much gas gets consumed and the possibilities of optimization of code to reduce gas consumption.

Tools and Platforms used for Audit

Remix IDE, Truffle, Truffle Team, Solhint, Mythril, Slither, Solidity statistic analysis.

Manual Testing

High Severity Issues

A1. Centralization Related Risks

Description

Any compromise to the owner's privileged accounts may allow a hacker to take advantage of this authority and manipulate the Ekta portal NFT contract.
The batchMint function is controlled by the owner and its given the right to mint any amount of token at any time.

Remediation

The risk describes the current project design and potentially makes iterations to improve in the security operation and level of decentralization, which in most cases cannot be resolved entirely at the present stage. We advise the Ekta Team to carefully manage the privileged account's private key to avoid any potential risks of being hacked.

In general, we strongly recommend centralized privileges or roles in the EKTA NFT contract to be improved via a decentralized mechanism or smart-contract-based accounts with enhanced security practices, e.g., multi-signature wallets.

Indicatively for private sale we recommend removing the rights to the owner of minting any amount of token and the privilege should be enabled once the private sale ends.

But considering that the ending of sale is again handled by the owner of the contract.

Status

Resolved

Medium Severity Issues

A2. DDOS attack in BatchMint and BatchTransfer

Description

When the for loop is run for a bigger range of values in the BatchMint and BatchTransfer then it raises a scenario of DDOS to the system.
When the gas prices are high then the lower range/relaistic range of minting and transfer will fail.

Remediation

Compute the current gas price when the batch mint and batch transfer call is made and the range of for loop should be handled accordingly.
This could be done with the GASPRICE opcode proposed in EIP-1559. Until EIP-1559 is implemented, it is not straightforward to compute the current gas price without an external oracle such as ETH Gas Station. However, such oracles could be DDoSed as we have seen on Feb 23rd, 2021.

Status

Acknowledged

Low Severity Issues

No issues found

Informational Issues

A3. Recommendations and Gas optimizations

Description

○ For test stake use smock Library.
○ Gas optimization
• _calculateFee should remove the safeMath wrapper in div.

• The pre-increment operation is cheaper (about 5 GAS per iteration) so use ++i instead of i++ or i+= 1 in for loop. We recommend to use pre-increment in all the for loops.

• Instead of using the && operator in a single require statement to check multiple conditions,using multiple require statements with 1 condition per require statement will save 3 GAS per &&. We recommend to implement in all the contracts.

• In for loop the default value initilization to 0 should not be there remove from all the for loop != 0 costs 6 less GAS compared to > 0 for unsigned integers in require statements with the optimizer enabled. We recommend to use !=0 instead of > 0 in all the contracts.

• In the EVM, there is no opcode for non-strict inequalities (>=, <=) and two operations are performed (> + =.) Consider replacing >= with the strict counterpart >. Recommend to follow the inequality with a strict one.

• Explicit set of values to there default state at the time of declaration is wastage of gas units.

• All the public functions which are not used internally needs to be converted to external

○ When the state gets updated the event should always get fired. We recommend to fire the events for all the state changes.

Status

Partially Resolved

Functional Testing

Contracts

- ✓ Test OG TOKEN Contract - 0x85568A5aeFFa0Ed889cF7c0311bc67674Ad3B6df
- ✓ EktaPortalNft Contract - 0xc6A29cb58904dE0C67D7c8F149A9D5359D62b5Bd

Transactions

- ✓ setIsMintingPaused to false https://rinkeby.etherscan.io/tx/0x2ddde22561d8b0959b518f5da71fc43919879981cf2df1013a637e72c9c440ef
- ✓ 100 token batch transfer by owner 2 times in private sale - Owner should not be allowed to mint tokens in private sale.
- ✓ https://rinkeby.etherscan.io/tx/0x08f232b33b7c7852d8a1ff44ed7d46acaa41b5d33cba930a3fb83f3ffb0c8e4f
- ✓ https://rinkeby.etherscan.io/tx/0x72eed6968db1718bd53962ade6142032233aa5751a03766c5f11d84ad6b9e5f3
- ✓ setPrice to 10 WEI https://rinkeby.etherscan.io/tx/0xa496156c40157945f5cb9200830b49e2a5ff13e1b7ba08121d50ba1961ceffe5
- ✓ withdraw all amount https://rinkeby.etherscan.io/tx/0x65362965af22c63e6f79c44aa42b006d4f66528403a1e05c2524bfee4b45e503
- ✓ setApprovalForAll for portalContract https://rinkeby.etherscan.io/tx/0x5c0410b450d1587eaacf979d8cca98843b5762b17b8ea88bfbf9a7db2d39488d
- ✓ batchTransfer 1,2,3,4 tokenID's https://rinkeby.etherscan.io/tx/0x267d632334610adfc447eaf4e36ce4a0b6b2284bd244c4753c69452d4231d0d8
- ✓ setPublicMintingStartTimestamp to 1663878429 https://rinkeby.etherscan.io/tx/0x02444686b974c0078bc60cf5963c4d35f197b9bd3ec80e2009c7c1392230871e
- ✓ BatchMint 1000 tokens trigger DOS attack https://rinkeby.etherscan.io/tx/0x5ae79e4d785e653599801d6e19216bbba2434209d54441ce86b885292254b1cb

✓ **batchMintForRandomUser/nonWhiteList in public sale is allowed to mint**
https://rinkeby.etherscan.io/tx/0x0d0fad1c83e03af96aa2bf69e5de187b28c1c1a7255924cdb4972050814e25f7

✓ **setPublicMintingStartTimestamp set again to 1663890320 and mode to private sale mode**
https://rinkeby.etherscan.io/tx/0xdb6ce942621a37a7d79557ca4a418379adaed05d932a7880cb12e61f23970a2e

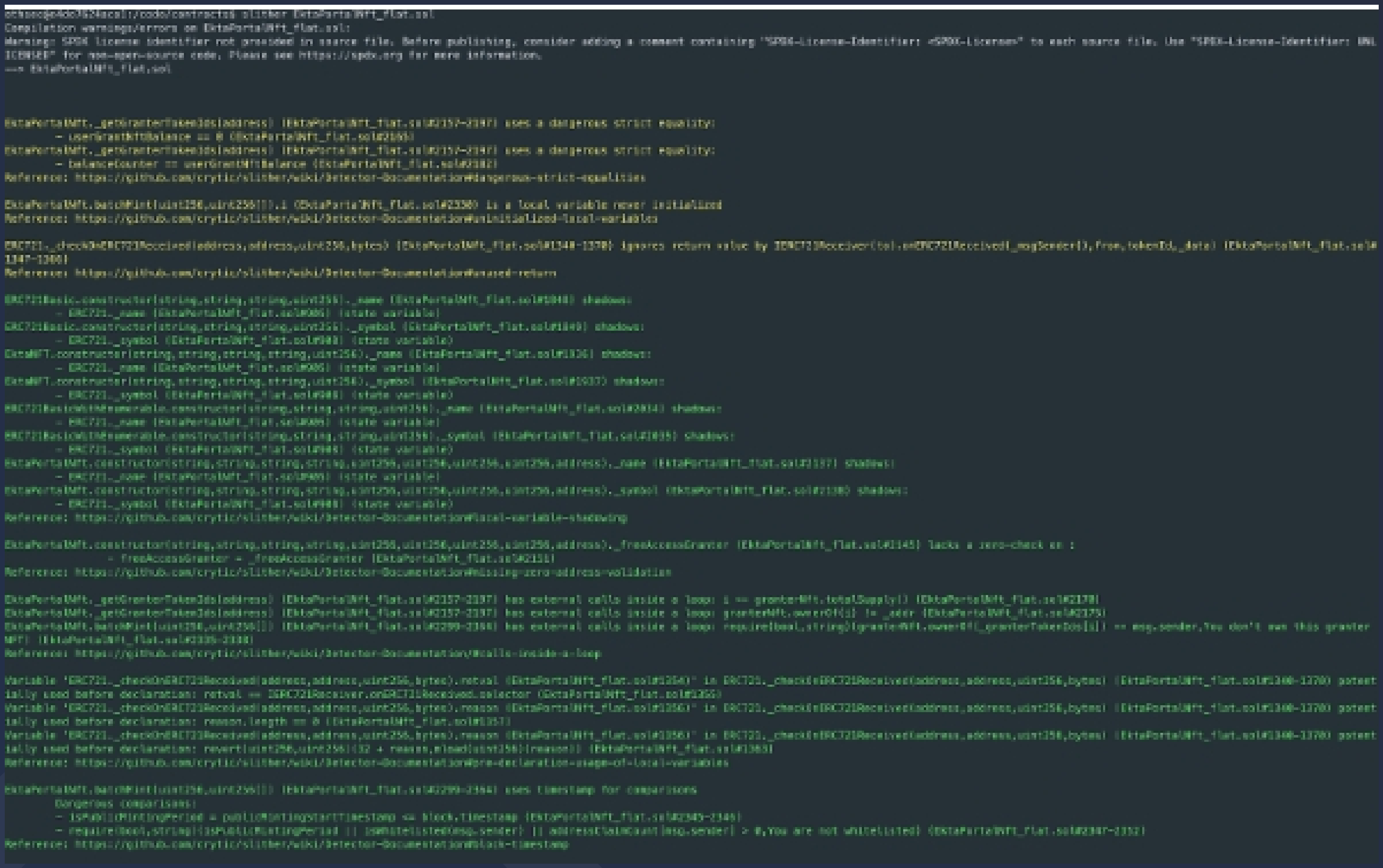
✓ **batchMintForRandomUser/nonWhiteList in private sale is not allowed to mint**
https://rinkeby.etherscan.io/tx/0x3e31c009f57dd1eacb8338e669a10dc18f39a74ec186a058d82a6e84699991fd

✓ **View Methods works fine for NFT portal contract**

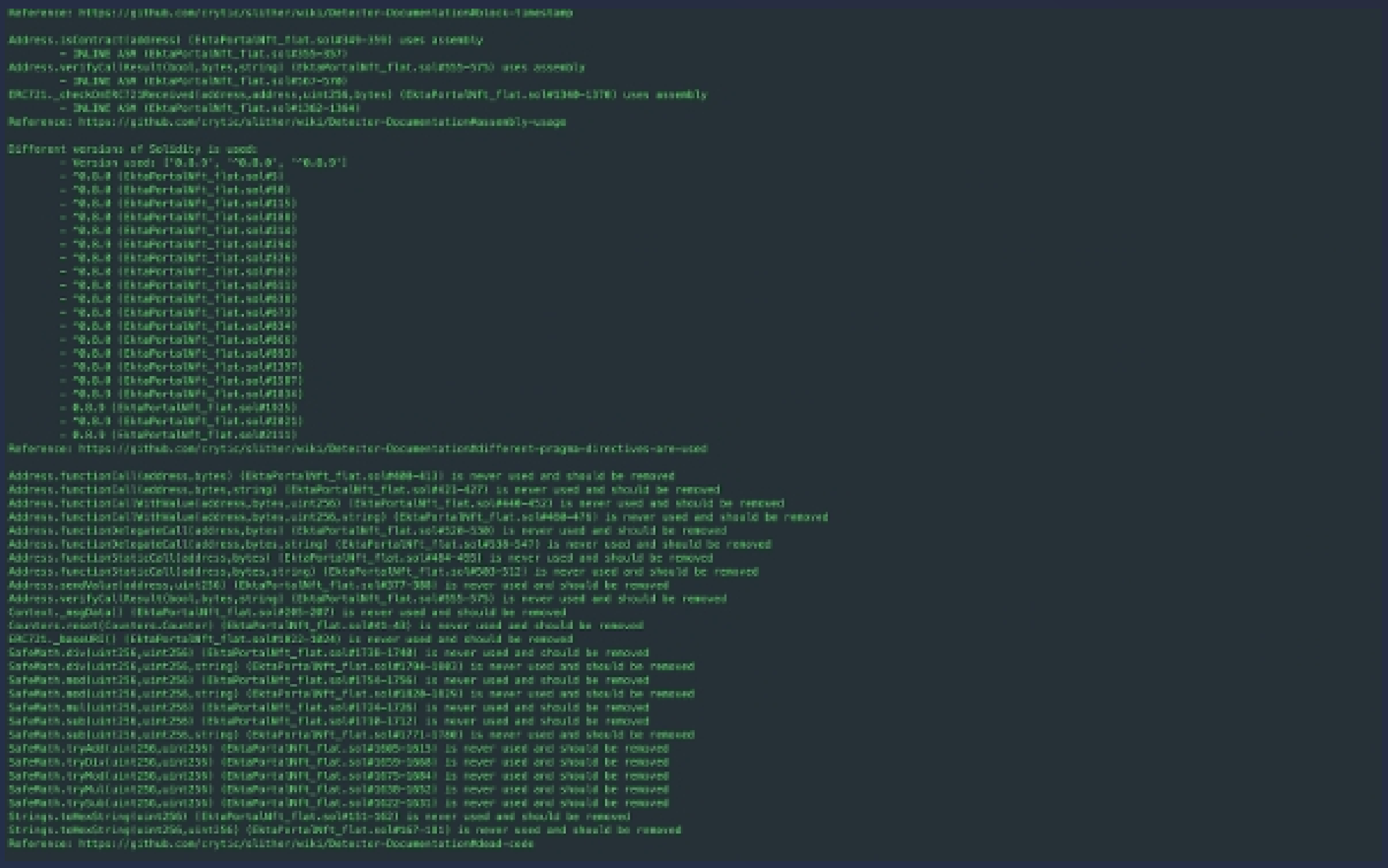
- **getMyGranterTokenIds**
- **isGranterTokenIdUsed**
- **getGranterTokenIds**
- **getAddressClaimCount**
- **getAddressMintCounttokenURI**

Automated Tests

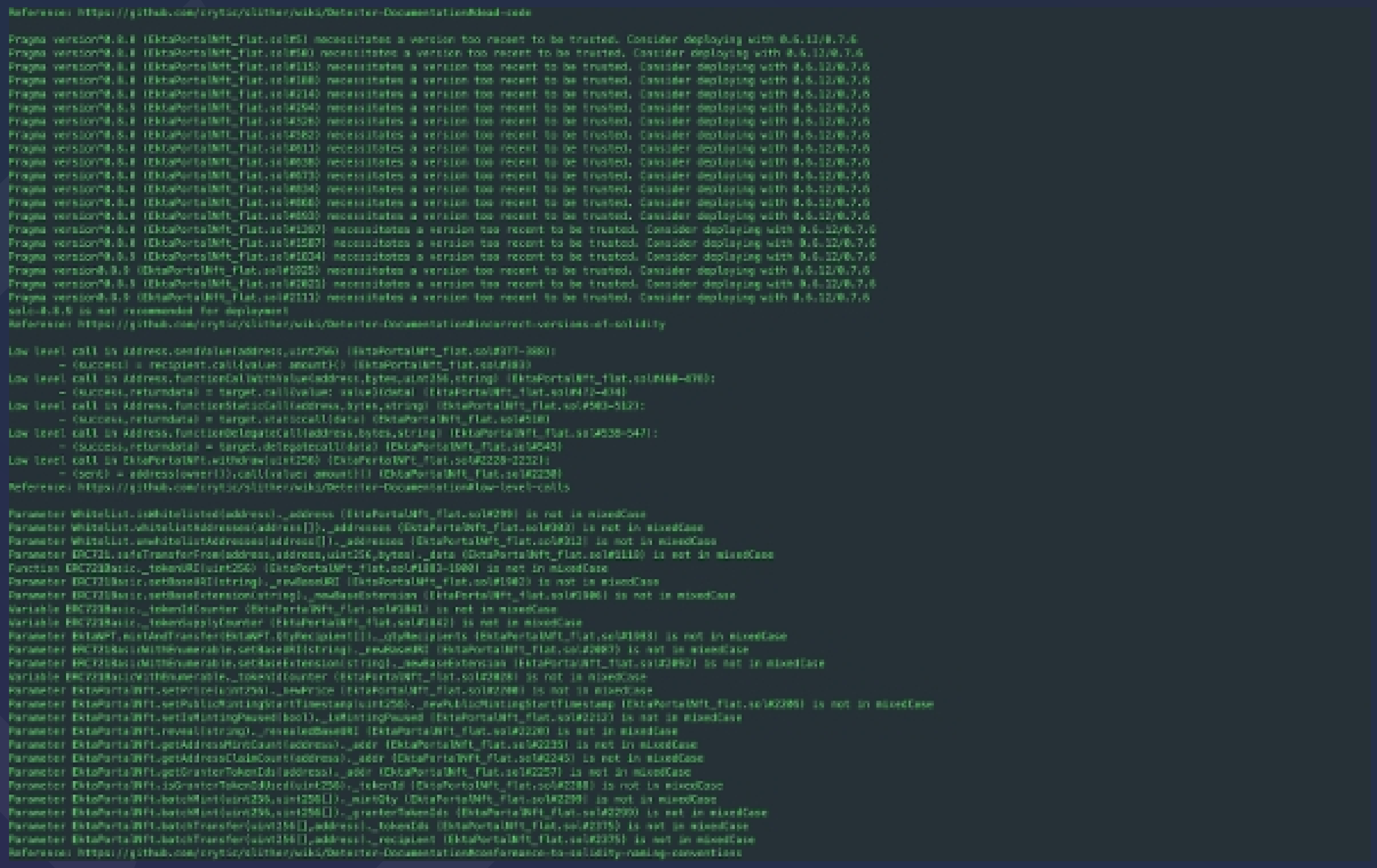
There were 75 results uncovered via Slither for the EKTA Portal NFT contract, and we checked through all of them and found them to be false positives.



```
ethsec@e4dc7624aca1:/code/contracts$ slither EktaPortalNft_flat.sol
Compilation warnings/errors on EktaPortalNft_flat.sol:
Warning: SPDX license identifier not provided in source file. Before publishing, consider adding a comment containing "SPDX-License-Identifier: <SPDX-License>" to each source file. Use "SPDX-License-Identifier: UNL
ICENSED" for non-open-source code. Please see https://spdx.org for more information.
--> EktaPortalNft_flat.sol



EktaPortalNft._getGranterTokenIds(address) (EktaPortalNft_flat.sol#2157-2197) uses a dangerous strict equality:
        - userGrantNftBalance == 0 (EktaPortalNft_flat.sol#2165)
EktaPortalNft._getGranterTokenIds(address) (EktaPortalNft_flat.sol#2157-2197) uses a dangerous strict equality:
        - balanceCounter == userGrantNftBalance (EktaPortalNft_flat.sol#2182)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dangerous-strict-equalities

EktaPortalNft.batchMint(uint256,uint256[]).i (EktaPortalNft_flat.sol#2330) is a local variable never initialized
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#uninitialized-local-variables

ERC721._checkOnERC721Received(address,address,uint256,bytes) (EktaPortalNft_flat.sol#1340-1370) ignores return value by IERC721Receiver(to).onERC721Received(_msgSender(),from,tokenId,_data) (EktaPortalNft_flat.sol#
1347-1366)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-return

ERC721Basic.constructor(string,string,string,uint256)._name (EktaPortalNft_flat.sol#1848) shadows:
        - ERC721._name (EktaPortalNft_flat.sol#985) (state variable)
ERC721Basic.constructor(string,string,string,uint256)._symbol (EktaPortalNft_flat.sol#1849) shadows:
        - ERC721._symbol (EktaPortalNft_flat.sol#988) (state variable)
EktaNFT.constructor(string,string,string,string,uint256)._name (EktaPortalNft_flat.sol#1936) shadows:
        - ERC721._name (EktaPortalNft_flat.sol#985) (state variable)
EktaNFT.constructor(string,string,string,string,uint256)._symbol (EktaPortalNft_flat.sol#1937) shadows:
        - ERC721._symbol (EktaPortalNft_flat.sol#988) (state variable)
ERC721BasicWithEnumerable.constructor(string,string,string,uint256)._name (EktaPortalNft_flat.sol#2034) shadows:
        - ERC721._name (EktaPortalNft_flat.sol#985) (state variable)
ERC721BasicWithEnumerable.constructor(string,string,string,uint256)._symbol (EktaPortalNft_flat.sol#2035) shadows:
        - ERC721._symbol (EktaPortalNft_flat.sol#988) (state variable)
EktaPortalNft.constructor(string,string,string,string,uint256,uint256,uint256,uint256,address)._name (EktaPortalNft_flat.sol#2137) shadows:
        - ERC721._name (EktaPortalNft_flat.sol#985) (state variable)
EktaPortalNft.constructor(string,string,string,string,uint256,uint256,uint256,uint256,address)._symbol (EktaPortalNft_flat.sol#2138) shadows:
        - ERC721._symbol (EktaPortalNft_flat.sol#988) (state variable)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

EktaPortalNft.constructor(string,string,string,string,uint256,uint256,uint256,uint256,address)._freeAccessGranter (EktaPortalNft_flat.sol#2145) lacks a zero-check on :
                - freeAccessGranter = _freeAccessGranter (EktaPortalNft_flat.sol#2151)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

EktaPortalNft._getGranterTokenIds(address) (EktaPortalNft_flat.sol#2157-2197) has external calls inside a loop: i <= granterNft.totalSupply() (EktaPortalNft_flat.sol#2170)
EktaPortalNft._getGranterTokenIds(address) (EktaPortalNft_flat.sol#2157-2197) has external calls inside a loop: granterNft.ownerOf(i) != _addr (EktaPortalNft_flat.sol#2175)
EktaPortalNft.batchMint(uint256,uint256[]) (EktaPortalNft_flat.sol#2299-2364) has external calls inside a loop: require(bool,string)(granterNft.ownerOf(_granterTokenIds[i]) == msg.sender,You don't own this granter
NFT) (EktaPortalNft_flat.sol#2335-2338)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation/#calls-inside-a-loop

Variable 'ERC721._checkOnERC721Received(address,address,uint256,bytes).retval (EktaPortalNft_flat.sol#1354)' in ERC721._checkOnERC721Received(address,address,uint256,bytes) (EktaPortalNft_flat.sol#1340-1370) potent
ially used before declaration: retval == IERC721Receiver.onERC721Received.selector (EktaPortalNft_flat.sol#1355)
Variable 'ERC721._checkOnERC721Received(address,address,uint256,bytes).reason (EktaPortalNft_flat.sol#1356)' in ERC721._checkOnERC721Received(address,address,uint256,bytes) (EktaPortalNft_flat.sol#1340-1370) potent
ially used before declaration: reason.length == 0 (EktaPortalNft_flat.sol#1357)
Variable 'ERC721._checkOnERC721Received(address,address,uint256,bytes).reason (EktaPortalNft_flat.sol#1356)' in ERC721._checkOnERC721Received(address,address,uint256,bytes) (EktaPortalNft_flat.sol#1340-1370) potent
ially used before declaration: revert(uint256,uint256)(32 + reason,mload(uint256)(reason)) (EktaPortalNft_flat.sol#1363)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#pre-declaration-usage-of-local-variables

EktaPortalNft.batchMint(uint256,uint256[]) (EktaPortalNft_flat.sol#2299-2364) uses timestamp for comparisons
        Dangerous comparisons:
        - isPublicMintingPeriod = publicMintingStartTimestamp <= block.timestamp (EktaPortalNft_flat.sol#2305-2306)
        - require(bool,string)(isPublicMintingPeriod || isWhitelisted(msg.sender) || addressToMintCount[msg.sender] > 0,You are not whitelisted) (EktaPortalNft_flat.sol#2307-2312)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp
```



```
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Address.isContract(address) (EktaPortalNft_flat.sol#349-359) uses assembly
        - INLINE ASM (EktaPortalNft_flat.sol#355-357)
Address.verifyCallResult(bool,bytes,string) (EktaPortalNft_flat.sol#555-575) uses assembly
        - INLINE ASM (EktaPortalNft_flat.sol#567-570)
ERC721._checkOnERC721Received(address,address,uint256,bytes) (EktaPortalNft_flat.sol#1340-1370) uses assembly
        - INLINE ASM (EktaPortalNft_flat.sol#1362-1364)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Different versions of Solidity is used:
        - Version used: ['0.8.9', '^0.8.0', '^0.8.9']
        - ^0.8.0 (EktaPortalNft_flat.sol#5)
        - ^0.8.0 (EktaPortalNft_flat.sol#58)
        - ^0.8.0 (EktaPortalNft_flat.sol#115)
        - ^0.8.0 (EktaPortalNft_flat.sol#188)
        - ^0.8.0 (EktaPortalNft_flat.sol#214)
        - ^0.8.0 (EktaPortalNft_flat.sol#294)
        - ^0.8.0 (EktaPortalNft_flat.sol#326)
        - ^0.8.0 (EktaPortalNft_flat.sol#582)
        - ^0.8.0 (EktaPortalNft_flat.sol#611)
        - ^0.8.0 (EktaPortalNft_flat.sol#638)
        - ^0.8.0 (EktaPortalNft_flat.sol#673)
        - ^0.8.0 (EktaPortalNft_flat.sol#834)
        - ^0.8.0 (EktaPortalNft_flat.sol#866)
        - ^0.8.0 (EktaPortalNft_flat.sol#893)
        - ^0.8.0 (EktaPortalNft_flat.sol#1287)
        - ^0.8.0 (EktaPortalNft_flat.sol#1587)
        - ^0.8.9 (EktaPortalNft_flat.sol#1834)
        - 0.8.9 (EktaPortalNft_flat.sol#1925)
        - ^0.8.9 (EktaPortalNft_flat.sol#2021)
        - 0.8.9 (EktaPortalNft_flat.sol#2111)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#different-pragma-directives-are-used

Address.functionCall(address,bytes) (EktaPortalNft_flat.sol#408-413) is never used and should be removed
Address.functionCall(address,bytes,string) (EktaPortalNft_flat.sol#421-427) is never used and should be removed
Address.functionCallWithValue(address,bytes,uint256) (EktaPortalNft_flat.sol#440-452) is never used and should be removed
Address.functionCallWithValue(address,bytes,uint256,string) (EktaPortalNft_flat.sol#460-475) is never used and should be removed
Address.functionDelegateCall(address,bytes) (EktaPortalNft_flat.sol#520-530) is never used and should be removed
Address.functionDelegateCall(address,bytes,string) (EktaPortalNft_flat.sol#538-547) is never used and should be removed
Address.functionStaticCall(address,bytes) (EktaPortalNft_flat.sol#484-495) is never used and should be removed
Address.functionStaticCall(address,bytes,string) (EktaPortalNft_flat.sol#503-512) is never used and should be removed
Address.sendValue(address,uint256) (EktaPortalNft_flat.sol#377-388) is never used and should be removed
Address.verifyCallResult(bool,bytes,string) (EktaPortalNft_flat.sol#555-575) is never used and should be removed
Context._msgData() (EktaPortalNft_flat.sol#205-207) is never used and should be removed
Counters.reset(Counters.Counter) (EktaPortalNft_flat.sol#45-48) is never used and should be removed
ERC721._baseURI() (EktaPortalNft_flat.sol#1022-1024) is never used and should be removed
SafeMath.div(uint256,uint256) (EktaPortalNft_flat.sol#1738-1740) is never used and should be removed
SafeMath.div(uint256,uint256,string) (EktaPortalNft_flat.sol#1794-1802) is never used and should be removed
SafeMath.mod(uint256,uint256) (EktaPortalNft_flat.sol#1754-1756) is never used and should be removed
SafeMath.mod(uint256,uint256,string) (EktaPortalNft_flat.sol#1820-1829) is never used and should be removed
SafeMath.mul(uint256,uint256) (EktaPortalNft_flat.sol#1724-1726) is never used and should be removed
SafeMath.sub(uint256,uint256) (EktaPortalNft_flat.sol#1710-1712) is never used and should be removed
SafeMath.sub(uint256,uint256,string) (EktaPortalNft_flat.sol#1771-1780) is never used and should be removed
SafeMath.tryAdd(uint256,uint256) (EktaPortalNft_flat.sol#1605-1615) is never used and should be removed
SafeMath.tryDiv(uint256,uint256) (EktaPortalNft_flat.sol#1659-1668) is never used and should be removed
SafeMath.tryMod(uint256,uint256) (EktaPortalNft_flat.sol#1675-1684) is never used and should be removed
SafeMath.tryMul(uint256,uint256) (EktaPortalNft_flat.sol#1638-1652) is never used and should be removed
SafeMath.trySub(uint256,uint256) (EktaPortalNft_flat.sol#1622-1631) is never used and should be removed
Strings.toHexString(uint256) (EktaPortalNft_flat.sol#151-162) is never used and should be removed
Strings.toHexString(uint256,uint256) (EktaPortalNft_flat.sol#167-181) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code
```



```
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version^0.8.0 (EktaPortalNft_flat.sol#5) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6
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Pragma version^0.8.0 (EktaPortalNft_flat.sol#866) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6
Pragma version^0.8.0 (EktaPortalNft_flat.sol#893) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6
Pragma version^0.8.0 (EktaPortalNft_flat.sol#1287) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6
Pragma version^0.8.0 (EktaPortalNft_flat.sol#1587) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6
Pragma version^0.8.9 (EktaPortalNft_flat.sol#1834) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6
Pragma version0.8.9 (EktaPortalNft_flat.sol#1925) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6
Pragma version^0.8.9 (EktaPortalNft_flat.sol#2021) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6
Pragma version0.8.9 (EktaPortalNft_flat.sol#2111) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6
solc-0.8.9 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Low level call in Address.sendValue(address,uint256) (EktaPortalNft_flat.sol#377-388):
        - (success) = recipient.call{value: amount}() (EktaPortalNft_flat.sol#383)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (EktaPortalNft_flat.sol#460-475):
        - (success,returndata) = target.call{value: value}(data) (EktaPortalNft_flat.sol#472-474)
Low level call in Address.functionStaticCall(address,bytes,string) (EktaPortalNft_flat.sol#503-512):
        - (success,returndata) = target.staticcall(data) (EktaPortalNft_flat.sol#510)
Low level call in Address.functionDelegateCall(address,bytes,string) (EktaPortalNft_flat.sol#538-547):
        - (success,returndata) = target.delegatecall(data) (EktaPortalNft_flat.sol#545)
Low level call in EktaPortalNft.withdraw(uint256) (EktaPortalNft_flat.sol#2228-2232):
        - (sent) = address(owner()).call{value: amount}() (EktaPortalNft_flat.sol#2230)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Parameter Whitelist.isWhitelisted(address)._address (EktaPortalNft_flat.sol#299) is not in mixedCase
Parameter Whitelist.whitelistAddresses(address[])._addresses (EktaPortalNft_flat.sol#303) is not in mixedCase
Parameter Whitelist.unwhitelistAddresses(address[])._addresses (EktaPortalNft_flat.sol#312) is not in mixedCase
Parameter ERC721.safeTransferFrom(address,address,uint256,bytes)._data (EktaPortalNft_flat.sol#1110) is not in mixedCase
Function ERC721Basic._tokenURI(uint256) (EktaPortalNft_flat.sol#1883-1900) is not in mixedCase
Parameter ERC721Basic.setBaseURI(string)._newBaseURI (EktaPortalNft_flat.sol#1902) is not in mixedCase
Parameter ERC721Basic.setBaseExtension(string)._newBaseExtension (EktaPortalNft_flat.sol#1906) is not in mixedCase
Variable ERC721Basic._tokenIdCounter (EktaPortalNft_flat.sol#1841) is not in mixedCase
Variable ERC721Basic._tokenSupplyCounter (EktaPortalNft_flat.sol#1842) is not in mixedCase
Parameter EktaNFT.mintAndTransfer(EktaNFT.QtyRecipient[])._qtyRecipients (EktaPortalNft_flat.sol#1983) is not in mixedCase
Parameter ERC721BasicWithEnumerable.setBaseURI(string)._newBaseURI (EktaPortalNft_flat.sol#2087) is not in mixedCase
Parameter ERC721BasicWithEnumerable.setBaseExtension(string)._newBaseExtension (EktaPortalNft_flat.sol#2092) is not in mixedCase
Variable ERC721BasicWithEnumerable._tokenIdCounter (EktaPortalNft_flat.sol#2028) is not in mixedCase
Parameter EktaPortalNft.setPrice(uint256)._newPrice (EktaPortalNft_flat.sol#2200) is not in mixedCase
Parameter EktaPortalNft.setPublicMintingStartTimestamp(uint256)._newPublicMintingStartTimestamp (EktaPortalNft_flat.sol#2206) is not in mixedCase
Parameter EktaPortalNft.setIsMintingPaused(bool)._isMintingPaused (EktaPortalNft_flat.sol#2212) is not in mixedCase
Parameter EktaPortalNft.reveal(string)._revealedBaseURI (EktaPortalNft_flat.sol#2220) is not in mixedCase
Parameter EktaPortalNft.getAddressMintCount(address)._addr (EktaPortalNft_flat.sol#2235) is not in mixedCase
Parameter EktaPortalNft.getAddressClaimCount(address)._addr (EktaPortalNft_flat.sol#2245) is not in mixedCase
Parameter EktaPortalNft.getGranterTokenIds(address)._addr (EktaPortalNft_flat.sol#2257) is not in mixedCase
Parameter EktaPortalNft.isGranterTokenIdUsed(uint256)._tokenId (EktaPortalNft_flat.sol#2288) is not in mixedCase
Parameter EktaPortalNft.batchMint(uint256,uint256[])._mintQty (EktaPortalNft_flat.sol#2299) is not in mixedCase
Parameter EktaPortalNft.batchMint(uint256,uint256[])._granterTokenIds (EktaPortalNft_flat.sol#2299) is not in mixedCase
Parameter EktaPortalNft.batchTransfer(uint256[],address)._tokenIds (EktaPortalNft_flat.sol#2375) is not in mixedCase
Parameter EktaPortalNft.batchTransfer(uint256[],address)._recipient (EktaPortalNft_flat.sol#2375) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
```

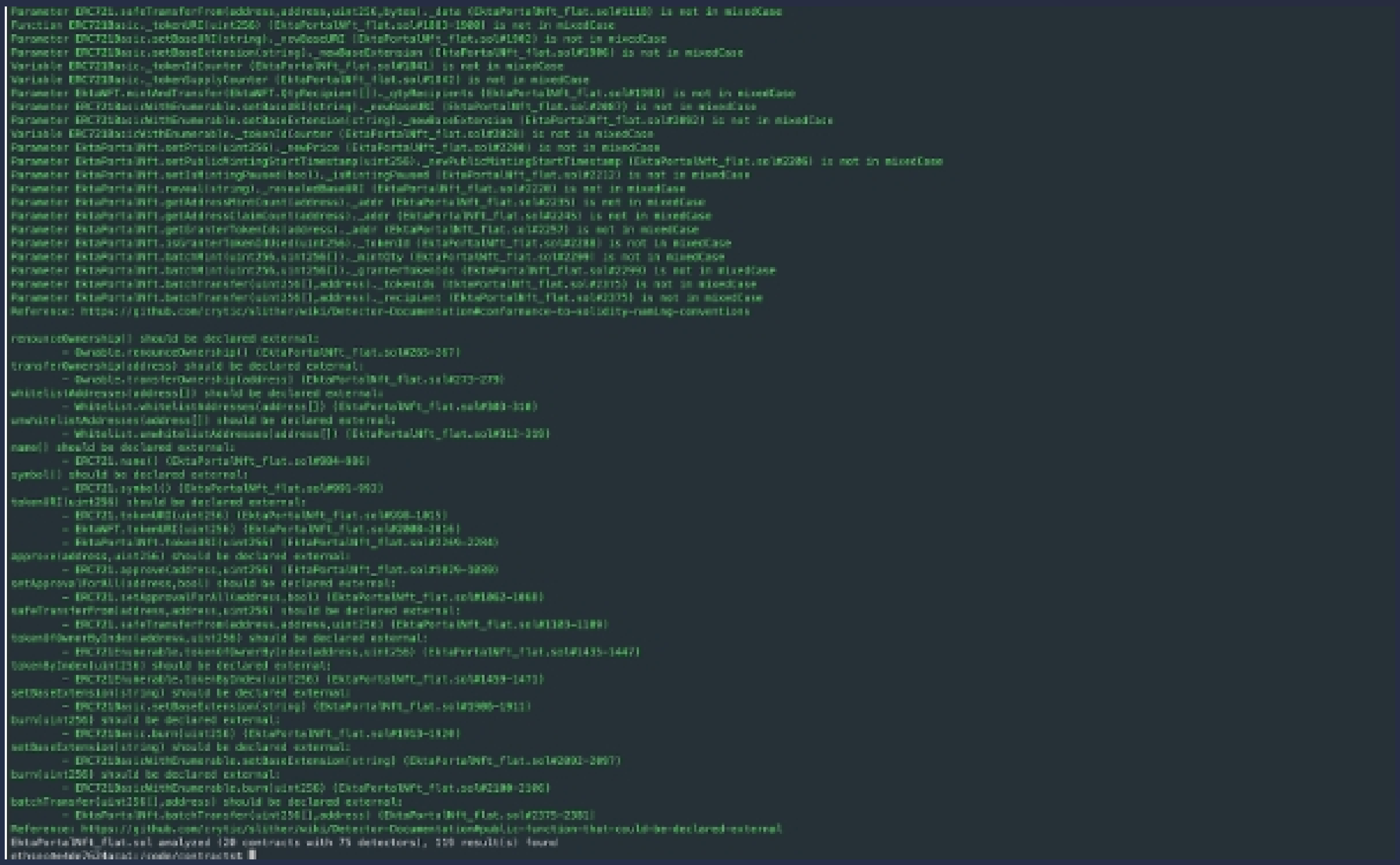

```
Parameter ERC721.safeTransferFrom(address,address,uint256,bytes)._data (EktaPortalNft_flat.sol#1118) is not in mixedCase
Function ERC721Basic._tokenURI(uint256) (EktaPortalNft_flat.sol#1883-1900) is not in mixedCase
Parameter ERC721Basic.setBaseURI(string)._newBaseURI (EktaPortalNft_flat.sol#1902) is not in mixedCase
Parameter ERC721Basic.setBaseExtension(string)._newBaseExtension (EktaPortalNft_flat.sol#1906) is not in mixedCase
Variable ERC721Basic._tokenIdCounter (EktaPortalNft_flat.sol#1841) is not in mixedCase
Variable ERC721Basic._tokenSupplyCounter (EktaPortalNft_flat.sol#1842) is not in mixedCase
Parameter EktaNFT.mintAndTransfer(EktaNFT.QtyRecipient[])._qtyRecipients (EktaPortalNft_flat.sol#1983) is not in mixedCase
Parameter ERC721BasicWithEnumerable.setBaseURI(string)._newBaseURI (EktaPortalNft_flat.sol#2087) is not in mixedCase
Parameter ERC721BasicWithEnumerable.setBaseExtension(string)._newBaseExtension (EktaPortalNft_flat.sol#2092) is not in mixedCase
Variable ERC721BasicWithEnumerable._tokenIdCounter (EktaPortalNft_flat.sol#2026) is not in mixedCase
Parameter EktaPortalNft.setPrice(uint256)._newPrice (EktaPortalNft_flat.sol#2200) is not in mixedCase
Parameter EktaPortalNft.setPublicMintingStartTimestamp(uint256)._newPublicMintingStartTimestamp (EktaPortalNft_flat.sol#2206) is not in mixedCase
Parameter EktaPortalNft.setIsMintingPaused(bool)._isMintingPaused (EktaPortalNft_flat.sol#2212) is not in mixedCase
Parameter EktaPortalNft.reveal(string)._revealedBaseURI (EktaPortalNft_flat.sol#2220) is not in mixedCase
Parameter EktaPortalNft.getAddressMintCount(address)._addr (EktaPortalNft_flat.sol#2235) is not in mixedCase
Parameter EktaPortalNft.getAddressClaimCount(address)._addr (EktaPortalNft_flat.sol#2245) is not in mixedCase
Parameter EktaPortalNft.getGranterTokenIds(address)._addr (EktaPortalNft_flat.sol#2257) is not in mixedCase
Parameter EktaPortalNft.isGranterTokenIdUsed(uint256)._tokenId (EktaPortalNft_flat.sol#2288) is not in mixedCase
Parameter EktaPortalNft.batchMint(uint256,uint256[])._mintQty (EktaPortalNft_flat.sol#2290) is not in mixedCase
Parameter EktaPortalNft.batchMint(uint256,uint256[])._granterTokenIds (EktaPortalNft_flat.sol#2290) is not in mixedCase
Parameter EktaPortalNft.batchTransfer(uint256[],address)._tokenIds (EktaPortalNft_flat.sol#2375) is not in mixedCase
Parameter EktaPortalNft.batchTransfer(uint256[],address)._recipient (EktaPortalNft_flat.sol#2375) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

renounceOwnership() should be declared external:
	- Ownable.renounceOwnership() (EktaPortalNft_flat.sol#265-267)
transferOwnership(address) should be declared external:
	- Ownable.transferOwnership(address) (EktaPortalNft_flat.sol#273-279)
whitelistAddresses(address[]) should be declared external:
	- Whitelist.whitelistAddresses(address[]) (EktaPortalNft_flat.sol#303-310)
unwhitelistAddresses(address[]) should be declared external:
	- Whitelist.unwhitelistAddresses(address[]) (EktaPortalNft_flat.sol#312-319)
name() should be declared external:
	- ERC721.name() (EktaPortalNft_flat.sol#984-986)
symbol() should be declared external:
	- ERC721.symbol() (EktaPortalNft_flat.sol#991-993)
tokenURI(uint256) should be declared external:
	- ERC721.tokenURI(uint256) (EktaPortalNft_flat.sol#998-1015)
	- EktaNFT.tokenURI(uint256) (EktaPortalNft_flat.sol#2008-2016)
	- EktaPortalNft.tokenURI(uint256) (EktaPortalNft_flat.sol#2366-2368)
approve(address,uint256) should be declared external:
	- ERC721.approve(address,uint256) (EktaPortalNft_flat.sol#1026-1030)
setApprovalForAll(address,bool) should be declared external:
	- ERC721.setApprovalForAll(address,bool) (EktaPortalNft_flat.sol#1062-1068)
safeTransferFrom(address,address,uint256) should be declared external:
	- ERC721.safeTransferFrom(address,address,uint256) (EktaPortalNft_flat.sol#1103-1109)
tokenOfOwnerByIndex(address,uint256) should be declared external:
	- ERC721Enumerable.tokenOfOwnerByIndex(address,uint256) (EktaPortalNft_flat.sol#1435-1447)
tokenByIndex(uint256) should be declared external:
	- ERC721Enumerable.tokenByIndex(uint256) (EktaPortalNft_flat.sol#1459-1471)
setBaseExtension(string) should be declared external:
	- ERC721Basic.setBaseExtension(string) (EktaPortalNft_flat.sol#1906-1911)
burn(uint256) should be declared external:
	- ERC721Basic.burn(uint256) (EktaPortalNft_flat.sol#1913-1920)
setBaseExtension(string) should be declared external:
	- ERC721BasicWithEnumerable.setBaseExtension(string) (EktaPortalNft_flat.sol#2092-2097)
burn(uint256) should be declared external:
	- ERC721BasicWithEnumerable.burn(uint256) (EktaPortalNft_flat.sol#2100-2106)
batchTransfer(uint256[],address) should be declared external:
	- EktaPortalNft.batchTransfer(uint256[],address) (EktaPortalNft_flat.sol#2375-2381)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#public-function-that-could-be-declared-external
EktaPortalNft_flat.sol analyzed (20 contracts with 75 detectors), 120 result(s) found
ethsec@[illegible]:/code/contracts$ █
```

Closing Summary

In this report, we have considered the security of the EKTA Portal NFT. We performed our audit according to the procedure described above.

One high, one medium and one informational issue are found in the Initial audit and the EKTA NFT Team has fixed the high severity Issue.

Disclaimer

QuillAudits smart contract audit is not a security warranty, investment advice, or an endorsement of the EKTA Portal NFT Platform. This audit does not provide a security or correctness guarantee of the audited smart contracts.

The statements made in this document should not be interpreted as investment or legal advice, nor should its authors be held accountable for decisions made based on them. Securing smart contracts is a multistep process. One audit cannot be considered enough. We recommend that the EKTA Portal NFT Team put in place a bug bounty program to encourage further analysis of the smart contract by other third parties.

About QuillAudits

QuillAudits is a secure smart contracts audit platform designed by QuillHash Technologies. We are a team of dedicated blockchain security experts and smart contract auditors determined to ensure that Smart Contract-based Web3 projects can avail the latest and best security solutions to operate in a trustworthy and risk-free ecosystem.

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