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# **SMART CONTRACT**

## **SECURITY AUDIT**

**CYBERCONNECT TOKEN**



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## **DISCLAIMER**

This is a comprehensive report based on our automated and manual examination of cybersecurity vulnerabilities and framework flaws of the project's smart contract. Reading the full analysis report is essential to build your understanding of project's security level. It is crucial to take note, though we have done our best to perform this analysis and report, that you should not rely on the our research and cannot claim what it states or how we created it. Before making any judgments, you have to conduct your own independent research. We will discuss this in more depth in the following disclaimer - please read it fully. **DISCLAIMER:** You agree to the terms of this disclaimer by reading this report or any portion thereof. Please stop reading this report and remove and delete any copies of this report that you download and/or print if you do not agree to these conditions. Scan and verify report's presence in the GitHub repository by a qr-code on the title page. This report is for non-reliability information only and does not represent investment advice. No one shall be entitled to depend on the report or its contents, and Inspector Lovely and its affiliates shall not be held responsible to you or anyone else, nor shall Inspector Lovely provide any guarantee or representation to any person with regard to the accuracy or integrity of the report. Without any terms, warranties or other conditions other than as set forth in that exclusion and Inspector Lovely excludes hereby all representations, warrants, conditions and other terms (including, without limitation, guarantees implied by the law of satisfactory quality, fitness for purposes and the use of reasonable care and skills). The report is provided as "as is" and does not contain any terms and conditions. Except as legally banned, Inspector Lovely disclaims all responsibility and responsibilities and no claim against Inspector Lovely is made to any amount or type of loss or damages (without limitation, direct, indirect, special, punitive, consequential or pure economic loses or losses) that may be caused by you or any other person, or any damages or damages, including without limitations (whether innocent or negligent). Security analysis is based only on the smart contracts. No applications or operations were reviewed for security. No product code has been reviewed.



## AUDIT SCOPE

<b>Name</b>	Code Review and Security Analysis Report for Cyberconnect Token Coin Smart Contract
<b>Platform</b>	Ethereum
<b>Language</b>	Solidity
<b>File 1</b>	ARKM.sol
<b>File 2</b>	EIP712.sol
<b>File 3</b>	CyberNFTBase.sol
<b>File 4</b>	CyberEngine.sol
<b>File 5</b>	EssenceNFT.sol
<b>File 6</b>	ProfileNFT.sol
<b>File 7</b>	SubscribeNFT.sol
<b>File 8</b>	Auth.sol
<b>File 9</b>	ERC721.sol
<b>File 10</b>	Owned.sol
<b>File 11</b>	RolesAuthority.sol
<b>File 12</b>	Create2Deployer.sol
<b>File 13</b>	EssenceDeployer.sol
<b>File 14</b>	ProfileDeployer.sol
<b>File 15</b>	SubscribeDeployer.sol
<b>File 16</b>	FeeMw.sol
<b>File 17</b>	PermissionedMw.sol
<b>File 18</b>	Treasury.sol
<b>File 19</b>	CollectDisallowedMw.sol
<b>File 20</b>	CollectFlexPaidMw.sol
<b>File 21</b>	CollectLimitedTimePaidMw.sol
<b>File 22</b>	CollectMerkleDropMw.sol
<b>File 23</b>	CollectOnlySubscribedMw.sol
<b>File 24</b>	CollectPaidMw.sol
<b>File 25</b>	CollectPermissionMw.sol
<b>File 26</b>	CollectPermissionPaidMw.sol
<b>File 27</b>	FeeCreationMw.sol





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<b>File 28</b>	PermissionedFeeCreationMw.sol
<b>File 29</b>	StableFeeCreationMw.sol
<b>File 30</b>	SubscribeDisallowedMw.sol
<b>File 31</b>	SubscribeOnlyOnceMw.sol
<b>File 32</b>	SubscribePaidMw.sol
<b>File 33</b>	CyberBoxNFT.sol
<b>File 34</b>	CyberGrandNFT.sol
<b>File 35</b>	CyberVault.sol
<b>File 36</b>	FrameNFT.sol
<b>File 37</b>	Link3ProfileDescriptor.sol
<b>File 38</b>	Link3ProfileDescriptorV2.sol
<b>File 39</b>	Link3ProfileDescriptorV3.sol
<b>File 40</b>	MBNFT.sol
<b>File 41</b>	MiniShardNFT.sol
<b>File 42</b>	RelationshipChecker.sol
<b>File 43</b>	CyberBoxNFTStorage.sol
<b>File 44</b>	CyberEngineStorage.sol
<b>File 45</b>	CyberGrandNFTStorage.sol
<b>File 46</b>	EssenceNFTStorage.sol
<b>File 47</b>	Link3ProfileDescriptorStorage.sol
<b>File 48</b>	MBNFTStorage.sol
<b>File 49</b>	ProfileNFTStorage.sol
<b>File 50</b>	SubscribeNFTStorage.sol
<b>File 51</b>	UpgradeableBeacon.sol
<b>File 52</b>	CYBER.sol
<b>File 53</b>	Pausable.sol
<b>File 54</b>	ReentrancyGuard.sol
<b>File 55</b>	Link3ProfileDescriptorStorageV2.sol
<b>Github commit Hash</b>	e567208187d47e00c33fa0013b11b1ae769027e7
<b>Audit Date</b>	November 11th, 2023



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# PROPOSED SMART CONTRACT FEATURES

Claimed Feature Detail	Our Observation
<b>File 1: CyberNFTBaseFlex.sol</b> <ul style="list-style-type: none"><li>This contract is the base for all NFT contracts.</li></ul>	Validated
<b>File 2: CyberNFTBase.sol</b> <ul style="list-style-type: none"><li>This contract is the base for all NFT contracts.</li></ul>	Validated
<b>File 3: CyberEngine.sol</b> <ul style="list-style-type: none"><li>This is the main entry point for the CyberConnect contract.</li></ul>	Validated
<b>File 4: EssenceNFT.sol</b> <ul style="list-style-type: none"><li>This contract is used to create an Essence NFT.</li></ul>	Validated
<b>File 5: ProfileNFT.sol</b> <ul style="list-style-type: none"><li>This contract is used to create a profile NFT.</li></ul>	Validated
<b>File 6: SubscribeNFT.sol</b> <ul style="list-style-type: none"><li>This contract is used to create a Subscribe NFT.</li><li>This will be deployed as beacon contracts for gas efficiency.</li></ul>	Validated
<b>File 7: Pausable.sol</b> <ul style="list-style-type: none"><li>The Contract module enables children to establish an emergency stop mechanism that can be activated by an authorized account.</li></ul>	Validated
<b>File 8: ReentrancyGuard.sol</b> <ul style="list-style-type: none"><li>This module is designed to prevent reentrant calls to a function.</li></ul>	Validated
<b>File 9: Auth.sol</b> <ul style="list-style-type: none"><li>The code has been adapted from Solmate's Auth.sol, with the initializer being replaced by the constructor.</li></ul>	Validated



Claimed Feature Detail	Our Observation
<b>File 10: ERC721.sol</b> <ul style="list-style-type: none"><li>The code has been adapted from Solmate's ERC721.sol, with the initializer being replaced by the constructor.</li></ul>	Validated
<b>File 11: Owned.sol</b> <ul style="list-style-type: none"><li>The code has been adapted from Solmate's Owned.sol file, with the initializer being replaced by the constructor.</li></ul>	Validated
<b>File 12: RolesAuthority.sol</b> <ul style="list-style-type: none"><li>The authority is role-based and can support up to 256 roles.</li></ul>	Validated
<b>File 13: Treasury.sol</b> <ul style="list-style-type: none"><li>This contract is used for treasury.</li></ul>	Validated
<b>File 14: CollectDisallowedMw.sol</b> <ul style="list-style-type: none"><li>This contract is a middleware to disallow any collection to the essence that uses it.</li></ul>	Validated
<b>File 15: CollectFlexPaidMw.sol</b> <ul style="list-style-type: none"><li>This contract is a middleware to only allow users to collect when they pay a flex fee to the essence owner.</li></ul>	Validated
<b>File 16: CollectLimitedTimePaidMw.sol</b> <ul style="list-style-type: none"><li>This contract is a middleware to only allow users to collect when they pay a certain fee to the essence owner.</li></ul>	Validated
<b>File 17: CollectMerkleDropMw.sol</b> <ul style="list-style-type: none"><li>This contract is a middleware to only allow users to collect an essence given the correct merkle proof.</li></ul>	Validated
<b>File 18: CollectOnlySubscribedMw.sol</b> <ul style="list-style-type: none"><li>This contract is a middleware to allow the address to collect an essence only if they are subscribed.</li></ul>	Validated



Claimed Feature Detail	Our Observation
<b>File 20: CollectPermissionMw.sol</b> <ul style="list-style-type: none"><li>This contract is a middleware to allow an address to collect an essence only if they have a valid signature from the essence owner.</li></ul>	Validated
<b>File 21: CollectPermissionPaidMw.sol</b> <ul style="list-style-type: none"><li>This contract is a middleware to allow an address to collect an essence only if they have a valid signature from the signer and pay certain fees.</li></ul>	Validated
<b>File 22: FeeCreationMw.sol</b> <ul style="list-style-type: none"><li>This contract is a middleware to create profiles with a fee.</li></ul>	Validated
<b>File 23: PermissionedFeeCreationMw.sol</b> <ul style="list-style-type: none"><li>This contract is a middleware to create permissioned fees.</li></ul>	Validated
<b>File 24: StableFeeCreationMw.sol</b> <ul style="list-style-type: none"><li>This contract is a middleware to charge a stable fee (USD) when creating a profile.</li></ul>	Validated
<b>File 25: SubscribeDisallowedMw.sol</b> <ul style="list-style-type: none"><li>This contract is a middleware to disallow any subscriptions to the user.</li></ul>	Validated
<b>File 26: SubscribeOnlyOnceMw.sol</b> <ul style="list-style-type: none"><li>This contract is a middleware to allow the address to subscribe only once to another address.</li></ul>	Validated
<b>File 26: SubscribePaidMw.sol</b> <ul style="list-style-type: none"><li>This contract is a middleware to only allow users to subscribe when they pay a certain fee to the profile owner.</li></ul>	Validated
<b>File 27: CyberBoxNFT.sol</b> <ul style="list-style-type: none"><li>This contract is used to create CyberBox NFT.</li></ul>	Validated





Claimed Feature Detail	Our Observation
<b>File 28: CyberGrandNFT.sol</b> <ul style="list-style-type: none"><li>This contract is used to create CyberGrand NFT.</li></ul>	Validated
<b>File 29: CyberVault.sol</b> <ul style="list-style-type: none"><li>This contract is used to create CyberVault.</li></ul>	Validated
<b>File 30: Link3ProfileDescriptor.sol</b> <ul style="list-style-type: none"><li>This contract is used to create profile NFT token uri.</li></ul>	Validated
<b>File 31: Link3ProfileDescriptorV2.sol</b> <ul style="list-style-type: none"><li>This contract is used to create profile NFT token uri.</li></ul>	Validated
<b>File 32: Link3ProfileDescriptorV3.sol</b> <ul style="list-style-type: none"><li>This contract is used to create profile NFT token uri.</li></ul>	Validated
<b>File 33: MBNFT.sol</b> <ul style="list-style-type: none"><li>This contract is used to create MB NFT.</li></ul>	Validated
<b>File 34: MiniShardNFT.sol</b> <ul style="list-style-type: none"><li>The contract-deploying account will be granted minter and pauser roles, along with the default admin role, enabling it to grant these roles to other accounts.</li></ul>	Validated
<b>File 35: CYBER.sol</b> <ul style="list-style-type: none"><li>Name: CyberConnect</li><li>Symbol: CYBER</li><li>Decimals: 18</li><li>Total supply of cyber token is 100 Million.</li></ul> <b>Ownership control:</b> <ul style="list-style-type: none"><li>The new TokenPool address can be set by the owner.</li><li>Current owner can transfer the ownership.</li><li>Owner can renounce ownership.</li></ul>	Validated

## AUDIT SUMMARY

According to the standard audit assessment, Customer`s solidity based smart contracts are **“Secured”**. Also, these contracts contain owner control, which does not make them fully decentralized.

Insecure

Poor Secured

**Secure**

⤴  
You are here

Well-Secured

We used various tools like Slither, Solhint and Remix IDE. At the same time this finding is based on critical analysis of the manual audit.

All issues found during automated analysis were manually reviewed and applicable vulnerabilities are presented in the Audit overview section. General overview is presented in AS-IS section and all identified issues can be found in the Audit overview section.

**We found 0 critical, 0 high, 0 medium and 0 low and 2 very low level issues.**

**Investors Advice:** Technical audit of the smart contract does not guarantee the ethical nature of the project. Any owner controlled functions should be executed by the owner with responsibility. All investors/users are advised to do their due diligence before investing in the project.





# KEY TECHNICAL METRICS

MAIN CATEGORY	SUBCATEGORY	RESULT
Contract Programming	Solidity version is not specified	Passed
	Solidity version is too old	Passed
	Integer overflow/underflow	Passed
	Function input parameters lack check	Passed
	Function input parameters check bypass	Passed
	Function access control lacks management	Passed
	Critical operation lacks event log	Passed
	Human/contract checks bypass	Passed
	Random number generation/use vulnerability	N/A
	Fallback function misuse	Passed
	Race condition	Passed
	Logical vulnerability	Passed
	Features claimed	Passed
	Other programming issues	Passed
Code Specification	Function visibility not explicitly declared	Passed
	Var. storage location not explicitly declared	Passed
	Use keywords/functions to be deprecated	Passed
	Unused code	Passed
Gas Optimization	"Out of Gas" Issue	Moderated
	High consumption 'for/while' loop	Passed
	High consumption 'storage' storage	Passed
	Assert() misuse	Passed
Business Risk	The maximum limit for mintage is not set	Passed
	"Short Address" Attack	Passed
	"Double Spend" Attack	Passed

Overall Audit Result: **PASSED**



## CODE QUALITY

This audit scope has 1 smart contract. Smart contract contains Libraries, Smart contracts, inherits and Interfaces. This is a compact and well written smart contract.

The libraries in CyberConnect are part of its logical algorithm. A library is a different type of smart contract that contains reusable code. Once deployed on the blockchain (only once), it is assigned a specific address and its properties / methods can be reused many times by other contracts in the CyberConnect.

The EtherAuthority team has not provided scenario and unit test scripts, which would have helped to determine the integrity of the code in an automated way.

Code parts are well commented on in the smart contracts. Ethereum's NatSpec commenting style is recommended.

## DOCUMENTATION

We were given a CyberConnect smart contract code in the form of a [bscscan](#) web link.

As mentioned above, code parts are well commented on. and the logic is straightforward. So it is easy to quickly understand the programming flow as well as complex code logic. Comments are very helpful in understanding the overall architecture of the protocol.

Another source of information was its official website: <https://cyberconnect.me> which provided rich information about the project architecture and tokenomics.

## USE OF DEPENDENCIES

As per our observation, the libraries are used in this smart contract infrastructure that are based on well known industry standard open source projects.

Apart from libraries, its functions are not used in external smart contract calls.





## PROJECT WEBSITE PERFORMANCE AUDIT

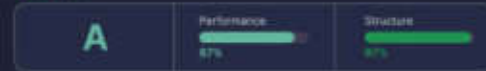
### Performance Metrics



### Browser Timings

- Redirect Duration: 0ms
- Time to First Byte: 109ms
- DOM Content Loaded: 254s
- Connection Duration: 80ms
- First Paint: 232s
- Onload Time: 877s
- Backend Duration: 29ms
- DOM Interactive Time: 232
- Fully Loaded Time: 1.4s

### Grade



### Web Vitals



### Top Issues

IMPACT	AUDIT	Details
LOW	Allow back/forward cache restoration	1 failure reason
LOW	Avoid an excessive DOM size (TBT)	780 elements
LOW	Reduce JavaScript execution time (TBT)	536ms spent executing JavaScript
LOW	Avoid enormous network payloads LCP (LCP)	Total size was 1.36MB
LOW	Avoid long main-thread tasks (TBT)	2 long tasks found





## Level of Criticality

RISK LEVEL	DESCRIPTION
<b>Critical</b>	Critical vulnerabilities are usually straightforward to exploit and can lead to token loss etc.
<b>High</b>	High-level vulnerabilities are difficult to exploit; however, they also have significant impact on smart contract execution, e.g. public access to crucial
<b>Med</b>	Medium-level vulnerabilities are important to fix; however, they can't lead to tokens lose
<b>Low</b>	Low-level vulnerabilities are mostly related to outdated, unused etc. code snippets, that can't have significant impact on execution
<b>Lowest / Code Style / Best Practice</b>	Lowest-level vulnerabilities, code style violations and info statements can't affect smart contract execution and can be ignored.



## AUDIT FINDINGS TABLE

	Total	Resolved	UnResolved	Acknowledged
High Severity Issues Found	0	0	0	0
Moderate Severity Issues Found	0	0	0	0
Medium Severity Issues	0	0	0	0
Low Severity Issues	0	0	0	0
Informational Observations	2	0	2	0

The CyberConnect - Audit report identifies 2 issues with varying severity levels, discovered through manual review and static analysis techniques, alongside rigorous code reviews, highlighting the need for further investigation and vulnerability identification.

The smart contract is considered to **pass the audit**, as of the audit date, if no high severity or moderate severity issues are found.



# AUDIT FINDINGS

Critical Severity	No Critical severity vulnerabilities were found.
High Severity	No High severity vulnerabilities were found.
Medium	No Medium severity vulnerabilities were found.
Low	No Low severity vulnerabilities were found.
Very Low / Informational / Best practices:	<p>1. Solidity Version: CYBER.sol</p> <pre>6 pragma solidity 0.8.14;</pre> <p>Use the latest solidity version.</p> <p><b>Resolution:</b> Use the latest solidity version while contract deployment to prevent any compiler version level bugs.</p> <p>2. Gas Optimization:</p> <p>The public functions that are never called by the contract could be declared external.</p> <p><b>CYBER.sol</b></p> <ul style="list-style-type: none"><li>• mint</li></ul> <p><b>Ownable.sol</b></p> <ul style="list-style-type: none"><li>• renounceOwnership</li><li>• transferOwnership</li></ul> <p><b>Resolution:</b> We suggest declaring these all functions external for better Gas optimization.</p>





# CENTRALIZATION

This smart contract has some functions which can be executed by the Admin (Owner) only. If the admin wallet private key would be compromised, then it would create trouble. Following are Admin functions:

## **CyberEngine.sol**

- allowProfileMw: Profile middleware address can be allowed by the authorized owner.
- allowSubscribeMw: Subscribe middleware address can be allowed by the authorized owner.
- allowEssenceMw: Essence middleware address can be allowed by the authorized owner.
- createNamespace: Create a Namespace by the authorized owner.
- upgradeSubscribeNFT: Subscribe NFT can be updated by the authorized owner.
- upgradeEssenceNFT: Essence NFT can be updated by the authorized owner.
- upgradeProfileNFT: Profile NFT can be updated by the authorized owner.
- setProfileMw: Profile middleware address can be updated by the authorized owner.

## **EssenceNFT.sol**

- mint: Mint a new token by the profile owner.

## **ProfileNFT.sol**

- pause: Pause a contract token by the namespace owner.
- setNamespaceOwner: A new Namespace owner address can be set by the namespace owner.
- setNFTDescriptor: NFT Descriptor address can be set by the namespace owner.
- setAvatar: Avatar Id can be set by the profile owner or operator.
- setOperatorApproval: Operator approval can be set by the profile owner.
- setMetadata: Metadata can be set by the profile owner or operator.
- setSubscribeData: Subscribe data can be set by the profile owner or operator.
- setEssenceData: Essence data can be set by the profile owner or operator.
- setPrimaryProfile: Primary profile can be set by the profile owner or operator.

## **SubscribeNFT.sol**

- mint: Mint a new token by the profile owner.



#### **Auth.sol**

- **setOwner:** A new owner address can be set by the current owner.

#### **Owned.sol**

- **setOwner:** A new owner address can be set by the current owner.

#### **RolesAuthority.sol**

- **mint:** Mint a new token by the owner.
- **setPublicCapability:** Public capability can be updated by the authorized owner.
- **setRoleCapability:** Role capability can be updated by the authorized owner.
- **setUserRole:** User role address can be updated by the authorized owner.

#### **Treasury.sol**

- **setTreasuryAddress:** Set the treasury address by the owner.
- **setTreasuryFee:** Set the treasury fee by the owner.
- **allowCurrency:** Allows a currency that will be used in a transaction by the owner.

#### **CollectFlexPaidMw.sol**

- **setEssenceMwData:** Essence middleware data can be set by the namespace owner.
- **preProcess:** Processes the transaction from the essence collector to the essence owner by the namespace owner.

#### **CollectLimitedTimePaidMw.sol**

- **setEssenceMwData:** Essence middleware data can be set by the namespace owner.
- **preProcess:** Processes the transaction from the essence collector to the essence owner by the namespace owner.

#### **CollectPaidMw.sol**

- **setEssenceMwData:** Essence middleware data can be set by the namespace owner.
- **preProcess:** Processes the transaction from the essence collector to the essence owner by the namespace owner.

#### **CollectPermissionPaidMw.sol**

- **setEssenceMwData:** Essence middleware data can be set by the namespace owner.
- **preProcess:** Processes the transaction from the essence collector to the essence owner by the namespace owner.

#### **FeeCreationMw.sol**

- **preProcess:** Processes the transaction from the essence collector to the essence owner by the namespace owner.
- **setProfileMwData:** Profile middleware data can be set by the engine owner.



#### **StableFeeCreationMw.sol**

- `preProcess`: Processes the transaction from the essence collector to the essence owner by the namespace owner.
- `setProfileMwData`: Profile middleware data can be set by the engine owner.

#### **SubscribePaidMw.sol**

- `setSubscribeMwData`: Subscribe middleware data can be set by the namespace owner.
- `preProcess`: Processes the transaction from the essence collector to the essence owner by the namespace owner.

#### **CyberBoxNFT.sol**

- `pause`: Changes the pause state of the box nft by the owner.
- `setSigner`: Set the new signer address by the owner.

#### **CyberGrandNFT.sol**

- `pause`: Changes the pause state of the box nft by the owner.
- `setSigner`: Set the new signer address by the owner.
- `setTokenURI`: Sets the new tokenURI by the owner.

#### **CyberVault.sol**

- `setSigner`: Set the new signer address by the owner.

#### **Link3ProfileDescriptor.sol**

- `setAnimationTemplate`: Animation template can be set by the owner.

#### **MBNFT.sol**

- `pause`: Changes the pause state of the box nft by the owner.
- `setTokenURI`: Set the new token URI by the owner.
- `setBoxAddr`: Set the new box and frame contract address by the owner.

#### **CYBER.sol**

- `mint`: Mint a new token by the owner.

#### **Ownable.sol**

- `_checkOwner`: Throws if the sender is not the owner.
- `renounce Ownership`: Deleting ownership will leave the contract without an owner, removing any owner-only functionality.
- `transferOwnership`: The current owner can transfer ownership of the contract to a new account.

**To make the smart contract 100% decentralized, we suggest renouncing ownership of the smart contract once its function is completed.**



## CONCLUSION

We were given a contract code in the form of bscscan web links. And we have used all possible tests based on given objects as files. We had observed 2 very low issues in the smart contracts, but those are not critical. So, **it's good to go for the production.**

Since possible test cases can be unlimited for such smart contracts protocol, we provide no such guarantee of future outcomes. We have used all the latest static tools and manual observations to cover maximum possible test cases to scan everything.

Smart contracts within the scope were manually reviewed and analyzed with static analysis tools. Smart Contract's high-level description of functionality was presented in the As-is overview section of the report.

Audit report contains all found security vulnerabilities and other issues in the reviewed code.

Security state of the reviewed smart contract, based on standard audit procedure scope, is **"Secured"**.

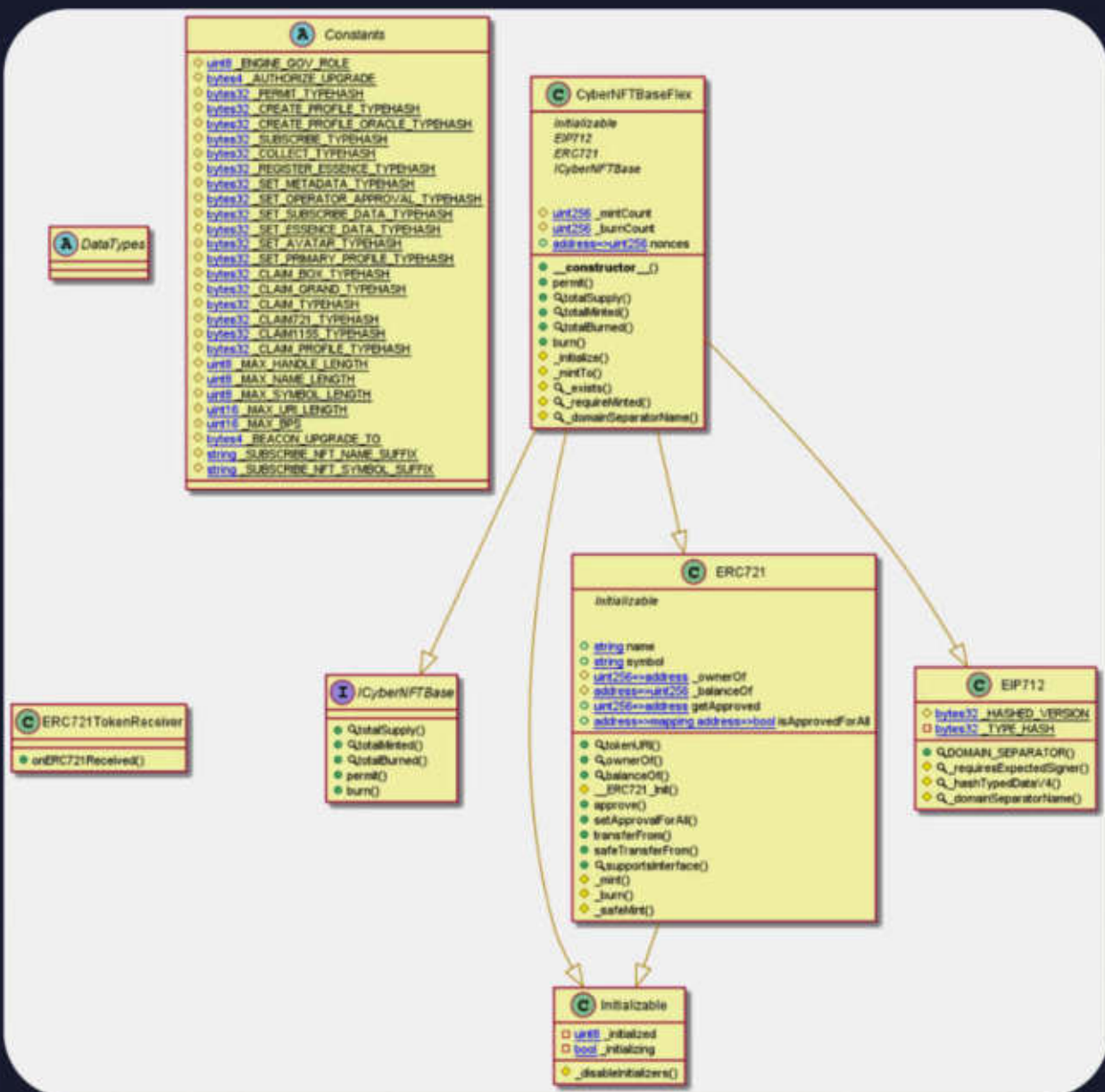




# ADDENDUM

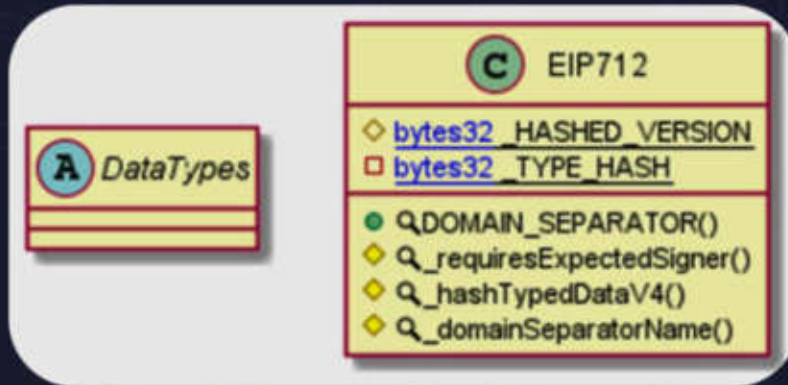
## Code Flow Diagram - CyberConnect

### CyberNFTBaseFlex Diagram

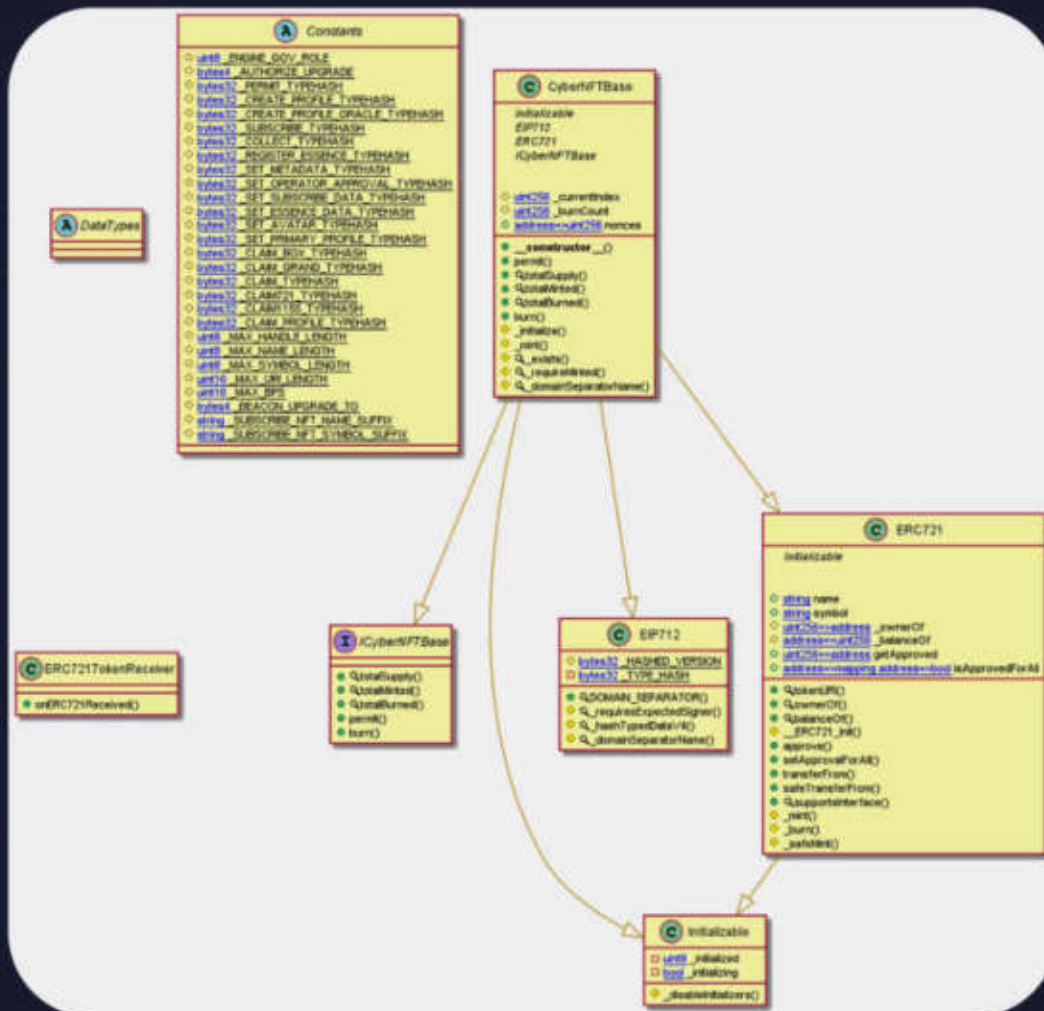




### EIP712 Diagram

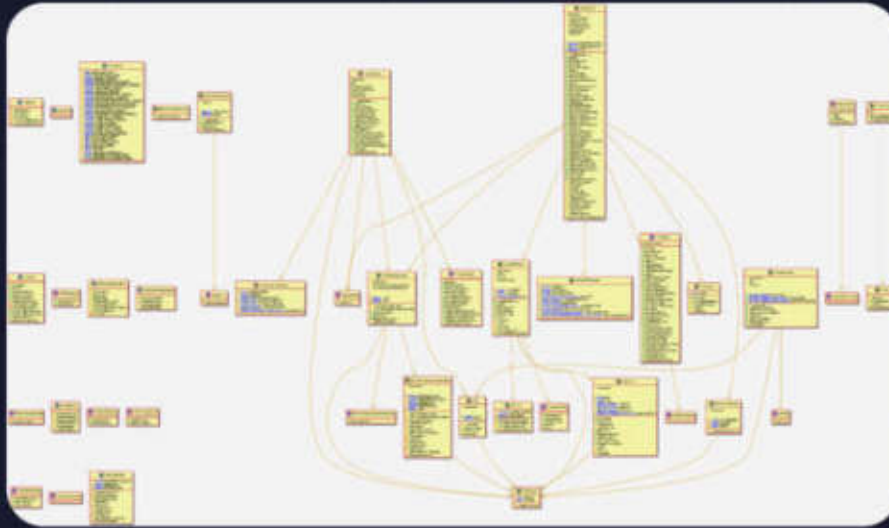


### CyberNFTBase Diagram

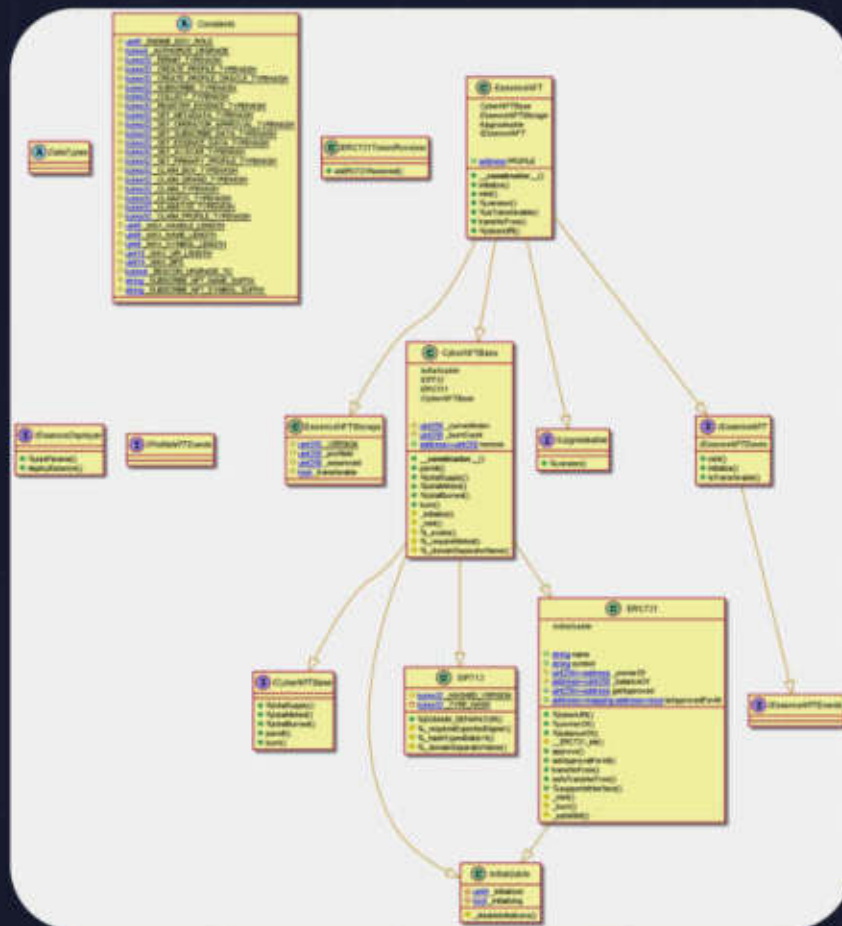




### CyberEngine Diagram



### EssenceNFT Diagram

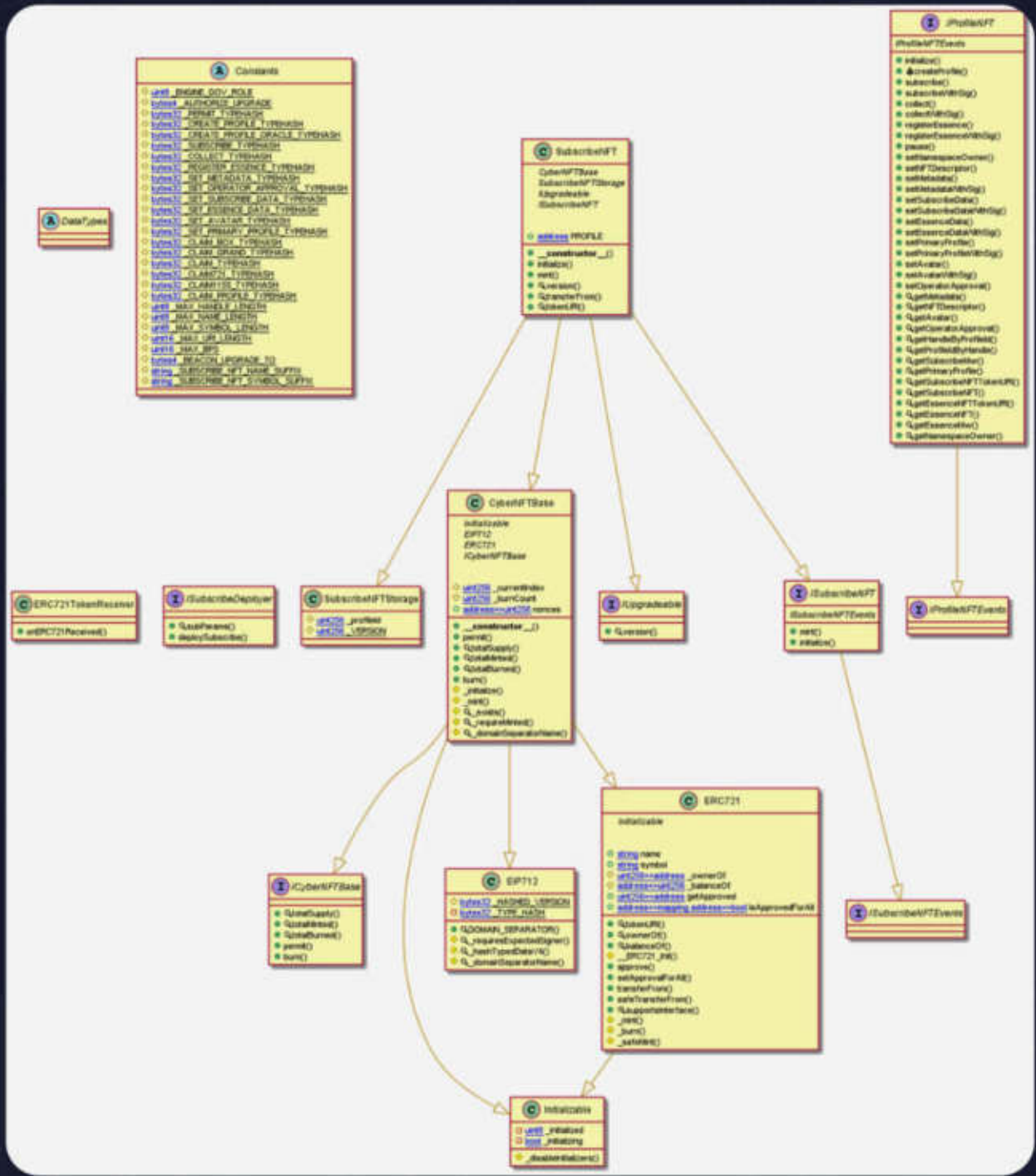






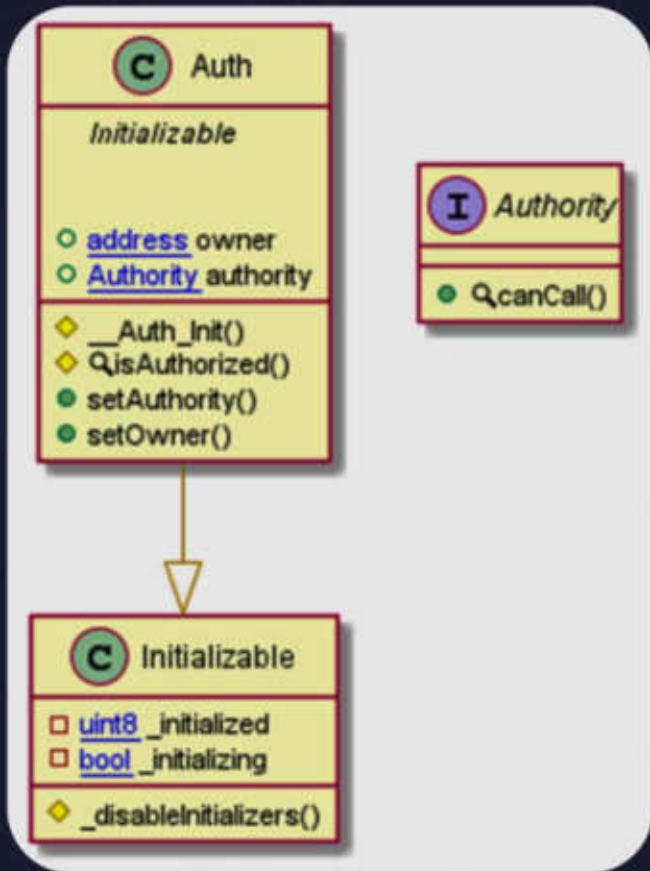


### SubscribeNFT Diagram

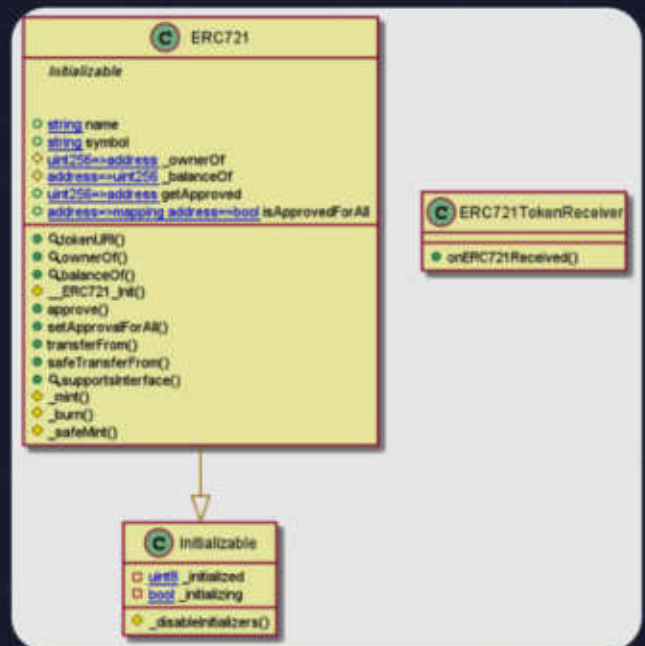




### Auth Diagram

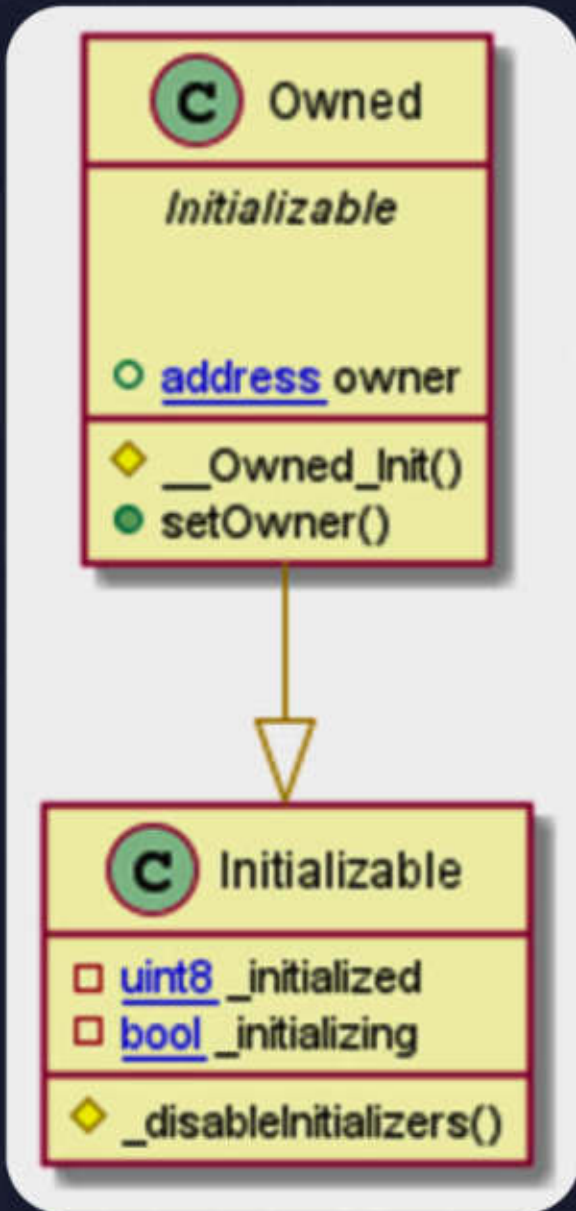


### ERC721 Diagram

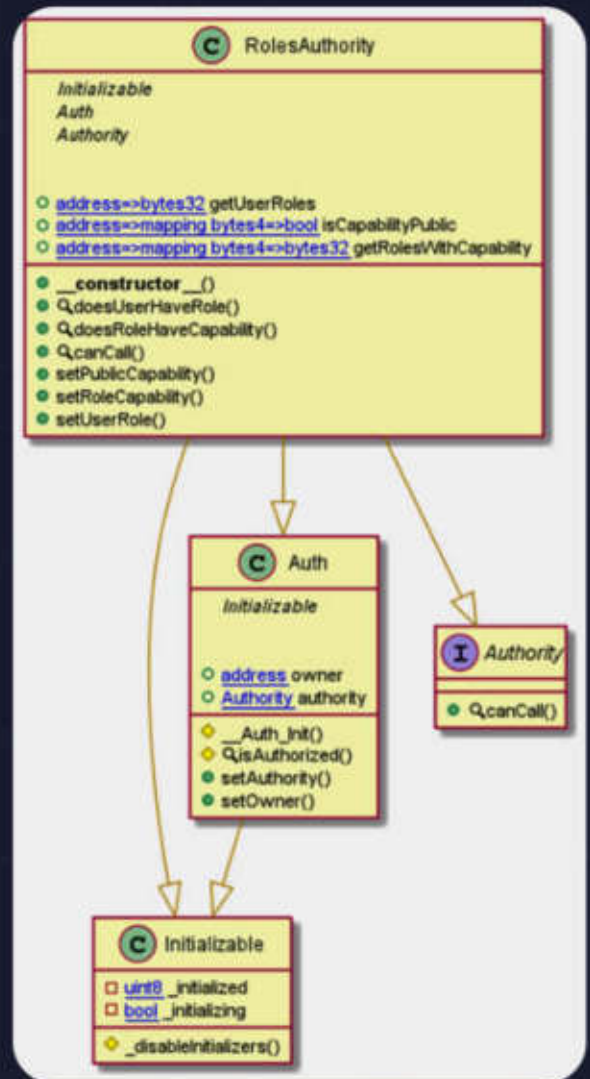




### Owned Diagram



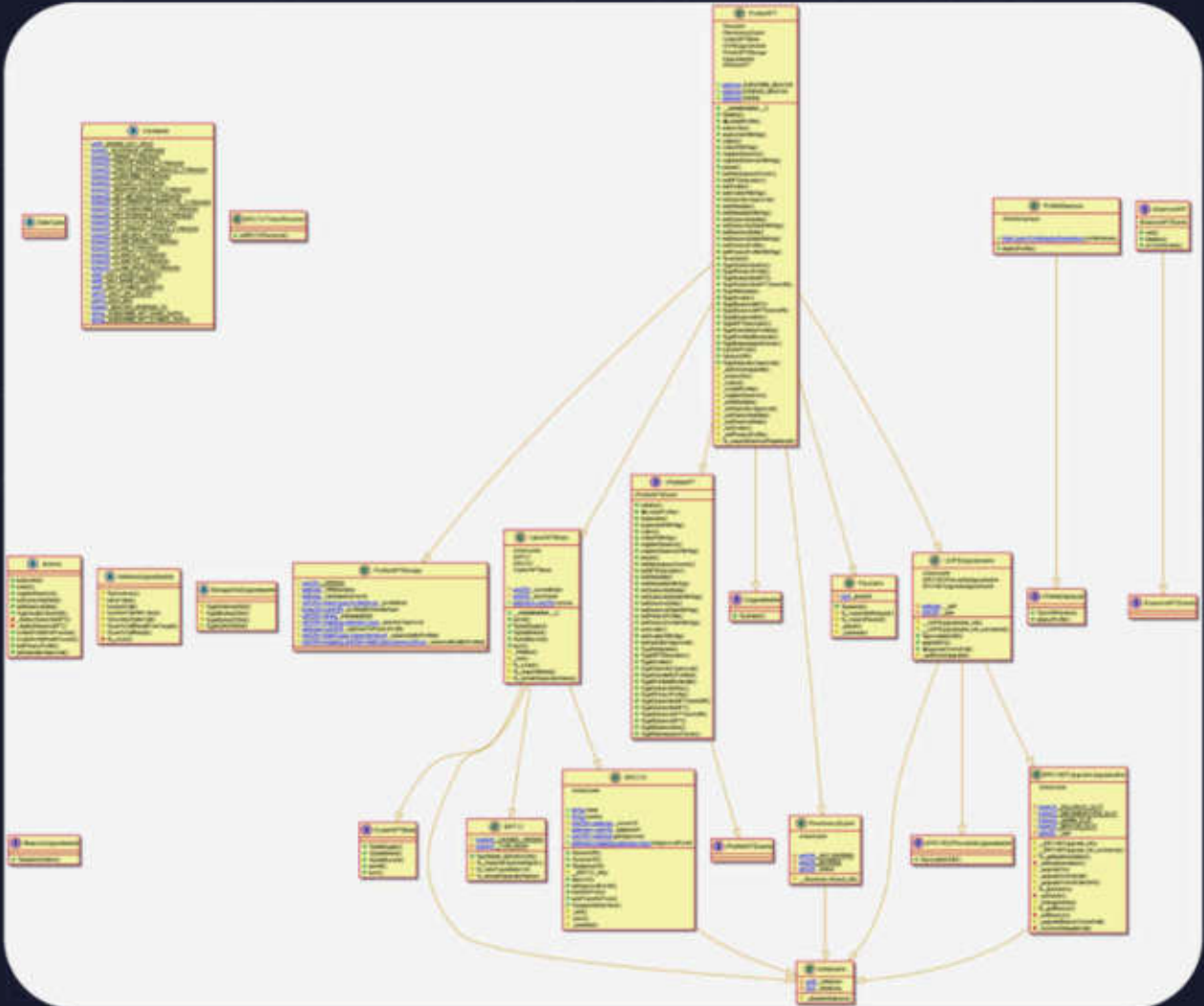
### RolesAuthority Diagram







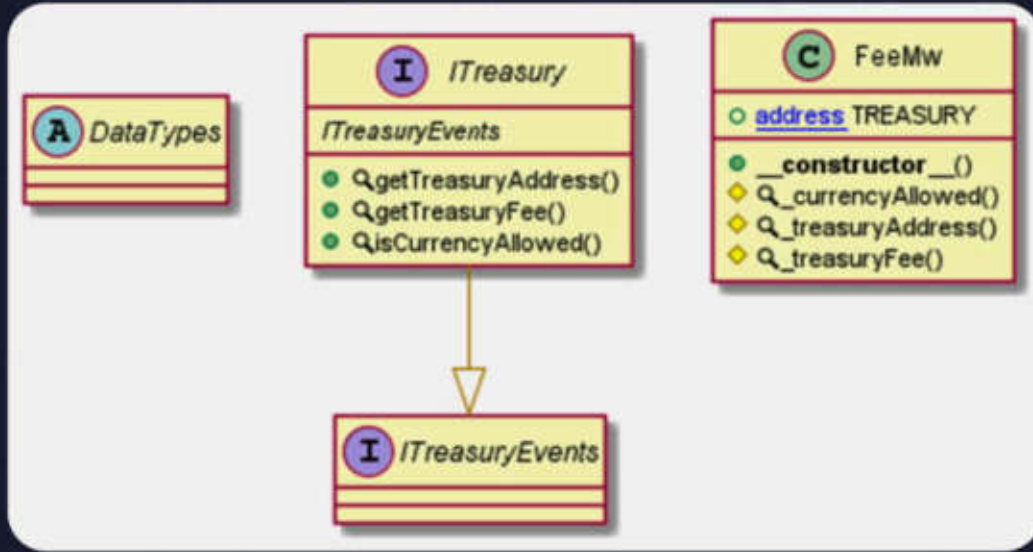
## ProfileDeployer Diagram



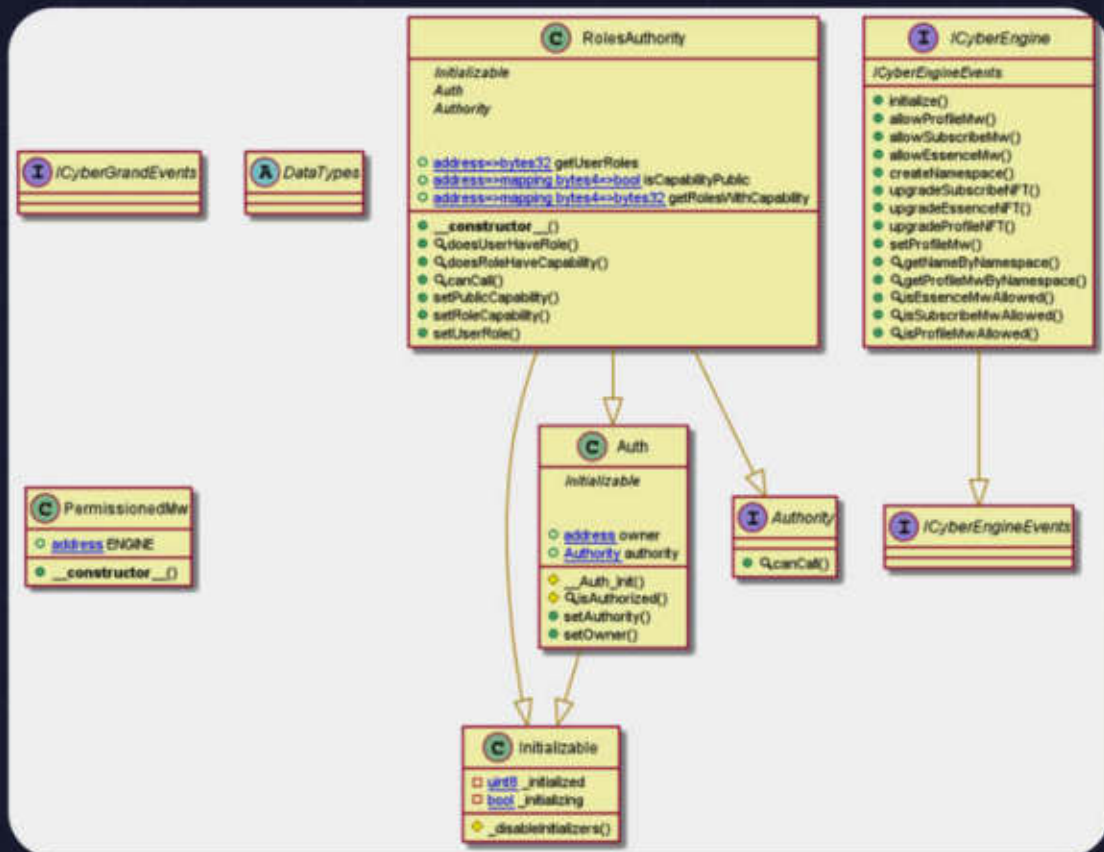




### FeeMw Diagram

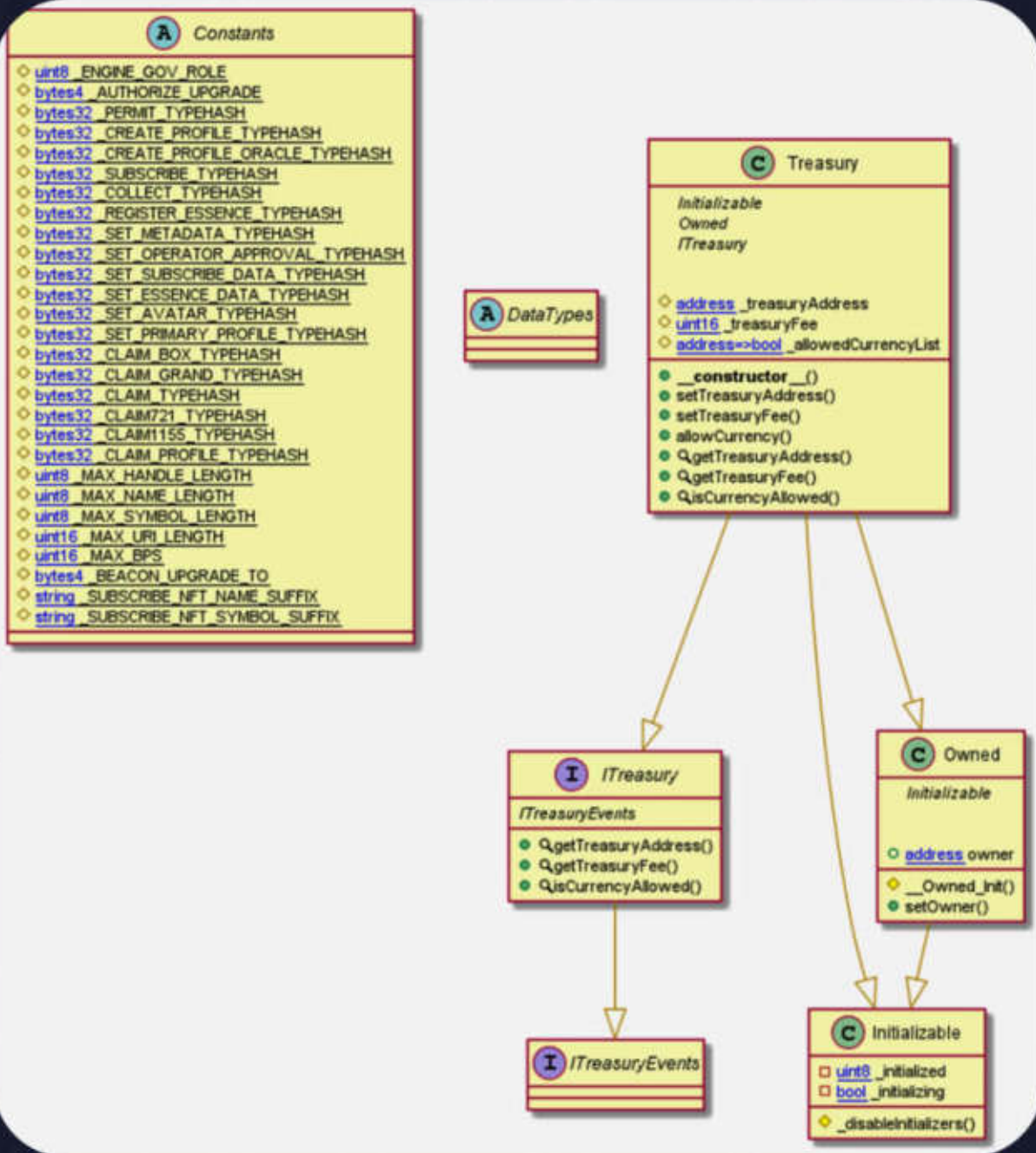


### PermissionedMw Diagram





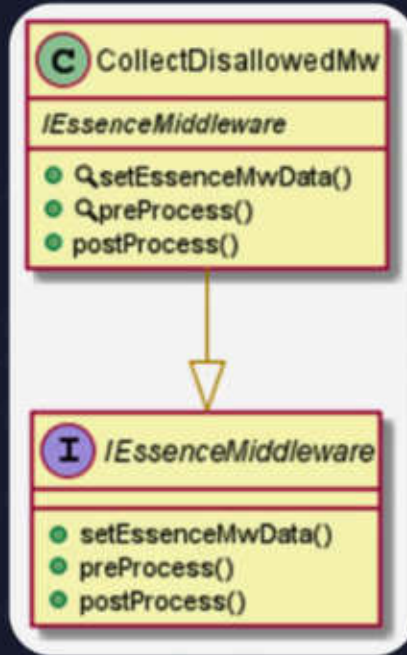
### Treasury Diagram



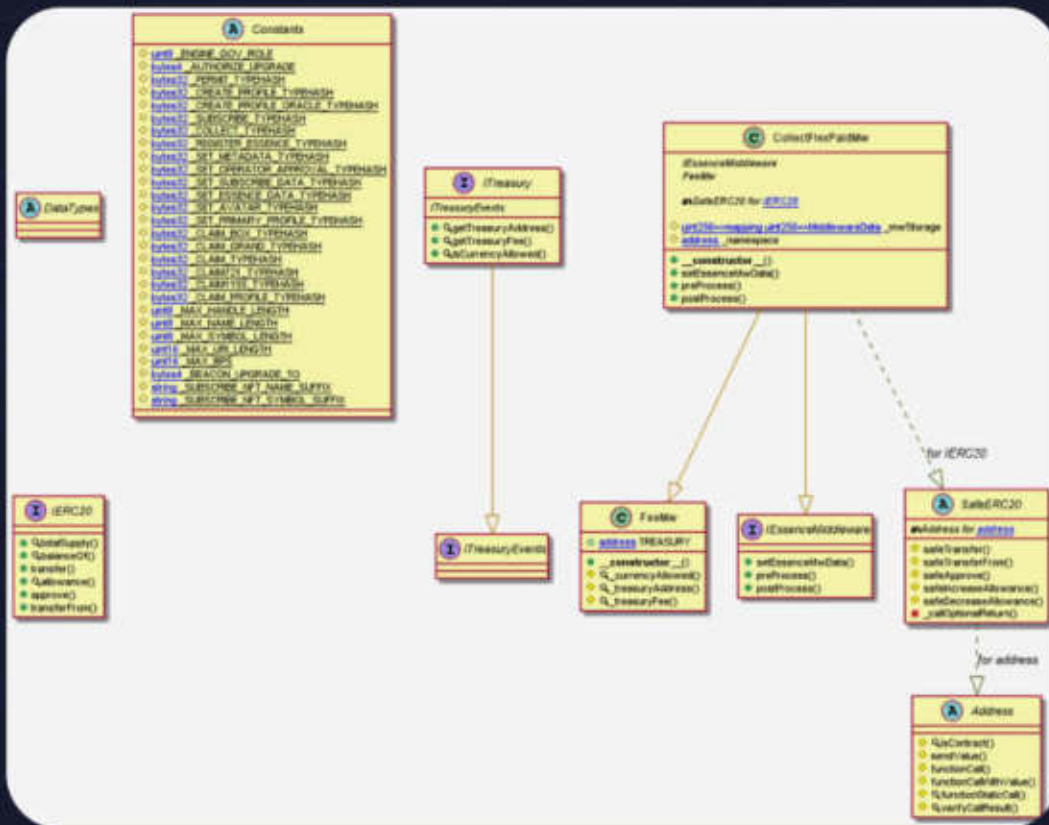




### CollectDisallowedMw Diagram

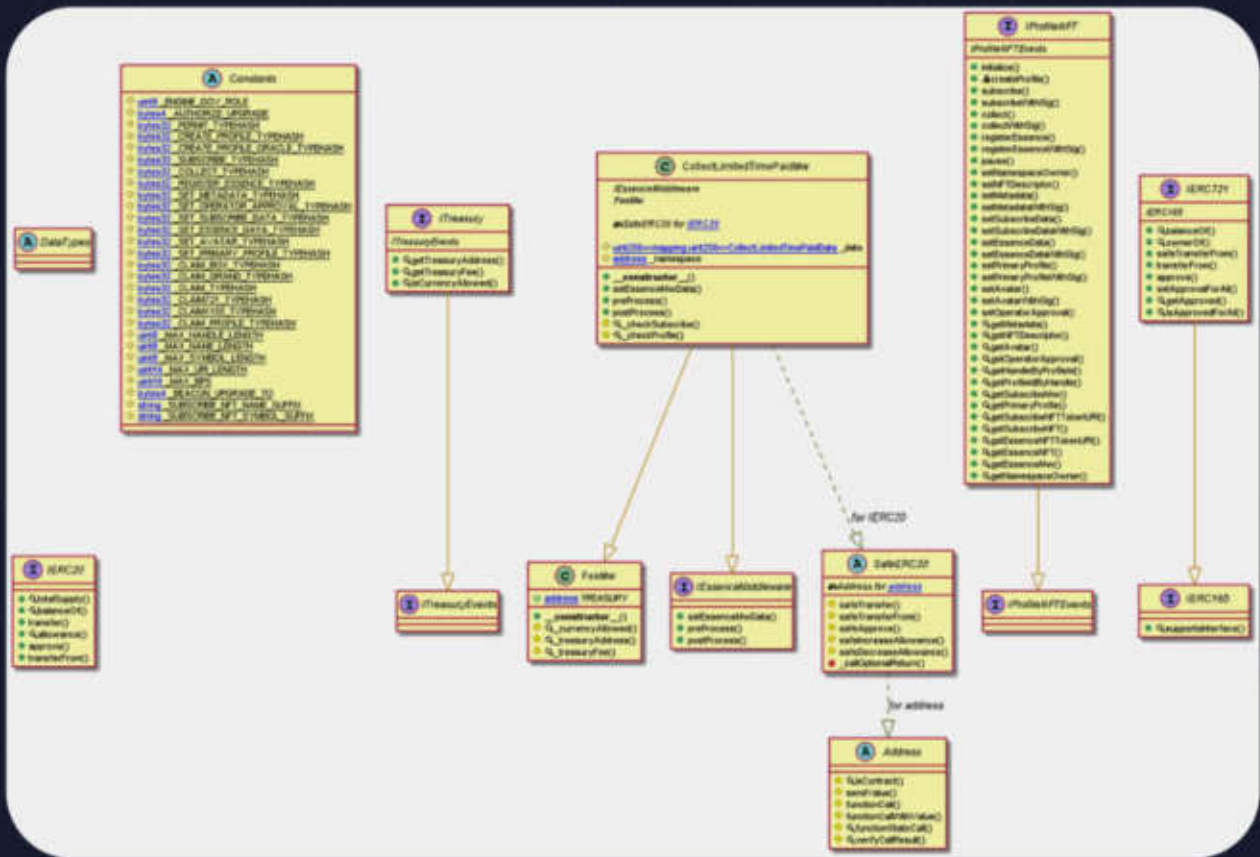


### CollectDisallowedMw Diagram

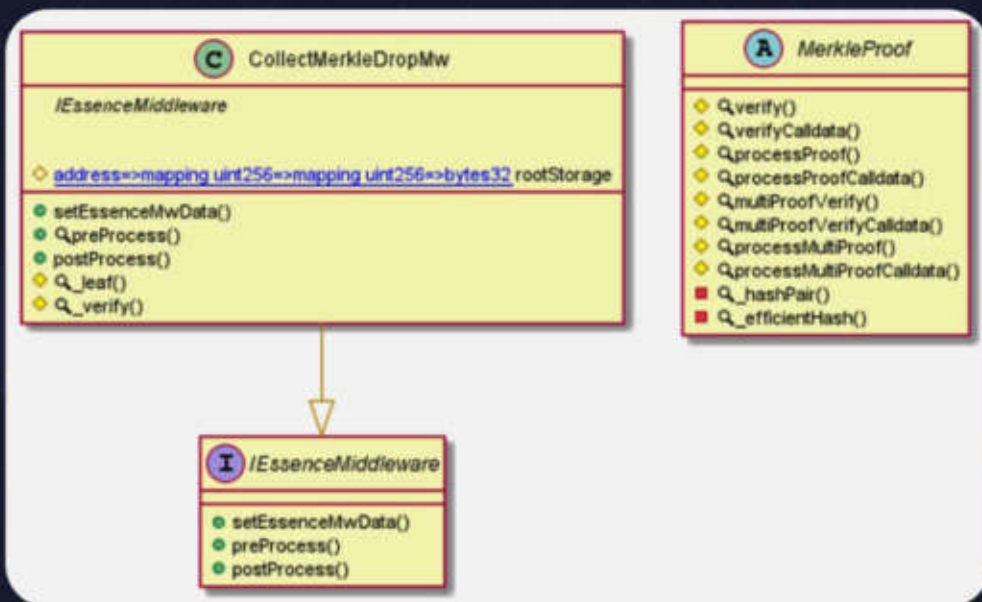




### CollectLimitedTimePaidMw Diagram

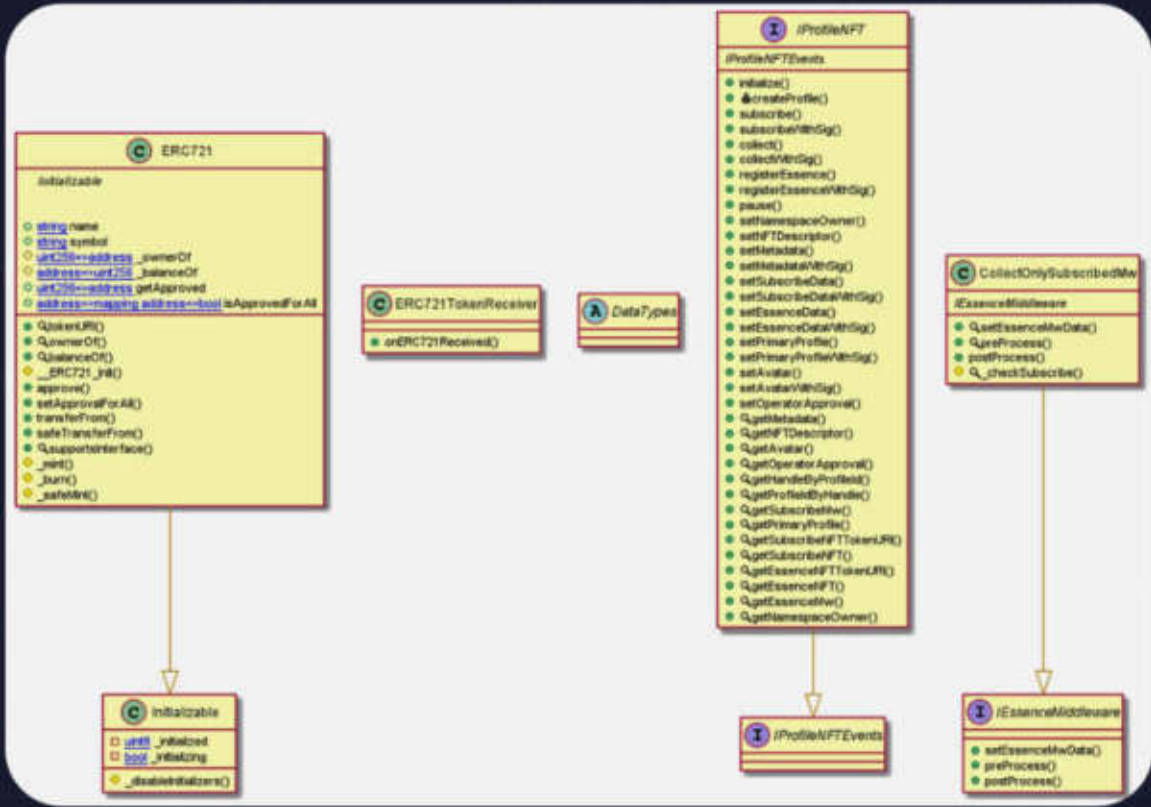


### CollectMerkleDropMw Diagram

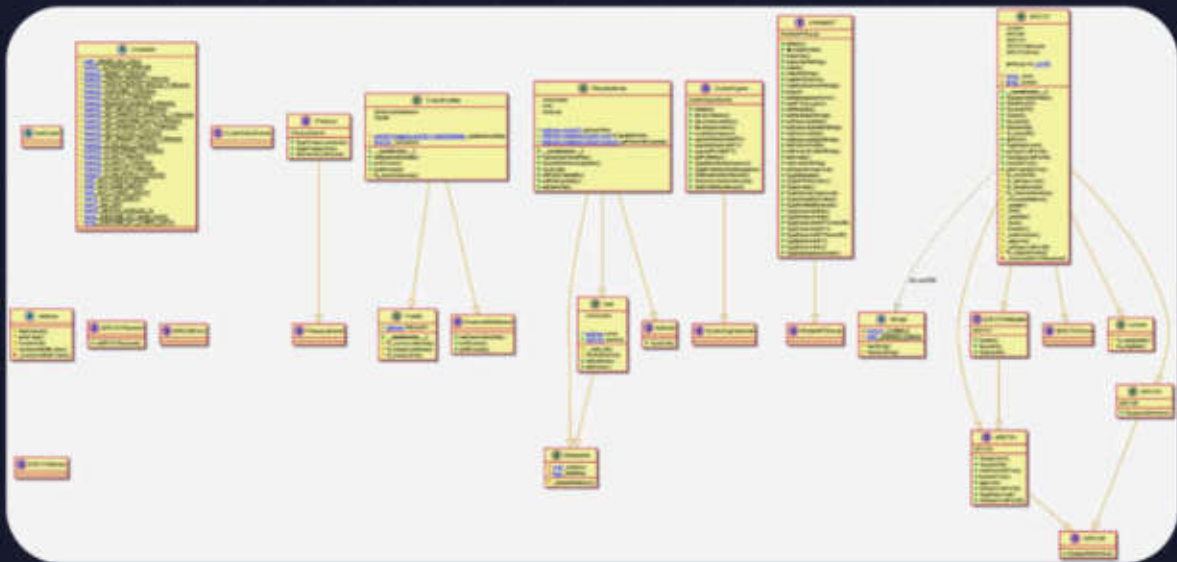




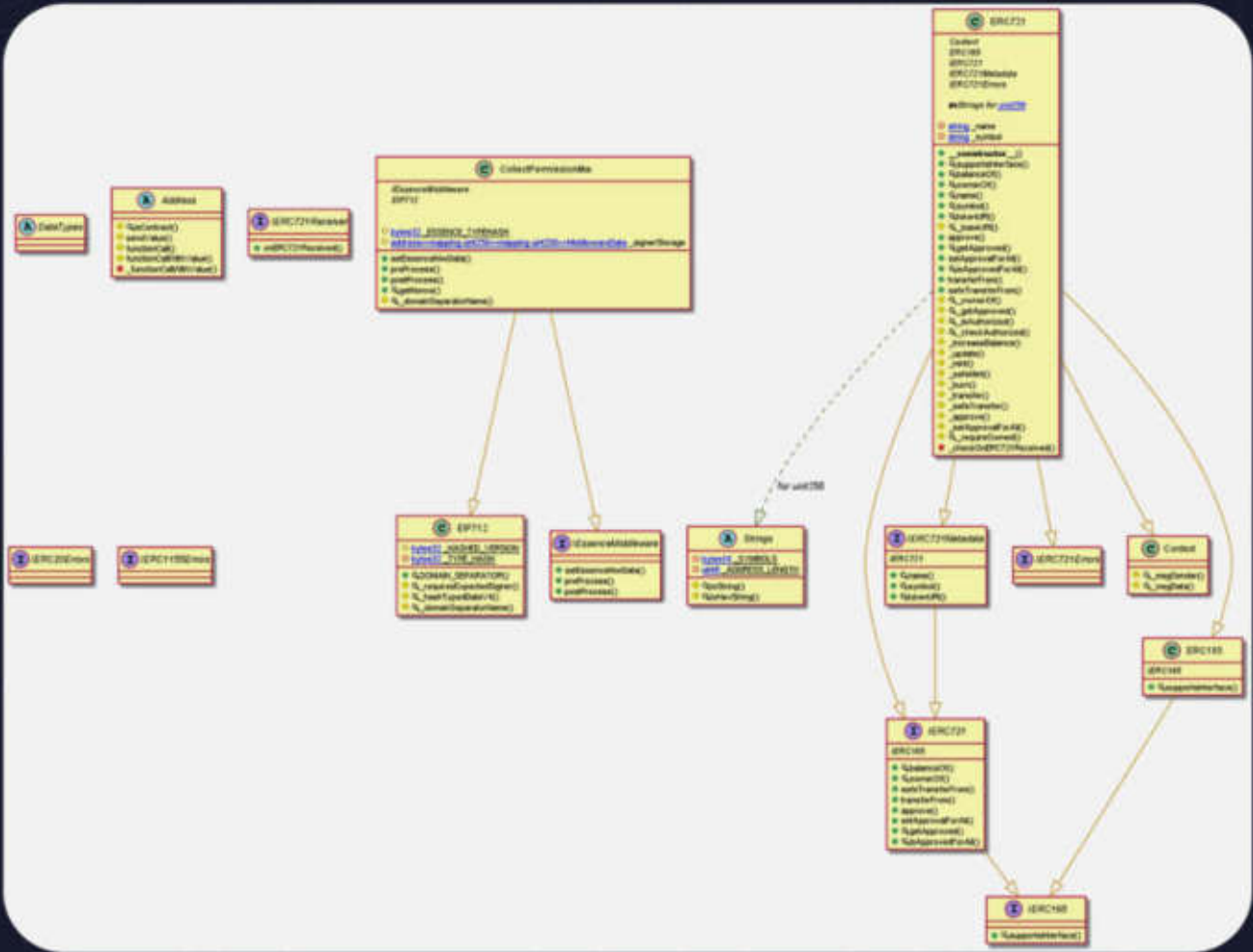
### CollectOnlySubscribedMw Diagram



### CollectPaidMw Diagram



### CollectPermissionMw Diagram



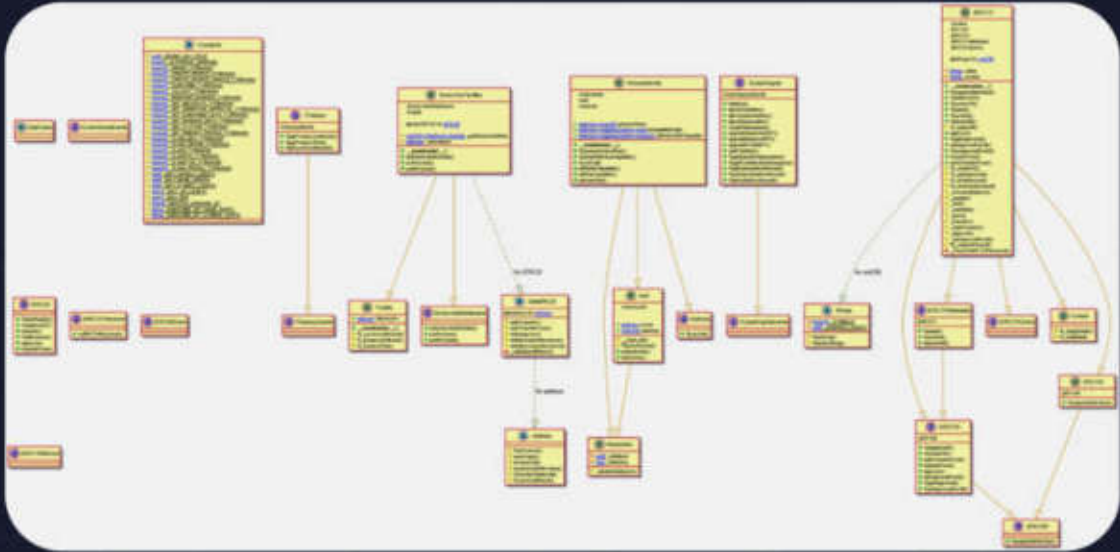




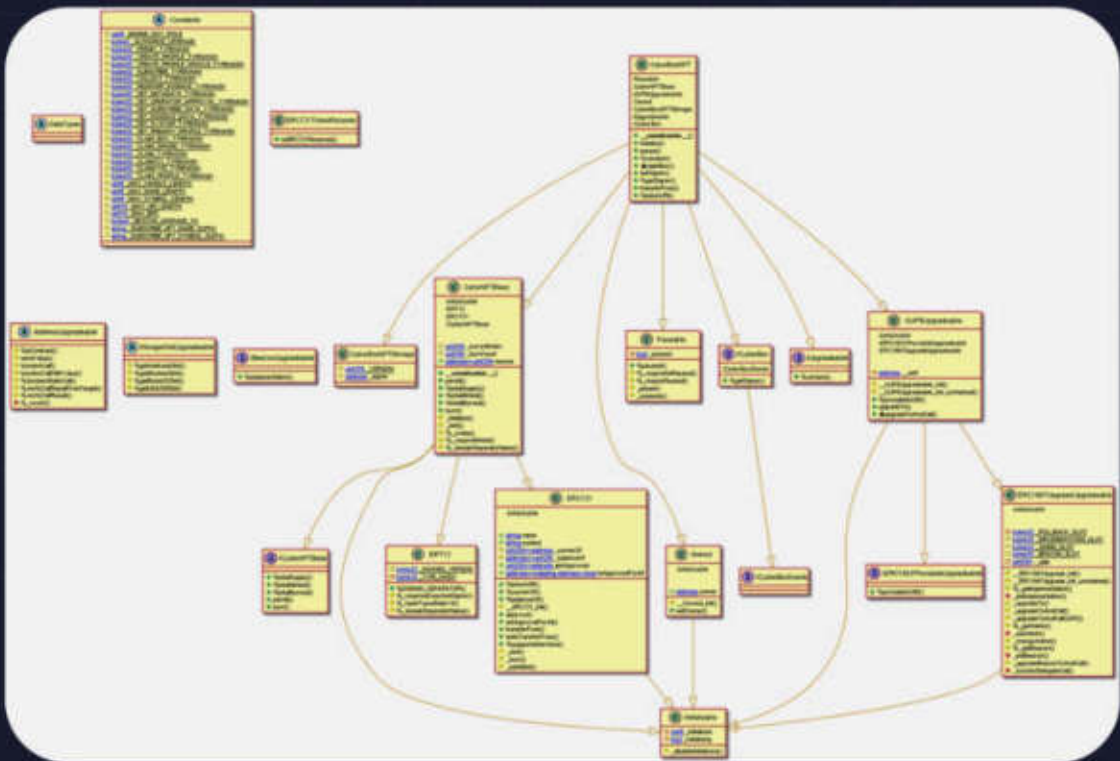




### SubscribePaidMw Diagram



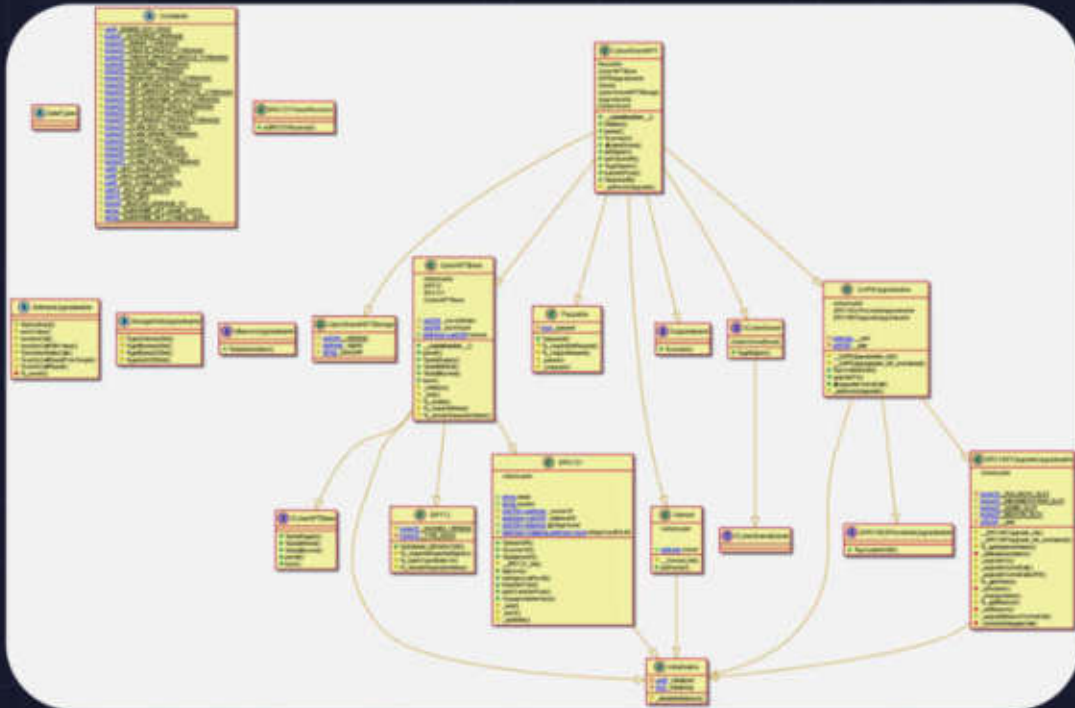
### CyberBoxNFT Diagram



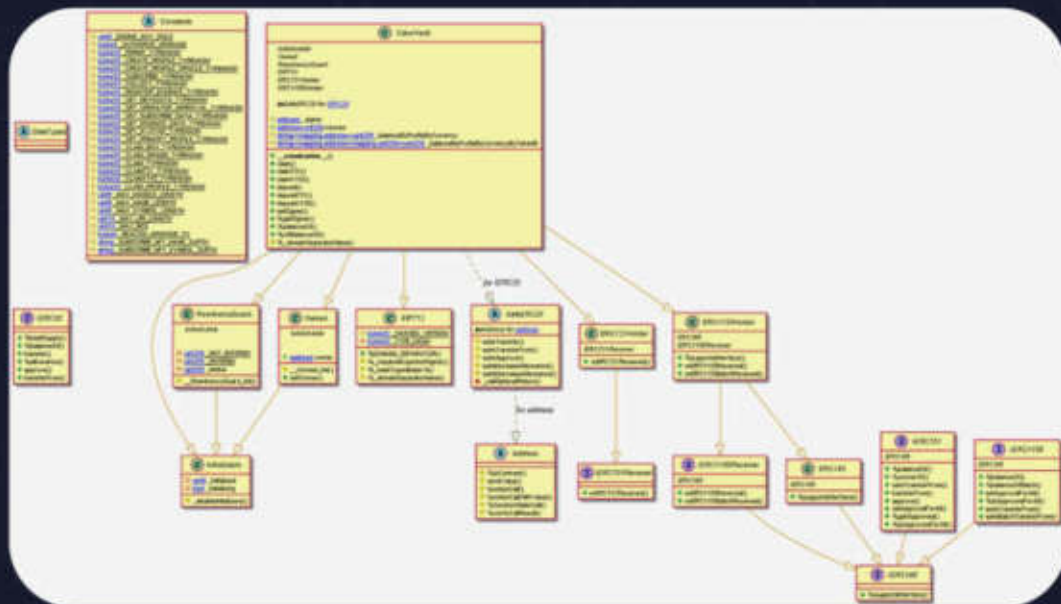




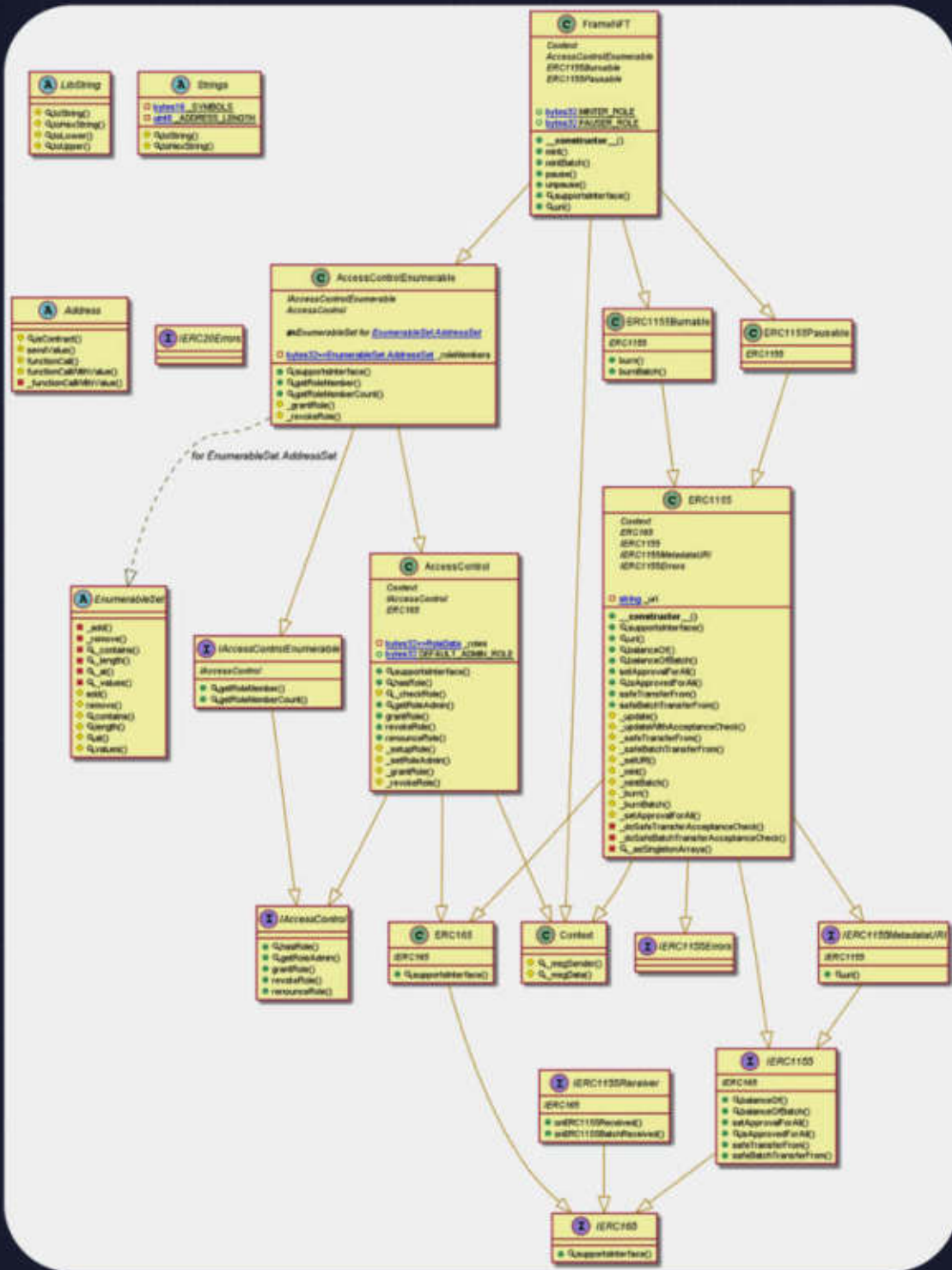
### CyberGrandNFT Diagram



### CyberVault Diagram



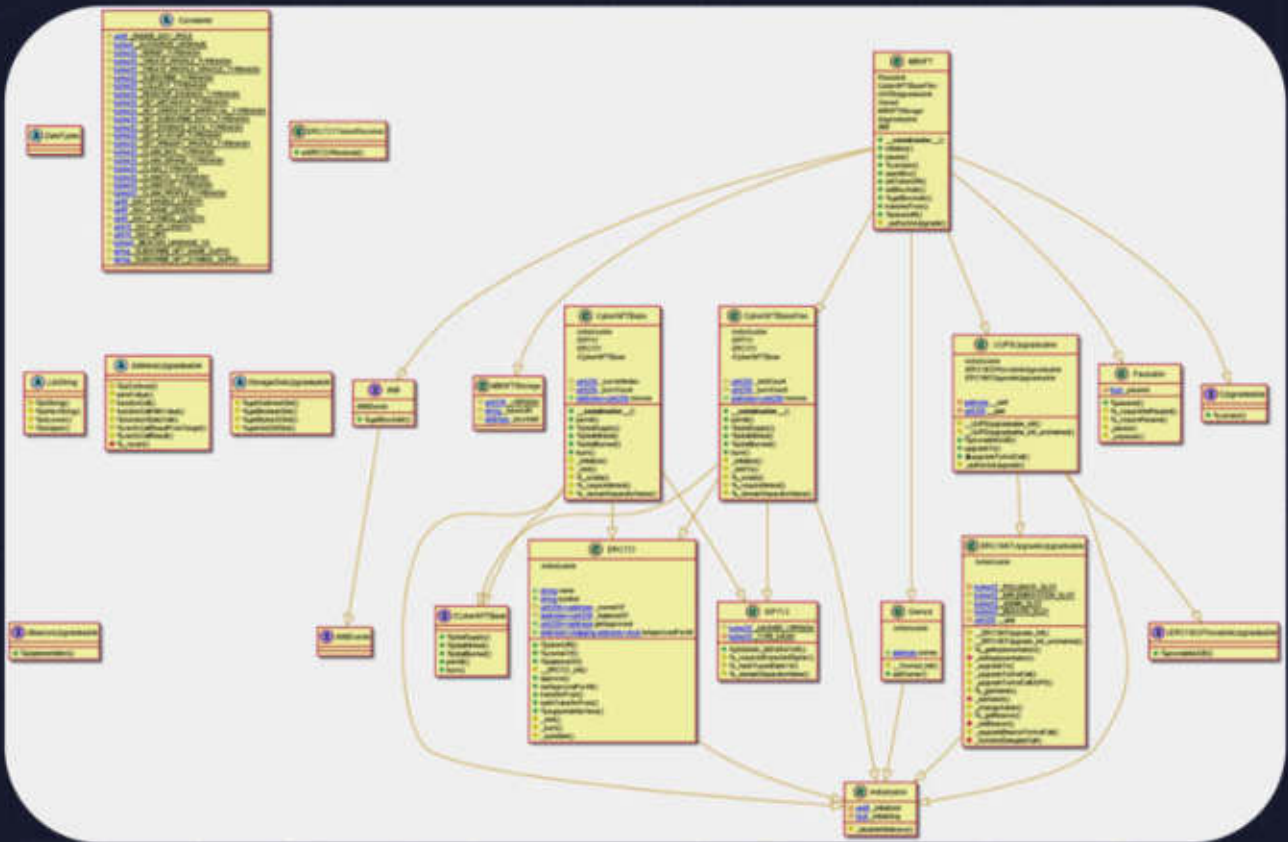
### FrameNFT Diagram







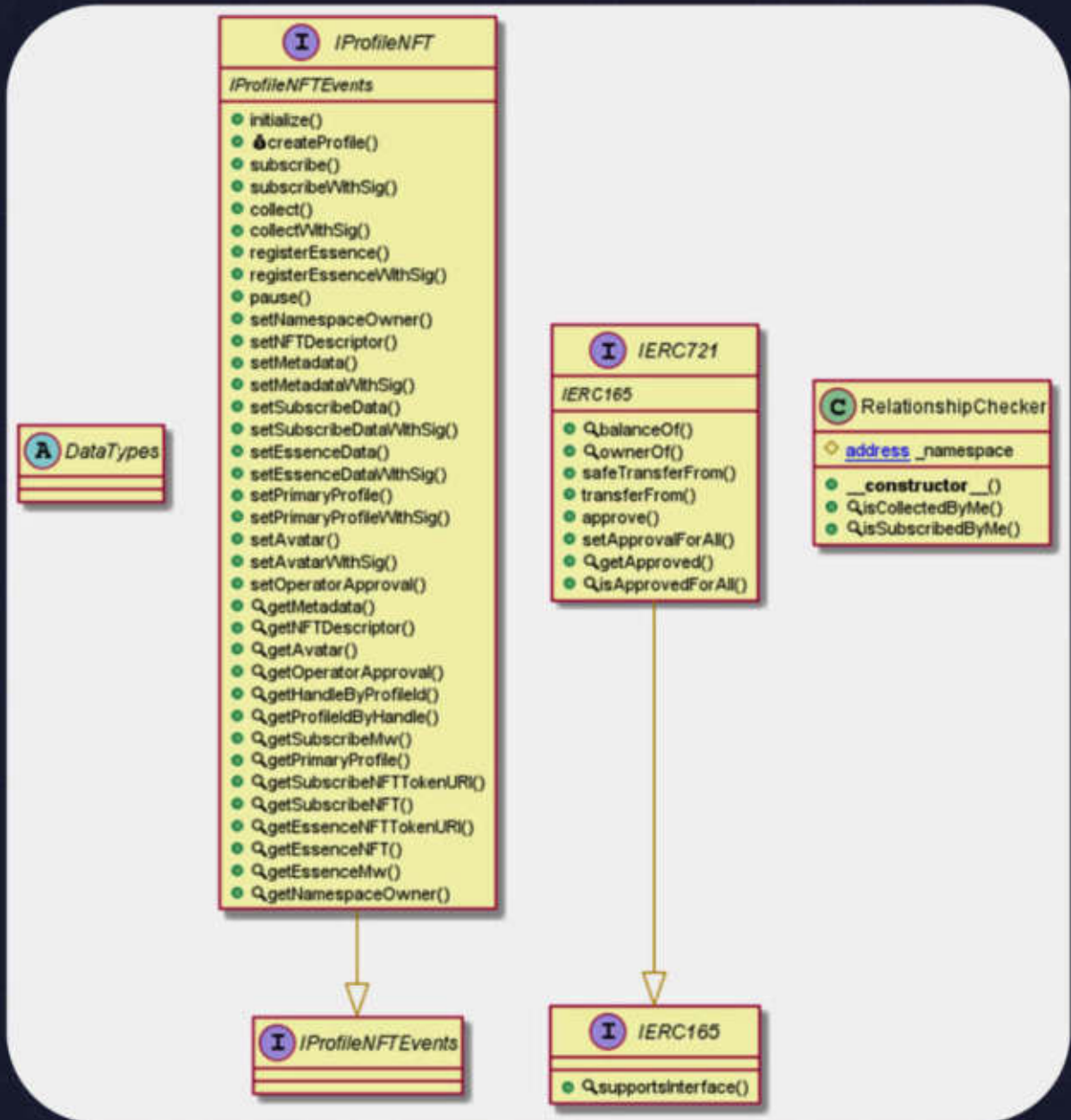
## MBNFT Diagram





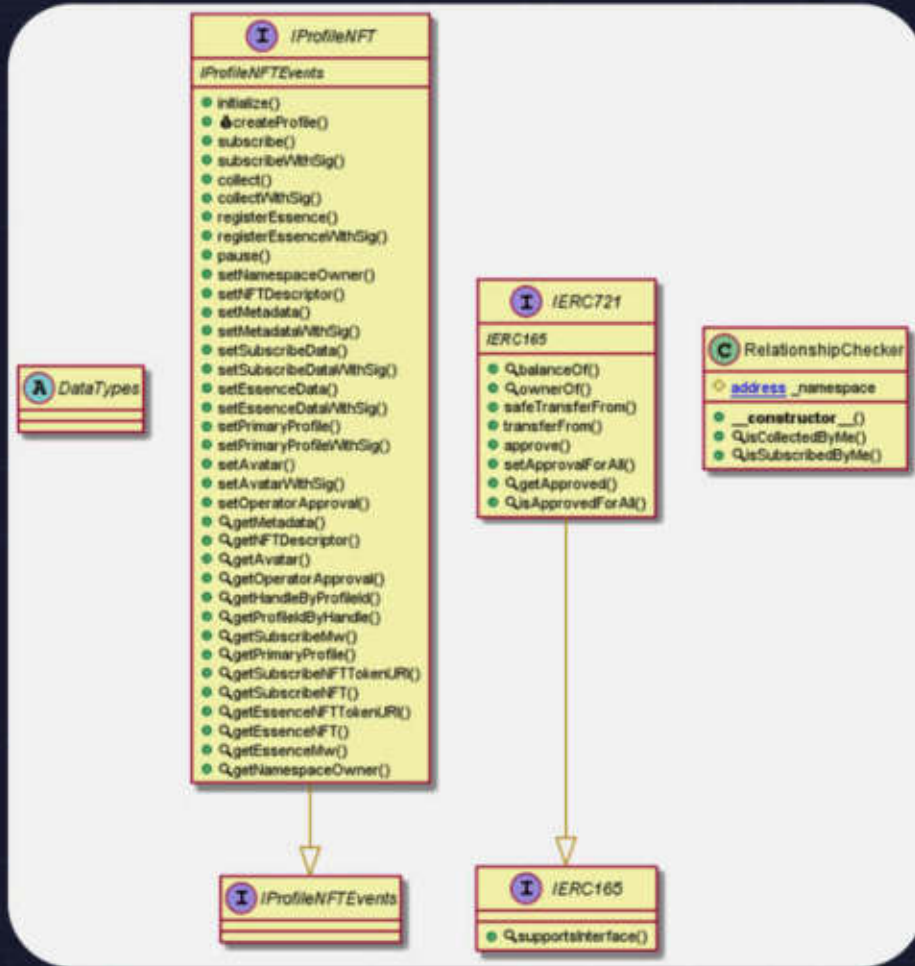


### RelationshipChecker Diagram

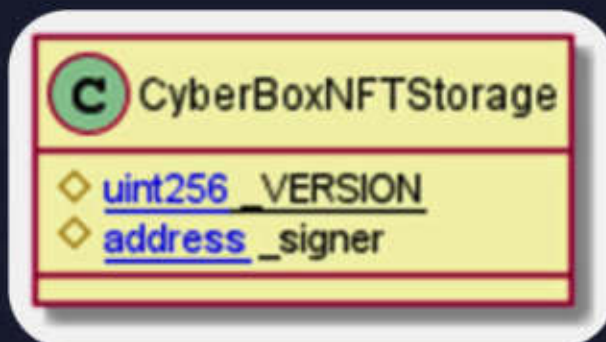




### RelationshipChecker Diagram



### CyberBoxNFTStorage Diagram





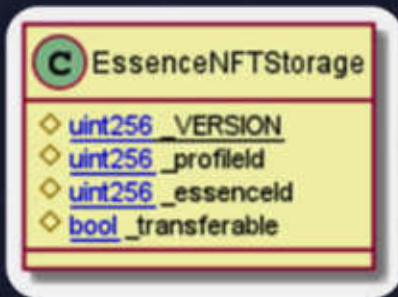
### CyberEngineStorage Diagram



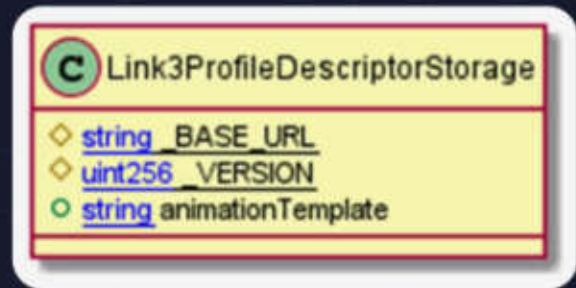
### CyberGrandNFTStorage Diagram



### EssenceNFTStorage Diagram



### Link3ProfileDescriptor Storage Diagram



### MBNFTStorage Diagram



### ProfileNFTStorage Diagram



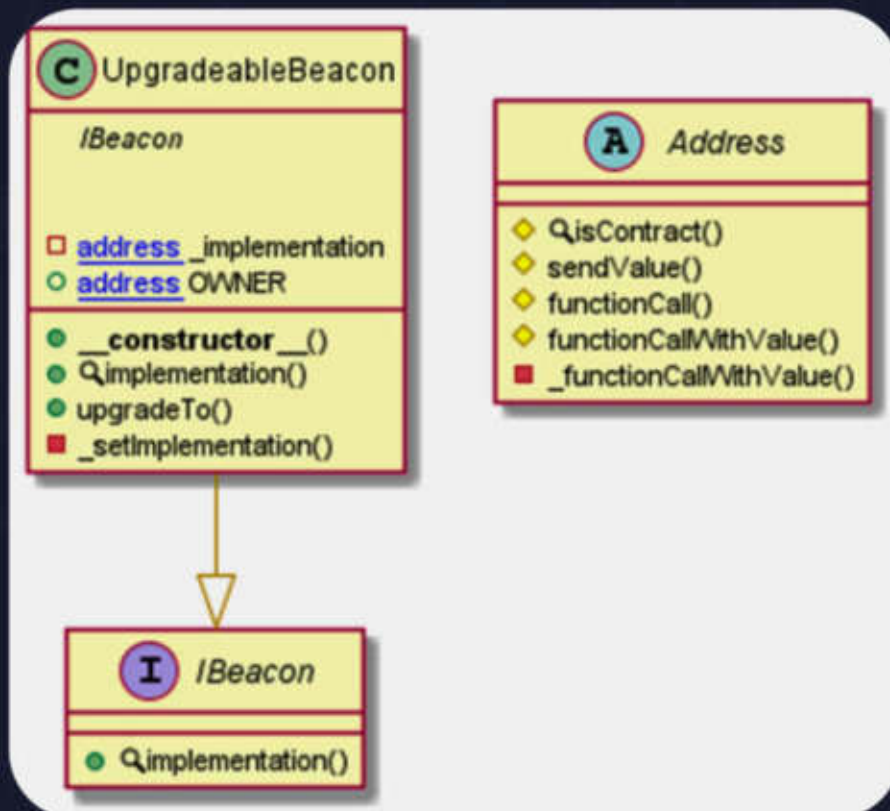




### SubscribeNFTStorage Diagram



### UpgradeableBeacon Diagram







# SECURITY ASSESSMENT REPORT

Slither is a Solidity static analysis framework that uses vulnerability detectors, displays contract details, and provides an API for writing custom analyses. It helps developers identify vulnerabilities, improve code comprehension, and prototype custom analyses quickly. The analysis includes a report with warnings and errors, allowing developers to quickly prototype and fix issues.

We did the analysis of the project together. Below are the results.

## Slither Log >> CyberNFTBaseFlex.sol

```
Reentrancy in CyberNFTBaseFlex._mintTo(address,uint256) (CyberNFTBaseFlex.sol#747-750):
  External calls:
  - super._safeMint(to,_id) (CyberNFTBaseFlex.sol#748)
    - require(bool,string)(ERC721TokenReceiver(to).onERC721Received(msg.sender,address(0),_id,_) == ERC721TokenReceiver.onERC721Received.selector,UNSAFE_RECIPIENT) (CyberNFTBaseFlex.sol#524-528)
  State variables written after the call(s):
  - ++ _mintCount (CyberNFTBaseFlex.sol#749)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-2

EIP712_requiresExpectedSigner(bytes32,address,uint8,bytes32,bytes32,uint256) (CyberNFTBaseFlex.sol#599-616) uses timestamp for comparisons
  Dangerous comparisons:
  - require(bool,string)(deadline >= block.timestamp,DEADLINE_EXCEEDED) (CyberNFTBaseFlex.sol#607)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

CyberNFTBaseFlex._exists(uint256) (CyberNFTBaseFlex.sol#752-754) is never used and should be removed
CyberNFTBaseFlex._initialize(string,string) (CyberNFTBaseFlex.sol#740-745) is never used and should be removed
CyberNFTBaseFlex._mintTo(address,uint256) (CyberNFTBaseFlex.sol#747-750) is never used and should be removed
CyberNFTBaseFlex._requireMinted(uint256) (CyberNFTBaseFlex.sol#756-758) is never used and should be removed
ERC721._ERC721Init(string,string) (CyberNFTBaseFlex.sol#381-387) is never used and should be removed
ERC721._mint(address,uint256) (CyberNFTBaseFlex.sol#484-497) is never used and should be removed
ERC721._safeMint(address,uint256) (CyberNFTBaseFlex.sol#520-529) is never used and should be removed
ERC721._safeMint(address,uint256,bytes) (CyberNFTBaseFlex.sol#531-544) is never used and should be removed
Initializable.disableInitializers() (CyberNFTBaseFlex.sol#317-323) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version0.8.14 (CyberNFTBaseFlex.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Function ERC721._ERC721Init(string,string) (CyberNFTBaseFlex.sol#381-387) is not in mixedCase
Parameter ERC721._ERC721Init(string,string).name (CyberNFTBaseFlex.sol#381) is not in mixedCase
Parameter ERC721._ERC721Init(string,string).symbol (CyberNFTBaseFlex.sol#381) is not in mixedCase
Variable ERC721._ownerOf (CyberNFTBaseFlex.sol#355) is not in mixedCase
Variable ERC721._balanceOf (CyberNFTBaseFlex.sol#357) is not in mixedCase
Function EIP712.DOMAIN_SEPARATOR() (CyberNFTBaseFlex.sol#582-593) is not in mixedCase
Variable CyberNFTBaseFlex._mintCount (CyberNFTBaseFlex.sol#656) is not in mixedCase
Variable CyberNFTBaseFlex._burnCount (CyberNFTBaseFlex.sol#657) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

CyberNFTBaseFlex (CyberNFTBaseFlex.sol#652-789) does not implement functions:
- ERC721.tokenURI(uint256) (CyberNFTBaseFlex.sol#349)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unimplemented-functions
CyberNFTBaseFlex.sol analyzed (8 contracts with 84 detectors), 22 result(s) found
```



## Slither Log >> EIP712.sol

```
EIP712._requiresExpectedSigner(bytes32,address,uint8,bytes32,bytes32,uint256) (EIP712.sol#178-195) uses timestamp for comparison
- Dangerous comparisons:
  - require(bool,string)(deadline >= block.timestamp,DEADLINE_EXCEEDED) (EIP712.sol#186)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

EIP712._hashTypedDataV4(bytes32) (EIP712.sol#212-222) is never used and should be removed
EIP712._requiresExpectedSigner(bytes32,address,DataTypes.EIP712Signature) (EIP712.sol#197-210) is never used and should be removed
EIP712._requiresExpectedSigner(bytes32,address,uint8,bytes32,bytes32,uint256) (EIP712.sol#178-195) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version0.8.14 (EIP712.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Function EIP712.DOMAIN_SEPARATOR() (EIP712.sol#161-172) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

EIP712 (EIP712.sol#141-229) does not implement functions:
- EIP712.domainSeparatorName() (EIP712.sol#224-228)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unimplemented-functions
EIP712.sol analyzed (2 contracts with 84 detectors), 8 result(s) found
```

## Slither Log >> CyberNFTBase.sol

```
EIP712._requiresExpectedSigner(bytes32,address,uint8,bytes32,bytes32,uint256) (CyberNFTBase.sol#349-366) uses timestamp for comparisons
- Dangerous comparisons:
  - require(bool,string)(deadline >= block.timestamp,DEADLINE_EXCEEDED) (CyberNFTBase.sol#357)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

CyberNFTBase.exists(uint256) (CyberNFTBase.sol#742-744) is never used and should be removed
CyberNFTBase.initialize(string,string) (CyberNFTBase.sol#730-735) is never used and should be removed
CyberNFTBase.mint(address) (CyberNFTBase.sol#737-740) is never used and should be removed
CyberNFTBase.requireMinted(uint256) (CyberNFTBase.sol#746-748) is never used and should be removed
ERC721._ERC721Init(string,string) (CyberNFTBase.sol#457-463) is never used and should be removed
ERC721.mint(address,uint256) (CyberNFTBase.sol#500-573) is never used and should be removed
ERC721.safeMint(address,uint256) (CyberNFTBase.sol#506-585) is never used and should be removed
ERC721.safeMint(address,uint256,bytes) (CyberNFTBase.sol#607-620) is never used and should be removed
Initializable.disableInitializers() (CyberNFTBase.sol#302-308) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version0.8.14 (CyberNFTBase.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Function EIP712.DOMAIN_SEPARATOR() (CyberNFTBase.sol#332-343) is not in mixedCase
Function ERC721._ERC721Init(string,string) (CyberNFTBase.sol#457-463) is not in mixedCase
Parameter ERC721._ERC721Init(string,string).name (CyberNFTBase.sol#457) is not in mixedCase
Parameter ERC721._ERC721Init(string,string).symbol (CyberNFTBase.sol#457) is not in mixedCase
Variable ERC721.ownerOf (CyberNFTBase.sol#431) is not in mixedCase
Variable ERC721.balanceOf (CyberNFTBase.sol#433) is not in mixedCase
Variable CyberNFTBase.currentIndex (CyberNFTBase.sol#646) is not in mixedCase
Variable CyberNFTBase.burnCount (CyberNFTBase.sol#647) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

CyberNFTBase (CyberNFTBase.sol#642-759) does not implement functions:
- ERC721.tokenURI(uint256) (CyberNFTBase.sol#425)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unimplemented-functions
CyberNFTBase.sol analyzed (8 contracts with 84 detectors), 21 result(s) found
```



## Slither Log >> CyberEngine.sol

```
ProfileNFT.initialize(address,string,string).name (CyberEngine.sol#2560) shadows:
- ERC721.name (CyberEngine.sol#615) (state variable)
ProfileNFT.initialize(address,string,string).symbol (CyberEngine.sol#2570) shadows:
- ERC721.symbol (CyberEngine.sol#617) (state variable)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

Auth.setOwner(address).newOwner (CyberEngine.sol#3526) lacks a zero-check on:
- owner = newOwner (CyberEngine.sol#3527)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

Variable 'ERC1967UpgradeUpgradeable._upgradeToAndCallUUPS(address,bytes,bool).slot (CyberEngine.sol#2374)' in ERC1967UpgradeUpgradeable._upgradeToAndCallUUPS(address,bytes,bool) (CyberEngine.sol#2366-2381) potentially used before declaration: require(bool,string)(slot == IMPLEMENTATION_SLOT,ERC1967Upgrade.unsupported proxiableUUID) (CyberEngine.sol#2375)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#pre-declaration-usage-of-local-variables

Reentrancy in Actions.collect(DataTypes.CollectData,mapping(uint256 => mapping(uint256 => DataTypes.EssenceStruct))) (CyberEngine.sol#1035-1081):
  External calls:
  - tokenId = IEssenceNFT(essenceNFT).mint(data.collector) (CyberEngine.sol#1071)
  Event emitted after the call(s):
  - collectEssence(data.collector,data.profileId,data.essenceId,tokenId,data.preData,data.postData) (CyberEngine.sol#1073-1080)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-3

EIP712._requiresExpectedSigner(bytes32,address,uint8,bytes32,bytes32,uint256) (CyberEngine.sol#543-560) uses timestamp for comparisons
  Dangerous comparisons:
  - require(bool,string)(deadline == block.timestamp,DEADLINE_EXCEEDED) (CyberEngine.sol#551)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Function Auth.__Auth_Init(address,Authority) (CyberEngine.sol#3494-3500) is not in mixedCase
Parameter Auth.__Auth_Init(address,Authority)._owner (CyberEngine.sol#3494) is not in mixedCase
Parameter Auth.__Auth_Init(address,Authority).authority (CyberEngine.sol#3494) is not in mixedCase
Parameter CyberEngine.initialize(address,RolesAuthority)._owner (CyberEngine.sol#4100) is not in mixedCase
Parameter CyberEngine.initialize(address,RolesAuthority)._rolesAuthority (CyberEngine.sol#4100) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

Variable UpgradeableBeacon._implementation (CyberEngine.sol#97) is too similar to UpgradeableBeacon.constructor(address,address)._implementation_ (CyberEngine.sol#109)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#variable-names-too-similar

CyberEngineStorage.VERSION_STRING (CyberEngine.sol#288) is never used in CyberEngine (CyberEngine.sol#4116-4407)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-state-variable
CyberEngine.sol analyzed (42 contracts with 84 detectors), 134 result(s) found

EssenceNFT.initialize(uint256,uint256,string,string,bool).name (EssenceNFT.sol#1096) shadows:
- ERC721.name (EssenceNFT.sol#443) (state variable)
EssenceNFT.initialize(uint256,uint256,string,string,bool).symbol (EssenceNFT.sol#1097) shadows:
- ERC721.symbol (EssenceNFT.sol#445) (state variable)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

EIP712._requiresExpectedSigner(bytes32,address,uint8,bytes32,bytes32,uint256) (EssenceNFT.sol#371-388) uses timestamp for comparisons
  Dangerous comparisons:
  - require(bool,string)(deadline == block.timestamp,DEADLINE_EXCEEDED) (EssenceNFT.sol#379)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

ERC721._safeMint(address,uint256,bytes) (EssenceNFT.sol#620-642) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version0.8.14 (EssenceNFT.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Variable EssenceNFTStorage._profileId (EssenceNFT.sol#12) is not in mixedCase
Variable EssenceNFTStorage._essenceId (EssenceNFT.sol#13) is not in mixedCase
Variable EssenceNFTStorage._transferable (EssenceNFT.sol#14) is not in mixedCase
Function EIP712.DOMAIN_SEPARATOR() (EssenceNFT.sol#354-365) is not in mixedCase
Function ERC721._ERC721_Init(string,string) (EssenceNFT.sol#479-485) is not in mixedCase
Parameter ERC721._ERC721_Init(string,string)._name (EssenceNFT.sol#479) is not in mixedCase
Parameter ERC721._ERC721_Init(string,string)._symbol (EssenceNFT.sol#479) is not in mixedCase
Variable ERC721._ownerOf (EssenceNFT.sol#453) is not in mixedCase
Variable ERC721._balanceOf (EssenceNFT.sol#455) is not in mixedCase
Variable CyberNFTBase._currentIndex (EssenceNFT.sol#668) is not in mixedCase
Variable CyberNFTBase._burnCount (EssenceNFT.sol#669) is not in mixedCase
Variable EssenceNFT.PROFILE (EssenceNFT.sol#1075) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
EssenceNFT.sol analyzed (15 contracts with 84 detectors), 18 result(s) found
```



## Slither Log >> ProfileNFT.sol

```
ProfileNFT.initialize(address,string,string).name (ProfileNFT.sol#2340) shadows:
- ERC721.name (ProfileNFT.sol#455) (state variable)
ProfileNFT.initialize(address,string,string).symbol (ProfileNFT.sol#2341) shadows:
- ERC721.symbol (ProfileNFT.sol#457) (state variable)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

Variable ERC1967UpgradeUpgradeable._upgradeToAndCall[UUPS](address,bytes,bool).slot (ProfileNFT.sol#2145) in ERC1967UpgradeUpgradeable._upgradeToAndCall[UUPS](address,bytes,bool) (ProfileNFT.sol#2137-2152) potentially used before declaration: require(bool,string)(slot == IMPLEMENTATION_SLOT,ERC1967Upgrade: unsupported proxiableUUID) (ProfileNFT.sol#2146)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#pre-declaration-usage-of-local-variables

EIP712._requiresExpectedSigner(bytes32,address,uintR,bytes32,bytes32,uint256) (ProfileNFT.sol#383-400) uses timestamp for comparisons
Dangerous comparisons:
- require(bool,string)(deadline >= block.timestamp,DEADLINE_EXCEEDED) (ProfileNFT.sol#391)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

AddressUpgradeable._revert(bytes,string) (ProfileNFT.sol#1914-1923) uses assembly
- INLINE ASM (ProfileNFT.sol#1916-1919)
StorageSlotUpgradeable.getAddressSlot(bytes32) (ProfileNFT.sol#1943-1947) uses assembly
- INLINE ASM (ProfileNFT.sol#1944-1946)
StorageSlotUpgradeable.getBooleanSlot(bytes32) (ProfileNFT.sol#1949-1953) uses assembly
- INLINE ASM (ProfileNFT.sol#1950-1952)
StorageSlotUpgradeable.getBytes32Slot(bytes32) (ProfileNFT.sol#1955-1959) uses assembly
- INLINE ASM (ProfileNFT.sol#1956-1958)
StorageSlotUpgradeable.getUint256Slot(bytes32) (ProfileNFT.sol#1961-1965) uses assembly
- INLINE ASM (ProfileNFT.sol#1962-1964)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Pragma version0.8.14 (ProfileNFT.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Low level call in AddressUpgradeable.sendValue(address,uint256) (ProfileNFT.sol#1835-1840):
- (success) = recipient.call{value: amount}() (ProfileNFT.sol#1838)
Low level call in AddressUpgradeable.functionCallWithValue(address,bytes,uint256,string) (ProfileNFT.sol#1862-1871):
- (success,returndata) = target.call{value: value}(data) (ProfileNFT.sol#1869)
Low level call in AddressUpgradeable.functionStaticCall(address,bytes,string) (ProfileNFT.sol#1877-1884):
- (success,returndata) = target.staticcall(data) (ProfileNFT.sol#1882)
Low level call in ERC1967UpgradeUpgradeable._functionDelegateCall(address,bytes) (ProfileNFT.sol#2201-2206):
- (success,returndata) = target.delegatecall(data) (ProfileNFT.sol#2204)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Variable ProfileNFTStorage._nftDescriptor (ProfileNFT.sol#148) is not in mixedCase
Variable ProfileNFTStorage._namespaceOwner (ProfileNFT.sol#149) is not in mixedCase
Variable ProfileNFTStorage._profileById (ProfileNFT.sol#150) is not in mixedCase
Variable ProfileNFTStorage._profileIdByHandleHash (ProfileNFT.sol#151) is not in mixedCase
Variable ProfileNFTStorage._metadataById (ProfileNFT.sol#152) is not in mixedCase
Variable ProfileNFTStorage._operatorApproval (ProfileNFT.sol#153) is not in mixedCase
Variable ProfileNFTStorage._addressToPrimaryProfile (ProfileNFT.sol#154) is not in mixedCase
Variable ProfileNFTStorage._subscribeByProfileId (ProfileNFT.sol#155-156) is not in mixedCase
Variable ProfileNFTStorage._essenceByIdByProfileId (ProfileNFT.sol#157-158) is not in mixedCase
Function EIP712.DOMAIN_SEPARATOR() (ProfileNFT.sol#366-377) is not in mixedCase
Function ERC721._ERC721Init(string,string) (ProfileNFT.sol#491-497) is not in mixedCase
Parameter ERC721._ERC721Init(string,string)._name (ProfileNFT.sol#491) is not in mixedCase
Parameter ERC721._ERC721Init(string,string)._symbol (ProfileNFT.sol#491) is not in mixedCase
Variable ERC721._ownerOf (ProfileNFT.sol#465) is not in mixedCase
Variable ERC721._balanceOf (ProfileNFT.sol#467) is not in mixedCase
Variable CyberNFTBase._currentIndex (ProfileNFT.sol#680) is not in mixedCase
Variable CyberNFTBase._burnCount (ProfileNFT.sol#681) is not in mixedCase
Parameter Actions.collect(DataTypes.CollectData,mapping(uint256 => mapping(uint256 => DataTypes.EssenceStruct)))._essenceByIdByProfileId (ProfileNFT.sol#877-878) is not in mixedCase
Parameter Actions.registerEssence(DataTypes.RegisterEssenceData,address,mapping(uint256 => DataTypes.ProfileStruct),mapping(uint256 => mapping(uint256 => DataTypes.EssenceStruct)))._profileById (ProfileNFT.sol#980) is not in mixedCase
Parameter Actions.setOperatorApproval(uint256,address,bool,mapping(uint256 => mapping(address => bool)))._operatorApproval (ProfileNFT.sol#1095) is not in mixedCase
Function ReentrancyGuard._ReentrancyGuard_init() (ProfileNFT.sol#1991-1993) is not in mixedCase
Function ERC1967UpgradeUpgradeable._ERC1967Upgrade_init() (ProfileNFT.sol#2101-2102) is not in mixedCase
Function ERC1967UpgradeUpgradeable._ERC1967Upgrade_init_unchained() (ProfileNFT.sol#2104-2105) is not in mixedCase
Variable ERC1967UpgradeUpgradeable._gap (ProfileNFT.sol#2208) is not in mixedCase
Function UUPSUpgradeable._UUPSUpgradeable_init() (ProfileNFT.sol#2211-2212) is not in mixedCase
Function UUPSUpgradeable._UUPSUpgradeable_init_unchained() (ProfileNFT.sol#2214-2215) is not in mixedCase
Variable UUPSUpgradeable._self (ProfileNFT.sol#2216) is not in mixedCase
Variable UUPSUpgradeable._gap (ProfileNFT.sol#2245) is not in mixedCase
Parameter ProfileNFT.initialize(address,string,string)._owner (ProfileNFT.sol#2339) is not in mixedCase
Variable ProfileNFT.SUBSCRIBE_BEACON (ProfileNFT.sol#2268) is not in mixedCase
Variable ProfileNFT.ESSENCE_BEACON (ProfileNFT.sol#2269) is not in mixedCase
Variable ProfileNFT.ENGINE (ProfileNFT.sol#2270) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
ProfileNFT.sol analyzed (25 contracts with 84 detectors); 85 result(s) found
```



## Slither Log >> SubscribeNFT.sol

```
SubscribeNFT.initialize(uint256,string,string).name (SubscribeNFT.sol#1502) shadows:
- ERC721.name (SubscribeNFT.sol#429) (state variable)
SubscribeNFT.initialize(uint256,string,string).symbol (SubscribeNFT.sol#1503) shadows:
- ERC721.symbol (SubscribeNFT.sol#431) (state variable)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

EIP712._requiresExpectedSigner(bytes32,address,uint0,bytes32,bytes32,uint256) (SubscribeNFT.sol#257-374) uses timestamp for comparisons
Dangerous comparisons:
- require(bool,string)(deadline >= block.timestamp,DEADLINE_EXCEEDED) (SubscribeNFT.sol#365)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

ERC721._safeMint(address,uint256,bytes) (SubscribeNFT.sol#615-628) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version=0.8.14 (SubscribeNFT.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Variable SubscribeNFTStorage_profileId (SubscribeNFT.sol#8) is not in mixedCase
Function EIP712.DOMAIN_SEPARATOR() (SubscribeNFT.sol#340-351) is not in mixedCase
Function ERC721._ERC721_Init(string,string) (SubscribeNFT.sol#465-471) is not in mixedCase
Parameter ERC721._ERC721_Init(string,string).name (SubscribeNFT.sol#465) is not in mixedCase
Parameter ERC721._ERC721_Init(string,string).symbol (SubscribeNFT.sol#465) is not in mixedCase
Variable ERC721_ownerOf (SubscribeNFT.sol#439) is not in mixedCase
Variable ERC721_balanceOf (SubscribeNFT.sol#441) is not in mixedCase
Variable CyberNFTBase_currentIndex (SubscribeNFT.sol#654) is not in mixedCase
Variable CyberNFTBase_burnCount (SubscribeNFT.sol#655) is not in mixedCase
Variable SubscribeNFT.PROFILE (SubscribeNFT.sol#1482) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
SubscribeNFT.sol analyzed (16 contracts with 84 detectors), 16 result(s) found
```

## Slither Log >> Auth.sol

```
Auth.setOwner(address).newOwner (Auth.sol#82) lacks a zero-check on:
- owner = newOwner (Auth.sol#84)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

Auth._Auth_Init(address,Authority) (Auth.sol#51-57) is never used and should be removed
Initializable.disableInitializers() (Auth.sol#32-38) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version=0.8.0 (Auth.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Function Auth._Auth_Init(address,Authority) (Auth.sol#51-57) is not in mixedCase
Parameter Auth._Auth_Init(address,Authority).owner (Auth.sol#51) is not in mixedCase
Parameter Auth._Auth_Init(address,Authority).authority (Auth.sol#51) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
Auth.sol analyzed (3 contracts with 84 detectors), 8 result(s) found
```

## Slither Log >> ERC721.sol

```
ERC721._ERC721_Init(string,string) (ERC721.sol#99-102) is never used and should be removed
ERC721.burn(uint256) (ERC721.sol#214-229) is never used and should be removed
ERC721.mint(address,uint256) (ERC721.sol#199-212) is never used and should be removed
ERC721._safeMint(address,uint256) (ERC721.sol#235-244) is never used and should be removed
ERC721._safeMint(address,uint256,bytes) (ERC721.sol#246-259) is never used and should be removed
Initializable.disableInitializers() (ERC721.sol#32-38) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version=0.8.0 (ERC721.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Function ERC721._ERC721_Init(string,string) (ERC721.sol#99-102) is not in mixedCase
Parameter ERC721._ERC721_Init(string,string).name (ERC721.sol#99) is not in mixedCase
Parameter ERC721._ERC721_Init(string,string).symbol (ERC721.sol#99) is not in mixedCase
Variable ERC721_ownerOf (ERC721.sol#79) is not in mixedCase
Variable ERC721_balanceOf (ERC721.sol#72) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

ERC721 (ERC721.sol#45-268) does not implement functions:
- ERC721.tokenURI(uint256) (ERC721.sol#64)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unimplemented-functions
ERC721.sol analyzed (3 contracts with 84 detectors), 14 result(s) found
```



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```
Initializable_disableInitializers() (Owned.sol#36-42) is never used and should be removed
Owned___Owned_Init(address) (Owned.sol#69-74) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version=>0.8.0 (Owned.sol#4) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Function Owned___Owned_Init(address) (Owned.sol#69-74) is not in mixedCase
Parameter Owned___Owned_Init(address):_owner (Owned.sol#69) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
Owned.sol analyzed (2 contracts with 84 detectors), 6 result(s) found
```

## Slither Log >> RolesAuthority.sol

```
Auth.setOwner(address).newOwner (RolesAuthority.sol#82) lacks a zero-check on :
- owner = newOwner (RolesAuthority.sol#83)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

Initializable_disableInitializers() (RolesAuthority.sol#31-37) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version=>0.8.0 (RolesAuthority.sol#1) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Function Auth___Auth_Init(address,Authority) (RolesAuthority.sol#50-56) is not in mixedCase
Parameter Auth___Auth_Init(address,Authority):_owner (RolesAuthority.sol#50) is not in mixedCase
Parameter Auth___Auth_Init(address,Authority):_authority (RolesAuthority.sol#50) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
RolesAuthority.sol analyzed (4 contracts with 84 detectors), 7 result(s) found
```

## Slither Log >> Create2Deployer.sol

```
Create2Deployer.deploy(bytes,bytes32) (Create2Deployer.sol#7-19) uses assembly
- INLINE ASM (Create2Deployer.sol#10-15)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Pragma version0.8.14 (Create2Deployer.sol#2) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
Create2Deployer.sol analyzed (1 contracts with 84 detectors), 3 result(s) found
```

## Slither Log >> EssenceDeployer.sol

```
EssenceNFT.initialize(uint256,uint256,string,string,bool).name (EssenceDeployer.sol#1061) shadows:
- ERC721.name (EssenceDeployer.sol#428) (state variable)
EssenceNFT.initialize(uint256,uint256,string,string,bool).symbol (EssenceDeployer.sol#1062) shadows:
- ERC721.symbol (EssenceDeployer.sol#430) (state variable)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

EIP712_requiresExpectedSigner(bytes32,address,uint8,bytes32,bytes32,uint256) (EssenceDeployer.sol#356-373) uses timestamp for comparisons
Dangerous comparisons:
- require(bool,string)(deadline >= block.timestamp,DEADLINE_EXCEEDED) (EssenceDeployer.sol#364)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

ERC721_safeMint(address,uint256,bytes) (EssenceDeployer.sol#614-627) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Variable EssenceNFTStorage_profileId (EssenceDeployer.sol#7) is not in mixedCase
Variable EssenceNFTStorage_essenceId (EssenceDeployer.sol#8) is not in mixedCase
Variable EssenceNFTStorage_transferable (EssenceDeployer.sol#9) is not in mixedCase
Function EIP712_DOMAIN_SEPARATOR() (EssenceDeployer.sol#339-350) is not in mixedCase
Function ERC721___ERC721_Init(string,string) (EssenceDeployer.sol#464-470) is not in mixedCase
Parameter ERC721___ERC721_Init(string,string):_name (EssenceDeployer.sol#464) is not in mixedCase
Parameter ERC721___ERC721_Init(string,string):_symbol (EssenceDeployer.sol#464) is not in mixedCase
Variable ERC721___ownerOf (EssenceDeployer.sol#438) is not in mixedCase
Variable ERC721___balanceOf (EssenceDeployer.sol#440) is not in mixedCase
Variable CyberNFTBase_currentIndex (EssenceDeployer.sol#653) is not in mixedCase
Variable CyberNFTBase_burnCount (EssenceDeployer.sol#654) is not in mixedCase
Variable EssenceNFT_PROFILE (EssenceDeployer.sol#1060) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
EssenceDeployer.sol analyzed (16 contracts with 84 detectors), 17 result(s) found
```





## Slither Log >> ProfileDeployer.sol

```
ProfileNFT.initialize(address,string,string).name (ProfileDeployer.sol#2323) shadows:
- ERC721.name (ProfileDeployer.sol#459) (state variable)
ProfileNFT.initialize(address,string,string).symbol (ProfileDeployer.sol#2324) shadows:
- ERC721.symbol (ProfileDeployer.sol#461) (state variable)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

Variable ERC196/UpgradeUpgradeable._upgradeToAndCallUUPS(address,bytes,bool).slot (ProfileDeployer.sol#2128) in ERC196/Upgrade
Upgradeable._upgradeToAndCallUUPS(address,bytes,bool) (ProfileDeployer.sol#2128-2135) potentially used before declaration: require(
bool,string)slot == IMPLEMENTATION_SLOT.ERC196/Upgrade: unsupported proxiableUUID (ProfileDeployer.sol#2129)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#pre-declaration-usage-of-local-variables

EIP712._requiresExpectedSigner(bytes32,address,uint8,bytes32,bytes32,uint256) (ProfileDeployer.sol#387-404) uses timestamp for c
omparisons
Dangerous comparisons:
- require(bool,string)(deadline >= block.timestamp,DEADLINE_EXCEEDED) (ProfileDeployer.sol#395)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Parameter Actions.createProfilePostProcess(DataTypes.CreateProfileParam,bytes,DataTypes.CreateProfilePostProcessData,mapping(ui
nt256 => DataTypes.ProfileStruct),mapping(uint256 => string),mapping(bytes32 => uint256),mapping(address => uint256),mapping(ui
nt256 => mapping(address => bool)))_profileById (ProfileDeployer.sol#1833) is not in mixedCase
Parameter Actions.createProfilePostProcess(DataTypes.CreateProfileParam,bytes,DataTypes.CreateProfilePostProcessData,mapping(ui
nt256 => DataTypes.ProfileStruct),mapping(uint256 => string),mapping(bytes32 => uint256),mapping(address => uint256),mapping(ui
nt256 => mapping(address => bool)))_metadataById (ProfileDeployer.sol#1834) is not in mixedCase
Parameter Actions.createProfilePostProcess(DataTypes.CreateProfileParam,bytes,DataTypes.CreateProfilePostProcessData,mapping(ui
nt256 => DataTypes.ProfileStruct),mapping(uint256 => string),mapping(bytes32 => uint256),mapping(address => uint256),mapping(ui
nt256 => mapping(address => bool)))_profileIdByHandleHash (ProfileDeployer.sol#1835) is not in mixedCase
Parameter Actions.setPrimaryProfile(address,uint256,mapping(address => uint256))_addressToPrimaryProfile (ProfileDeployer.sol#1
858) is not in mixedCase
Parameter Actions.setOperatorApproval(uint256,address,bool,mapping(uint256 => mapping(address => bool)))_operatorApproval (Prof
ileDeployer.sol#1868) is not in mixedCase
Function ReentrancyGuard._reentrancyGuard_init() (ProfileDeployer.sol#1974-1976) is not in mixedCase
Function ERC196/UpgradeUpgradeable._ERC196/Upgrade_init() (ProfileDeployer.sol#2084-2085) is not in mixedCase
Function ERC196/UpgradeUpgradeable._ERC196/Upgrade_init_unchained() (ProfileDeployer.sol#2087-2088) is not in mixedCase
Variable ERC196/UpgradeUpgradeable._gap (ProfileDeployer.sol#2191) is not in mixedCase
Function UUPSUpgradeable._UUPSUpgradeable_init() (ProfileDeployer.sol#2194-2195) is not in mixedCase
Function UUPSUpgradeable._UUPSUpgradeable_init_unchained() (ProfileDeployer.sol#2197-2198) is not in mixedCase
Variable UUPSUpgradeable._self (ProfileDeployer.sol#2199) is not in mixedCase
Variable UUPSUpgradeable._gap (ProfileDeployer.sol#2220) is not in mixedCase
Parameter ProfileNFT.initialize(address,string,string)._owner (ProfileDeployer.sol#2322) is not in mixedCase
Variable ProfileNFT.SUBSCRIBE_BEACON (ProfileDeployer.sol#2251) is not in mixedCase
Variable ProfileNFT.ESSENCE_BEACON (ProfileDeployer.sol#2252) is not in mixedCase
Variable ProfileNFT.ENGINE (ProfileDeployer.sol#2253) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
ProfileDeployer.sol analyzed (26 contracts with 84 detectors), 80 result(s) found
```

## Slither Log >> SubscribeDeployer.sol

```
SubscribeNFT.initialize(uint256,string,string).name (SubscribeDeployer.sol#1503) shadows:
- ERC721.name (SubscribeDeployer.sol#429) (state variable)
SubscribeNFT.initialize(uint256,string,string).symbol (SubscribeDeployer.sol#1504) shadows:
- ERC721.symbol (SubscribeDeployer.sol#431) (state variable)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

EIP712._requiresExpectedSigner(bytes32,address,uint8,bytes32,bytes32,uint256) (SubscribeDeployer.sol#357-374) uses timestamp for
comparisons
Dangerous comparisons:
- require(bool,string)(deadline >= block.timestamp,DEADLINE_EXCEEDED) (SubscribeDeployer.sol#365)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

ERC721._safeMint(address,uint256,bytes) (SubscribeDeployer.sol#615-628) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version0.8.14 (SubscribeDeployer.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Variable SubscribeNFTStorage._profileId (SubscribeDeployer.sol#8) is not in mixedCase
Function EIP712.DOMAIN_SEPARATOR() (SubscribeDeployer.sol#349-351) is not in mixedCase
Function ERC721._ERC721_init(string,string) (SubscribeDeployer.sol#465-471) is not in mixedCase
Parameter ERC721._ERC721_init(string,string)._name (SubscribeDeployer.sol#465) is not in mixedCase
Parameter ERC721._ERC721_init(string,string)._symbol (SubscribeDeployer.sol#465) is not in mixedCase
Variable ERC721._ownerOf (SubscribeDeployer.sol#419) is not in mixedCase
Variable ERC721._balanceOf (SubscribeDeployer.sol#441) is not in mixedCase
Variable CyberNFTBase._currentIndex (SubscribeDeployer.sol#654) is not in mixedCase
Variable CyberNFTBase._burnCount (SubscribeDeployer.sol#655) is not in mixedCase
Variable SubscribeNFT.PROFILE (SubscribeDeployer.sol#1483) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
SubscribeDeployer.sol analyzed (17 contracts with 84 detectors), 16 result(s) found
```



## Slither Log >> FeeMw.sol

```
FeeMw._currencyAllowed(address) (FeeMw.sol#222-224) is never used and should be removed
FeeMw._treasuryAddress() (FeeMw.sol#226-228) is never used and should be removed
FeeMw._treasuryFee() (FeeMw.sol#230-232) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version0.8.14 (FeeMw.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Variable FeeMw.TREASURY (FeeMw.sol#207) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
FeeMw.sol analyzed (4 contracts with 84 detectors), 6 result(s) found
```

## Slither Log >> PermissionedMw.sol

```
Auth.setOwner(address).newOwner (PermissionedMw.sol#82) lacks a zero-check on :
- owner = newOwner (PermissionedMw.sol#83)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

Initializable.disableInitializers() (PermissionedMw.sol#31-37) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version=0.8.0 (PermissionedMw.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Function Auth.__Auth Init(address,Authority) (PermissionedMw.sol#50-56) is not in mixedCase
Parameter Auth.__Auth Init(address,Authority)._owner (PermissionedMw.sol#50) is not in mixedCase
Parameter Auth.__Auth Init(address,Authority)._authority (PermissionedMw.sol#50) is not in mixedCase
Variable PermissionedMw.ENGINE (PermissionedMw.sol#58) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
PermissionedMw.sol analyzed (9 contracts with 84 detectors), 8 result(s) found

Pragma version0.8.14 (CollectDisallowedMw.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
CollectDisallowedMw.sol analyzed (2 contracts with 84 detectors), 2 result(s) found
```

## Slither Log >> CollectFlexPaidMw.sol

```
CollectFlexPaidMw.constructor(address,address).namespace (CollectFlexPaidMw.sol#625) lacks a zero-check on :
- namespace = namespace (CollectFlexPaidMw.sol#626)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

Reentrancy in CollectFlexPaidMw.preProcess(uint256,uint256,address,address,bytes) (CollectFlexPaidMw.sol#654-694):
External calls:
- IERC20(currency).safeTransferFrom(collector,_mwStorage[profileId][essenceId].recipient,amount - treasuryCollected) (CollectFlexPaidMw.sol#671-675)
- IERC20(currency).safeTransferFrom(collector,_treasuryAddress(),treasuryCollected) (CollectFlexPaidMw.sol#678-682)
Event emitted after the call(s):
- CollectFlexPaidMw.Preprocessed(profileId,essenceId,collector,_mwStorage[profileId][essenceId].recipient,currency,amount ,metadataId) (CollectFlexPaidMw.sol#685-693)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-3

Address.verifyCallResult(bool,bytes,string) (CollectFlexPaidMw.sol#467-485) uses assembly
- INLINE_ASM (CollectFlexPaidMw.sol#477-480)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Pragma version0.8.14 (CollectFlexPaidMw.sol#3) allows old versions
solc-0.8.14 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) (CollectFlexPaidMw.sol#409-414):
- (success) = recipient.call{value: amount}() (CollectFlexPaidMw.sol#412)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (CollectFlexPaidMw.sol#436-447):
- (success,returndata) = target.call{value: value}(data) (CollectFlexPaidMw.sol#445)
Low level call in Address.functionStaticCall(address,bytes,string) (CollectFlexPaidMw.sol#453-467):
- (success,returndata) = target.staticcall(data) (CollectFlexPaidMw.sol#465)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Variable FeeMw.TREASURY (CollectFlexPaidMw.sol#207) is not in mixedCase
Variable CollectFlexPaidMw._mwStorage (CollectFlexPaidMw.sol#618) is not in mixedCase
Variable CollectFlexPaidMw._namespace (CollectFlexPaidMw.sol#619) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

CollectFlexPaidMw._namespace (CollectFlexPaidMw.sol#619) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
CollectFlexPaidMw.sol analyzed (10 contracts with 84 detectors), 24 result(s) found
```



## Slither Log >> CollectLimitedTimePaidMw.sol

```
CollectLimitedTimePaidMw.constructor(address,address).namespace (CollectLimitedTimePaidMw.sol#1304) lacks a zero-check on :
- namespace = namespace (CollectLimitedTimePaidMw.sol#1305)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

CollectLimitedTimePaidMw.preProcess(uint256,uint256,address,address,bytes) (CollectLimitedTimePaidMw.sol#1381-1448) uses timestamp for comparisons
Dangerous comparisons:
- require(bool,string)(block.timestamp == _data[profileId][essenceId].startTimestamp,NOT_STARTED) (CollectLimitedTimePaidMw.sol#1395-1398)
- require(bool,string)(block.timestamp == _data[profileId][essenceId].endTimestamp,ENDED) (CollectLimitedTimePaidMw.sol#1400-1403)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Address.verifyCallResult(bool,bytes,string) (CollectLimitedTimePaidMw.sol#1130-1156) uses assembly
- INLINE_ASM (CollectLimitedTimePaidMw.sol#1140-1151)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

CollectLimitedTimePaidMw.preProcess(uint256,uint256,address,address,bytes) (CollectLimitedTimePaidMw.sol#1381-1448) compares to a boolean constant:
- _data[profileId][essenceId].profileRequired == true (CollectLimitedTimePaidMw.sol#1412)
CollectLimitedTimePaidMw.preProcess(uint256,uint256,address,address,bytes) (CollectLimitedTimePaidMw.sol#1381-1448) compares to a boolean constant:
- _data[profileId][essenceId].subscribeRequired == true (CollectLimitedTimePaidMw.sol#1405)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#boolean-equality
```

## Slither Log >> CollectMerkleDropMw.sol

```
MerkleProof.efficientHash(bytes32,bytes32) (CollectMerkleDropMw.sol#255-262) uses assembly
- INLINE_ASM (CollectMerkleDropMw.sol#257-261)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

MerkleProof.multiProofVerify(bytes32[],bool[],bytes32,bytes32[]) (CollectMerkleDropMw.sol#105-112) is never used and should be removed
MerkleProof.multiProofVerifyCallData(bytes32[],bool[],bytes32,bytes32[]) (CollectMerkleDropMw.sol#119-126) is never used and should be removed
MerkleProof.processMultiProof(bytes32[],bool[],bytes32[]) (CollectMerkleDropMw.sol#138-187) is never used and should be removed
MerkleProof.processMultiProofCallData(bytes32[],bool[],bytes32[]) (CollectMerkleDropMw.sol#194-243) is never used and should be removed
MerkleProof.processProofCallData(bytes32[],bytes32) (CollectMerkleDropMw.sol#91-97) is never used and should be removed
MerkleProof.verifyCallData(bytes32[],bytes32,bytes32) (CollectMerkleDropMw.sol#70-72) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version<=0.8.14 (CollectMerkleDropMw.sol#3) allows old versions
solc 0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
CollectMerkleDropMw.sol analyzed (3 contracts with 84 detectors), 9 result(s) found

ERC721.ERC721_init(string,string) (CollectOnlySubscribedMw.sol#95-101) is never used and should be removed
ERC721.burn(uint256) (CollectOnlySubscribedMw.sol#213-228) is never used and should be removed
ERC721.mint(address,uint256) (CollectOnlySubscribedMw.sol#198-211) is never used and should be removed
ERC721.safeMint(address,uint256) (CollectOnlySubscribedMw.sol#234-243) is never used and should be removed
ERC721.safeMint(address,uint256,bytes) (CollectOnlySubscribedMw.sol#245-250) is never used and should be removed
Initializable.disableInitializers() (CollectOnlySubscribedMw.sol#31-37) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version==0.8.0 (CollectOnlySubscribedMw.sol#3) allows old versions
solc 0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Function ERC721.ERC721_init(string,string) (CollectOnlySubscribedMw.sol#95-101) is not in mixedCase
Parameter ERC721.ERC721_init(string,string).name (CollectOnlySubscribedMw.sol#95) is not in mixedCase
Parameter ERC721.ERC721_init(string,string).symbol (CollectOnlySubscribedMw.sol#95) is not in mixedCase
Variable ERC721.ownerOf (CollectOnlySubscribedMw.sol#69) is not in mixedCase
Variable ERC721.balanceOf (CollectOnlySubscribedMw.sol#71) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

ERC721 (CollectOnlySubscribedMw.sol#44-259) does not implement functions:
- ERC721.tokenURI(uint256) (CollectOnlySubscribedMw.sol#63)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unimplemented-functions
CollectOnlySubscribedMw.sol analyzed (8 contracts with 84 detectors), 14 result(s) found
```



## Slither Log >> CollectPaidMw.sol

```
Auth.setOwner(address).newOwner (CollectPaidMw.sol#313) lacks a zero-check on :
- owner = newOwner (CollectPaidMw.sol#314)
CollectPaidMw.constructor(address).namespace (CollectPaidMw.sol#2177) lacks a zero-check on :
- namespace = namespace (CollectPaidMw.sol#2178)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

Variable 'ERC721._checkOnERC721Received(address,address,uint256,bytes).retval (CollectPaidMw.sol#2104)' in ERC721._checkOnERC721Received(address,address,uint256,bytes) (CollectPaidMw.sol#2102-2110) potentially used before declaration: retval != IERC721Receiver.onERC721Received.selector (CollectPaidMw.sol#2105)
Variable 'ERC721._checkOnERC721Received(address,address,uint256,bytes).reason (CollectPaidMw.sol#2108)' in ERC721._checkOnERC721Received(address,address,uint256,bytes) (CollectPaidMw.sol#2102-2110) potentially used before declaration: reason.length == 0 (CollectPaidMw.sol#2109)
Variable 'ERC721._checkOnERC721Received(address,address,uint256,bytes).reason (CollectPaidMw.sol#2108)' in ERC721._checkOnERC721Received(address,address,uint256,bytes) (CollectPaidMw.sol#2102-2110) potentially used before declaration: revert(uint256,uint256)(32 * reason,mload(uint256)(reason)) (CollectPaidMw.sol#2114)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#pre-declaration-usage-of-local-variables

Address.isContract(address) (CollectPaidMw.sol#1460-1467) uses assembly
- INLINE ASM (CollectPaidMw.sol#1463-1465)
Address.functionCallWithValue(address,bytes,uint256,string) (CollectPaidMw.sol#1506-1528) uses assembly
- INLINE ASM (CollectPaidMw.sol#1520-1523)
ERC721._checkOnERC721Received(address,address,uint256,bytes) (CollectPaidMw.sol#2102-2110) uses assembly
- INLINE ASM (CollectPaidMw.sol#2113-2115)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Pragma version pragma solidity (CollectPaidMw.sol#2) allows old versions
solidity 0.8.14 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) (CollectPaidMw.sol#1460-1474):
- (success) = recipient.call{value: amount}() (CollectPaidMw.sol#1472)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (CollectPaidMw.sol#1506-1528):
- (success,returnData) = target.call{value: weiValue}(data) (CollectPaidMw.sol#1514)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Variable FeeMw.TREASURY (CollectPaidMw.sol#207) is not in mixedCase
Function Auth.__Auth_Init(address,Authority) (CollectPaidMw.sol#281-287) is not in mixedCase
Parameter Auth.__Auth_Init(address,Authority)._owner (CollectPaidMw.sol#281) is not in mixedCase
Parameter Auth.__Auth_Init(address,Authority)._authority (CollectPaidMw.sol#281) is not in mixedCase
Variable CollectPaidMw.paidEssenceData (CollectPaidMw.sol#2169-2170) is not in mixedCase
Variable CollectPaidMw.namespace (CollectPaidMw.sol#2171) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

Redundant expression "this (CollectPaidMw.sol#1645)" in Context (CollectPaidMw.sol#1639-1646)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#redundant-statements

CollectPaidMw.namespace (CollectPaidMw.sol#2171) should be immutable
ERC721.name (CollectPaidMw.sol#1060) should be immutable
ERC721.symbol (CollectPaidMw.sol#1063) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
CollectPaidMw.sol analyzed [28 contracts with 84 detectors], 46 result(s) found
```

## Slither Log >> CollectPermissionMw.sol

```
Variable 'ERC721._checkOnERC721Received(address,address,uint256,bytes).retval (CollectPermissionMw.sol#931)' in ERC721._checkOnERC721Received(address,address,uint256,bytes) (CollectPermissionMw.sol#929-946) potentially used before declaration: retval != IERC721Receiver.onERC721Received.selector (CollectPermissionMw.sol#932)
Variable 'ERC721._checkOnERC721Received(address,address,uint256,bytes).reason (CollectPermissionMw.sol#935)' in ERC721._checkOnERC721Received(address,address,uint256,bytes) (CollectPermissionMw.sol#929-946) potentially used before declaration: reason.length == 0 (CollectPermissionMw.sol#936)
Variable 'ERC721._checkOnERC721Received(address,address,uint256,bytes).reason (CollectPermissionMw.sol#935)' in ERC721._checkOnERC721Received(address,address,uint256,bytes) (CollectPermissionMw.sol#929-946) potentially used before declaration: revert(uint256,uint256)(32 * reason,mload(uint256)(reason)) (CollectPermissionMw.sol#941)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#pre-declaration-usage-of-local-variables

EIP712.requiresExpectedSigner(bytes32,address,uint8,bytes32,bytes32,uint256) (CollectPermissionMw.sol#178-195) uses timestamp for comparisons
Dangerous comparisons:
- require(bool,string)(deadline == block.timestamp,DEADLINE_EXCEEDED) (CollectPermissionMw.sol#186)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Address.isContract(address) (CollectPermissionMw.sol#286-293) uses assembly
- INLINE ASM (CollectPermissionMw.sol#289-291)
Address.functionCallWithValue(address,bytes,uint256,string) (CollectPermissionMw.sol#332-354) uses assembly
- INLINE ASM (CollectPermissionMw.sol#346-349)
ERC721._checkOnERC721Received(address,address,uint256,bytes) (CollectPermissionMw.sol#929-946) uses assembly
- INLINE ASM (CollectPermissionMw.sol#940-942)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage
```



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```
Pragma version0.8.14 (CollectPermissionMw.sol#3) allows old versions
solc-0.8.14 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) (CollectPermissionMw.sol#295-300):
- (success) = recipient.call{value: amount}() (CollectPermissionMw.sol#298)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (CollectPermissionMw.sol#332-354):
- (success,returndata) = target.call{value: weiValue}(data) (CollectPermissionMw.sol#340)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Function EIP712.DOMAIN_SEPARATOR() (CollectPermissionMw.sol#161-172) is not in mixedCase
Variable CollectPermissionMw._signerStorage (CollectPermissionMw.sol#901-902) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

Redundant expression "this (CollectPermissionMw.sol#472)" inContext (CollectPermissionMw.sol#466-475)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#redundant-statements

ERC721._name (CollectPermissionMw.sol#487) should be immutable
ERC721._symbol (CollectPermissionMw.sol#499) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
CollectPermissionMw.sol analyzed (16 contracts with 84 detectors), 38 result(s) found
```

## Slither Log >> CollectPermissionPaidMw.sol

```
CollectPermissionPaidMw.constructor(address,address).namespace (CollectPermissionPaidMw.sol#725) lacks a zero-check on :
- namespace = namespace (CollectPermissionPaidMw.sol#725)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

EIP712._requiresExpectedSigner(bytes32,address,uint0,bytes32,bytes32,uint256) (CollectPermissionPaidMw.sol#274-291) uses timestamp
for comparisons
Dangerous comparisons:
- require(bool,string)(deadline >= block.timestamp,DEADLINE_EXCEEDED) (CollectPermissionPaidMw.sol#282)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Address.verifyCallResult(bool,bytes,string) (CollectPermissionPaidMw.sol#559-577) uses assembly
- INLINE_ASM (CollectPermissionPaidMw.sol#569-572)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Pragma version0.8.14 (CollectPermissionPaidMw.sol#3) allows old versions
solc-0.8.14 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) (CollectPermissionPaidMw.sol#501-506):
- (success) = recipient.call{value: amount}() (CollectPermissionPaidMw.sol#504)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (CollectPermissionPaidMw.sol#528-539):
- (success,returndata) = target.call{value: value}(data) (CollectPermissionPaidMw.sol#537)
Low level call in Address.functionStaticCall(address,bytes,string) (CollectPermissionPaidMw.sol#545-554):
- (success,returndata) = target.staticcall(data) (CollectPermissionPaidMw.sol#552)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Variable FeeMw.TREASURY (CollectPermissionPaidMw.sol#207) is not in mixedCase
Function EIP712.DOMAIN_SEPARATOR() (CollectPermissionPaidMw.sol#257-268) is not in mixedCase
Variable CollectPermissionPaidMw._signerStorage (CollectPermissionPaidMw.sol#717-718) is not in mixedCase
Variable CollectPermissionPaidMw._namespace (CollectPermissionPaidMw.sol#719) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

CollectPermissionPaidMw._namespace (CollectPermissionPaidMw.sol#719) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
CollectPermissionPaidMw.sol analyzed (11 contracts with 84 detectors), 28 result(s) found
```



## Slither Log >> FeeCreationMw.sol

```
Auth.setOwner(address).newOwner (FeeCreationMw.sol#84) lacks a zero-check on :
  - owner = newOwner (FeeCreationMw.sol#85)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

Address.verifyCallResult(bool,bytes,string) (FeeCreationMw.sol#812-830) uses assembly
  - INLINE_ASM (FeeCreationMw.sol#822-825)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Address.functionCall(address,bytes) (FeeCreationMw.sol#761-763) is never used and should be removed
Address.functionCall(address,bytes,string) (FeeCreationMw.sol#765-771) is never used and should be removed
Address.functionCallWithValue(address,bytes,uint256) (FeeCreationMw.sol#773-779) is never used and should be removed
Address.functionCallWithValue(address,bytes,uint256,string) (FeeCreationMw.sol#781-792) is never used and should be removed
Address.functionStaticCall(address,bytes) (FeeCreationMw.sol#794-796) is never used and should be removed
Address.functionStaticCall(address,bytes,string) (FeeCreationMw.sol#798-807) is never used and should be removed
Address.isContract(address) (FeeCreationMw.sol#749-752) is never used and should be removed
Address.verifyCallResult(bool,bytes,string) (FeeCreationMw.sol#812-830) is never used and should be removed
Initializable.disableInitializers() (FeeCreationMw.sol#33-39) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version=0.8.0 (FeeCreationMw.sol#3) allows old versions
solc-0.8.14 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) (FeeCreationMw.sol#754-759):
  - (success) = recipient.call{value: amount}{} (FeeCreationMw.sol#757)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (FeeCreationMw.sol#781-792):
  - (success,returndata) = target.call{value: value}{data} (FeeCreationMw.sol#790)
Low level call in Address.functionStaticCall(address,bytes,string) (FeeCreationMw.sol#798-807):
  - (success,returndata) = target.staticcall{data} (FeeCreationMw.sol#805)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Function Auth.__Auth_Init(address,Authority) (FeeCreationMw.sol#52-58) is not in mixedCase
Parameter Auth.__Auth_Init(address,Authority).owner (FeeCreationMw.sol#52) is not in mixedCase
Parameter Auth.__Auth_Init(address,Authority).authority (FeeCreationMw.sol#52) is not in mixedCase
Variable PermissionedMw.ENGINE (FeeCreationMw.sol#59) is not in mixedCase
Variable FeeCreationMw._mDataByNamespace (FeeCreationMw.sol#65) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
FeeCreationMw.sol analyzed (13 contracts with 84 detectors), 21 result(s) found
```

## Slither Log >> PermissionedFeeCreationMw.sol

```
Auth.setOwner(address).newOwner (PermissionedFeeCreationMw.sol#313) lacks a zero-check on :
  - owner = newOwner (PermissionedFeeCreationMw.sol#314)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

EIP712._requiresExpectedSigner(bytes32,address,uint8,bytes32,bytes32,uint256) (PermissionedFeeCreationMw.sol#754-771) uses times
tamp for comparisons
  Dangerous comparisons:
  - require(bool,string)(deadline >= block.timestamp,DEADLINE_EXCEEDED) (PermissionedFeeCreationMw.sol#762)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Address.verifyCallResult(bool,bytes,string) (PermissionedFeeCreationMw.sol#1001-1019) uses assembly
  - INLINE_ASM (PermissionedFeeCreationMw.sol#1011-1014)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Address.functionCall(address,bytes) (PermissionedFeeCreationMw.sol#950-952) is never used and should be removed
Address.functionCall(address,bytes,string) (PermissionedFeeCreationMw.sol#954-960) is never used and should be removed
Address.functionCallWithValue(address,bytes,uint256) (PermissionedFeeCreationMw.sol#962-968) is never used and should be removed
Address.functionCallWithValue(address,bytes,uint256,string) (PermissionedFeeCreationMw.sol#970-981) is never used and should be
removed
Address.functionStaticCall(address,bytes) (PermissionedFeeCreationMw.sol#983-985) is never used and should be removed
Address.functionStaticCall(address,bytes,string) (PermissionedFeeCreationMw.sol#987-996) is never used and should be removed
Address.isContract(address) (PermissionedFeeCreationMw.sol#938-941) is never used and should be removed
Address.verifyCallResult(bool,bytes,string) (PermissionedFeeCreationMw.sol#1001-1019) is never used and should be removed
EIP712._requiresExpectedSigner(bytes32,address,DataTypes.EIP712Signature) (PermissionedFeeCreationMw.sol#773-786) is never used
and should be removed
FeeMw.currencyAllowed(address) (PermissionedFeeCreationMw.sol#222-224) is never used and should be removed
Initializable.disableInitializers() (PermissionedFeeCreationMw.sol#262-268) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code
```



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```
Low level call in Address.sendValue(address,uint256) (PermissionedFeeCreationMw.sol#943-948):
- (success) = recipient.call{value: amount}() (PermissionedFeeCreationMw.sol#946)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (PermissionedFeeCreationMw.sol#970-981):
- (success,returndata) = target.call{value: value}(data) (PermissionedFeeCreationMw.sol#979)
Low level call in Address.functionStaticCall(address,bytes,string) (PermissionedFeeCreationMw.sol#987-996):
- (success,returndata) = target.staticcall(data) (PermissionedFeeCreationMw.sol#994)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Variable FeeMw.TREASURY (PermissionedFeeCreationMw.sol#207) is not in mixedCase
Function Auth.__Auth_Init(address,Authority) (PermissionedFeeCreationMw.sol#281-287) is not in mixedCase
Parameter Auth.__Auth_Init(address,Authority)._owner (PermissionedFeeCreationMw.sol#281) is not in mixedCase
Parameter Auth.__Auth_Init(address,Authority)._authority (PermissionedFeeCreationMw.sol#281) is not in mixedCase
Variable PermissionedMw.ENGINE (PermissionedFeeCreationMw.sol#689) is not in mixedCase
Function EIP712.DOMAIN_SEPARATOR() (PermissionedFeeCreationMw.sol#737-748) is not in mixedCase
Variable PermissionedFeeCreationMw._mDataByNamespace (PermissionedFeeCreationMw.sol#1061) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
PermissionedFeeCreationMw.sol analyzed (17 contracts with 84 detectors), 26 result(s) found
```

## Slither Log >> StableFeeCreationMw.sol

```
Auth.setOwner(address).newOwner (StableFeeCreationMw.sol#83) lacks a zero-check on :
- owner = newOwner (StableFeeCreationMw.sol#84)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

EIP712_requiresExpectedSigner(bytes32,address,uint8,bytes32,bytes32,uint256) (StableFeeCreationMw.sol#658-675) uses timestamp f
or comparisons
Dangerous comparisons:
- require(bool,string){deadline >= block.timestamp,DEADLINE_EXCEEDED} (StableFeeCreationMw.sol#666)
StableFeeCreationMw._checkExpectedSigner(bytes32,address,uint8,bytes32,bytes32,uint256) (StableFeeCreationMw.sol#1251-1271) uses
timestamp for comparisons
Dangerous comparisons:
- deadline < block.timestamp (StableFeeCreationMw.sol#1259)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Address.verifyCallResult(bool,bytes,string) (StableFeeCreationMw.sol#923-941) uses assembly
- INLINE ASM (StableFeeCreationMw.sol#933-936)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage
```

```
Pragma version0.8.14 (StableFeeCreationMw.sol#3) allows old versions
solc-0.8.14 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) (StableFeeCreationMw.sol#865-876):
- (success) = recipient.call{value: amount}() (StableFeeCreationMw.sol#868)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (StableFeeCreationMw.sol#892-903):
- (success,returndata) = target.call{value: value}(data) (StableFeeCreationMw.sol#901)
Low level call in Address.functionStaticCall(address,bytes,string) (StableFeeCreationMw.sol#909-918):
- (success,returndata) = target.staticcall(data) (StableFeeCreationMw.sol#916)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Function Auth.__Auth_Init(address,Authority) (StableFeeCreationMw.sol#51-57) is not in mixedCase
Parameter Auth.__Auth_Init(address,Authority)._owner (StableFeeCreationMw.sol#51) is not in mixedCase
Parameter Auth.__Auth_Init(address,Authority)._authority (StableFeeCreationMw.sol#51) is not in mixedCase
Variable PermissionedMw.ENGINE (StableFeeCreationMw.sol#505) is not in mixedCase
Function EIP712.DOMAIN_SEPARATOR() (StableFeeCreationMw.sol#641-652) is not in mixedCase
Variable StableFeeCreationMw._mDataByNamespace (StableFeeCreationMw.sol#992) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
StableFeeCreationMw.sol analyzed (15 contracts with 84 detectors), 26 result(s) found
```

## Slither Log >> SubscribeDisallowedMw.sol

```
Pragma version0.8.14 (SubscribeDisallowedMw.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
SubscribeDisallowedMw.sol analyzed (2 contracts with 84 detectors), 2 result(s) found
```



## Slither Log >> SubscribeOnlyOnceMw.sol

```
Pragma version0.8.14 (SubscribeOnlyOnceMw.sol#3) allows old versions
solc-0.8.14 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) (SubscribeOnlyOnceMw.sol#57-62):
- (success) = recipient.call{value: amount}() (SubscribeOnlyOnceMw.sol#60)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (SubscribeOnlyOnceMw.sol#94-116):
- (success,returndata) = target.call{value: weiValue}(data) (SubscribeOnlyOnceMw.sol#102)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Redundant expression "this (SubscribeOnlyOnceMw.sol#250)" inContext (SubscribeOnlyOnceMw.sol#244-253)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#redundant-statements

ERC721._name (SubscribeOnlyOnceMw.sol#265) should be immutable
ERC721._symbol (SubscribeOnlyOnceMw.sol#268) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
SubscribeOnlyOnceMw.sol analyzed (14 contracts with 84 detectors), 35 result(s) found
```

## Slither Log >> SubscribePaidMw.sol

```
Auth.setOwner(address).newOwner (SubscribePaidMw.sol#314) lacks a zero-check on :
- owner = newOwner (SubscribePaidMw.sol#315)
SubscribePaidMw.constructor(address,address).namespace (SubscribePaidMw.sol#1654) lacks a zero-check on :
- namespace = namespace (SubscribePaidMw.sol#1655)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

Variable "ERC721._checkOnERC721Received(address,address,uint256,bytes).retval (SubscribePaidMw.sol#1586)" in ERC721._checkOnERC721Received(address,address,uint256,bytes) (SubscribePaidMw.sol#1584-1601) potentially used before declaration: retval != IERC721Receiver.onERC721Received.selector (SubscribePaidMw.sol#1587)
Variable "ERC721._checkOnERC721Received(address,address,uint256,bytes).reason (SubscribePaidMw.sol#1590)" in ERC721._checkOnERC721Received(address,address,uint256,bytes) (SubscribePaidMw.sol#1584-1601) potentially used before declaration: reason.length == 0 (SubscribePaidMw.sol#1591)
Variable "ERC721._checkOnERC721Received(address,address,uint256,bytes).reason (SubscribePaidMw.sol#1590)" in ERC721._checkOnERC721Received(address,address,uint256,bytes) (SubscribePaidMw.sol#1584-1601) potentially used before declaration: revert(uint256,uint256)((32 + reason,load(uint256)(reason)) (SubscribePaidMw.sol#1596)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#pre-declaration-usage-of-local-variables

Address.verifyCallResult(bool,bytes,string) (SubscribePaidMw.sol#908-926) uses assembly
- INLINE_ASM (SubscribePaidMw.sol#918-921)
ERC721._checkOnERC721Received(address,address,uint256,bytes) (SubscribePaidMw.sol#1584-1601) uses assembly
- INLINE_ASM (SubscribePaidMw.sol#1595-1597)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Pragma version0.8.14 (SubscribePaidMw.sol#3) allows old versions
solc-0.8.14 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) (SubscribePaidMw.sol#856-855):
- (success) = recipient.call{value: amount}() (SubscribePaidMw.sol#853)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (SubscribePaidMw.sol#877-888):
- (success,returndata) = target.call{value: value}(data) (SubscribePaidMw.sol#886)
Low level call in Address.functionStaticCall(address,bytes,string) (SubscribePaidMw.sol#894-903):
- (success,returndata) = target.staticcall(data) (SubscribePaidMw.sol#901)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Variable FeeMw.TREASURY (SubscribePaidMw.sol#267) is not in mixedCase
Function Auth.__Auth_Init(address,Authority) (SubscribePaidMw.sol#282-288) is not in mixedCase
Parameter Auth.__Auth_Init(address,Authority)._owner (SubscribePaidMw.sol#282) is not in mixedCase
Parameter Auth.__Auth_Init(address,Authority)._authority (SubscribePaidMw.sol#282) is not in mixedCase
Variable SubscribePaidMw._paidSubscribeData (SubscribePaidMw.sol#1647) is not in mixedCase
Variable SubscribePaidMw._namespace (SubscribePaidMw.sol#1648) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

Redundant expression "this (SubscribePaidMw.sol#1127)" inContext (SubscribePaidMw.sol#1121-1130)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#redundant-statements

ERC721._name (SubscribePaidMw.sol#1142) should be immutable
ERC721._symbol (SubscribePaidMw.sol#1145) should be immutable
SubscribePaidMw._namespace (SubscribePaidMw.sol#1648) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
SubscribePaidMw.sol analyzed (28 contracts with 84 detectors), 47 result(s) found
```





## Slither Log >> CyberBoxNFT.sol

```
CyberBoxNFT.initialize(address,address,string,string).owner (CyberBoxNFT.sol#1296) shadows:  
  - Owned.owner (CyberBoxNFT.sol#790) (state variable)  
CyberBoxNFT.initialize(address,address,string,string).name (CyberBoxNFT.sol#1298) shadows:  
  - ERC721.name (CyberBoxNFT.sol#444) (state variable)  
CyberBoxNFT.initialize(address,address,string,string).symbol (CyberBoxNFT.sol#1299) shadows:  
  - ERC721.symbol (CyberBoxNFT.sol#446) (state variable)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing  
  
CyberBoxNFT.initialize(address,address,string,string).signer (CyberBoxNFT.sol#1297) lacks a zero-check on:  
  - signer = signer (CyberBoxNFT.sol#1301)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation  
  
Variable 'ERC1967UpgradeUpgradeable._upgradeToAndCallUUPS(address,bytes,bool).slot (CyberBoxNFT.sol#1161)' in ERC1967UpgradeUpgradeable._upgradeToAndCallUUPS(address,bytes,bool) (CyberBoxNFT.sol#1153-1168) potentially used before declaration: require(bool,string){slot == IMPLEMENTATION_SLOT,ERC1967Upgrade: unsupported proxiableUUID} (CyberBoxNFT.sol#1162)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#pre-declaration-usage-of-local-variables  
  
Pragma solidity>=0.8.14 (CyberBoxNFT.sol#3) allows old versions  
solidity>=0.8.14 is not recommended for deployment  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity  
  
Low level call in AddressUpgradeable.sendValue(address,uint256) (CyberBoxNFT.sol#979-984):  
  - {success} = recipient.call{value: amount}{} (CyberBoxNFT.sol#982)  
Low level call in AddressUpgradeable.functionCallWithValue(address,bytes,uint256,string) (CyberBoxNFT.sol#1000-1015):  
  - {success,returndata} = target.call{value: value}[data] (CyberBoxNFT.sol#1013)  
Low level call in AddressUpgradeable.functionStaticCall(address,bytes,string) (CyberBoxNFT.sol#1021-1026):  
  - {success,returndata} = target.staticcall{data} (CyberBoxNFT.sol#1026)  
Low level call in ERC1967UpgradeUpgradeable.functionDelegateCall(address,bytes) (CyberBoxNFT.sol#1217-1222):  
  - {success,returndata} = target.delegatecall{data} (CyberBoxNFT.sol#1220)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls  
  
Variable CyberBoxNFTStorage.signer (CyberBoxNFT.sol#11) is not in mixedCase  
Function EIP712.DOMAIN_SEPARATOR() (CyberBoxNFT.sol#355-366) is not in mixedCase  
Function ERC721.__ERC721_Init(string,string) (CyberBoxNFT.sol#480-486) is not in mixedCase  
Parameter ERC721.__ERC721_Init(string,string)._name (CyberBoxNFT.sol#480) is not in mixedCase  
Parameter ERC721.__ERC721_Init(string,string)._symbol (CyberBoxNFT.sol#486) is not in mixedCase  
Variable ERC721.ownerOf (CyberBoxNFT.sol#454) is not in mixedCase  
Variable ERC721.balanceOf (CyberBoxNFT.sol#456) is not in mixedCase  
Variable CyberNFTBase.currentIndex (CyberBoxNFT.sol#669) is not in mixedCase  
Variable CyberNFTBase.burnCount (CyberBoxNFT.sol#670) is not in mixedCase  
Function Owned.__Owned_Init(address) (CyberBoxNFT.sol#810-815) is not in mixedCase  
Parameter Owned.__Owned_Init(address)._owner (CyberBoxNFT.sol#810) is not in mixedCase  
Function ERC1967UpgradeUpgradeable.__ERC1967Upgrade_init() (CyberBoxNFT.sol#1117-1118) is not in mixedCase  
Function ERC1967UpgradeUpgradeable.__ERC1967Upgrade_init_unchained() (CyberBoxNFT.sol#1120-1121) is not in mixedCase  
Variable ERC1967UpgradeUpgradeable.__gap (CyberBoxNFT.sol#1224) is not in mixedCase  
Function UUPSUpgradeable.__UUPSUpgradeable_init() (CyberBoxNFT.sol#1227-1228) is not in mixedCase  
Function UUPSUpgradeable.__UUPSUpgradeable_init_unchained() (CyberBoxNFT.sol#1230-1231) is not in mixedCase  
Variable UUPSUpgradeable.__self (CyberBoxNFT.sol#1232) is not in mixedCase  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions  
CyberBoxNFT.sol analyzed (21 contracts with 84 detectors), 59 result(s) found
```

## Slither Log >> CyberGrandNFT.sol

```
CyberGrandNFT.initialize(address,address,string,string,string).owner (CyberGrandNFT.sol#1296) shadows:  
  - Owned.owner (CyberGrandNFT.sol#880) (state variable)  
CyberGrandNFT.initialize(address,address,string,string,string).name (CyberGrandNFT.sol#1298) shadows:  
  - ERC721.name (CyberGrandNFT.sol#445) (state variable)  
CyberGrandNFT.initialize(address,address,string,string,string).symbol (CyberGrandNFT.sol#1299) shadows:  
  - ERC721.symbol (CyberGrandNFT.sol#447) (state variable)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing  
  
CyberGrandNFT.initialize(address,address,string,string,string).signer (CyberGrandNFT.sol#1297) lacks a zero-check on:  
  - signer = signer (CyberGrandNFT.sol#1302)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation  
  
Variable 'ERC1967UpgradeUpgradeable._upgradeToAndCallUUPS(address,bytes,bool).slot (CyberGrandNFT.sol#1160)' in ERC1967UpgradeUpgradeable._upgradeToAndCallUUPS(address,bytes,bool) (CyberGrandNFT.sol#1152-1167) potentially used before declaration: require(bool,string){slot == IMPLEMENTATION_SLOT,ERC1967Upgrade: unsupported proxiableUUID} (CyberGrandNFT.sol#1161)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#pre-declaration-usage-of-local-variables
```



**INSPECTOR  
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```
Pragma version0.8.14 (CyberGrandNFT.sol#3) allows old versions  
solc-0.8.14 is not recommended for deployment  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
```

```
Low level call in AddressUpgradeable.sendValue(address,uint256) (CyberGrandNFT.sol#979-984):  
- (success) = recipient.call{value: amount}() (CyberGrandNFT.sol#982)  
Low level call in AddressUpgradeable.functionCallWithValue(address,bytes,uint256,string) (CyberGrandNFT.sol#1006-1015):  
- (success,returndata) = target.call{value: value}(data) (CyberGrandNFT.sol#1013)  
Low level call in AddressUpgradeable.functionStaticCall(address,bytes,string) (CyberGrandNFT.sol#1021-1028):  
- (success,returndata) = target.staticcall(data) (CyberGrandNFT.sol#1026)  
Low level call in ERC1967UpgradeUpgradeable.functionDelegateCall(address,bytes) (CyberGrandNFT.sol#1216-1221):  
- (success,returndata) = target.delegatecall(data) (CyberGrandNFT.sol#1219)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls
```

```
Variable CyberGrandNFTStorage._signer (CyberGrandNFT.sol#18) is not in mixedCase  
Variable CyberGrandNFTStorage.tokenURI (CyberGrandNFT.sol#11) is not in mixedCase  
Function EIP712.DOMAIN_SEPARATOR() (CyberGrandNFT.sol#356-367) is not in mixedCase  
Function ERC721__ERC721_Init(string,string) (CyberGrandNFT.sol#481-487) is not in mixedCase  
Parameter ERC721__ERC721_Init(string,string)._name (CyberGrandNFT.sol#481) is not in mixedCase  
Parameter ERC721__ERC721_Init(string,string)._symbol (CyberGrandNFT.sol#481) is not in mixedCase  
Variable ERC721__ownerOf (CyberGrandNFT.sol#455) is not in mixedCase  
Variable ERC721__balanceOf (CyberGrandNFT.sol#457) is not in mixedCase  
Variable CyberNFTBase._currentIndex (CyberGrandNFT.sol#670) is not in mixedCase  
Variable CyberNFTBase._burnCount (CyberGrandNFT.sol#671) is not in mixedCase  
Function Owned__Owned_Init(address) (CyberGrandNFT.sol#892-897) is not in mixedCase  
Parameter Owned__Owned_Init(address)._owner (CyberGrandNFT.sol#892) is not in mixedCase  
Function ERC1967UpgradeUpgradeable__ERC1967Upgrade_init() (CyberGrandNFT.sol#1116-1117) is not in mixedCase  
Function ERC1967UpgradeUpgradeable__ERC1967Upgrade_init_unchained() (CyberGrandNFT.sol#1119-1120) is not in mixedCase  
Variable ERC1967UpgradeUpgradeable__gap (CyberGrandNFT.sol#1223) is not in mixedCase  
Function UUPSUpgradeable__UUPSUpgradeable_init() (CyberGrandNFT.sol#1226-1227) is not in mixedCase  
Function UUPSUpgradeable__UUPSUpgradeable_init_unchained() (CyberGrandNFT.sol#1229-1230) is not in mixedCase  
Variable UUPSUpgradeable__self (CyberGrandNFT.sol#1231) is not in mixedCase  
Variable UUPSUpgradeable__gap (CyberGrandNFT.sol#1260) is not in mixedCase  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions  
CyberGrandNFT.sol analyzed [21 contracts with 84 detectors], 61 result(s) found
```

## Slither Log >> CyberVault.sol

```
CyberVault.constructor(address).owner (CyberVault.sol#965) shadows:  
- Owned.owner (CyberVault.sol#96) (state variable)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing
```

```
CyberVault.constructor(address).owner (CyberVault.sol#965) lacks a zero-check on :  
- _signer = owner (CyberVault.sol#966)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation
```

```
Reentrancy in CyberVault.deposit(string,address,uint256) (CyberVault.sol#1133-1146):  
External calls:  
- IERC20(currency).safeTransferFrom(msg.sender,address(this),amount) (CyberVault.sol#1142)  
State variables written after the call(s):  
- _balanceByProfileByCurrency[profileId][currency] += amount (CyberVault.sol#1144)  
Reentrancy in CyberVault.deposit1155(string,address,uint256,uint256) (CyberVault.sol#1178-1200):  
External calls:  
- IERC1155(currency).safeTransferFrom(msg.sender,address(this),tokenId,amount,_) (CyberVault.sol#1188-1194)  
State variables written after the call(s):  
- _balanceByProfileByCurrencyByTokenID[profileId][currency][tokenId] += amount (CyberVault.sol#1196-1198)  
Reentrancy in CyberVault.deposit721(string,address,uint256) (CyberVault.sol#1155-1168):  
External calls:  
- IERC721(currency).safeTransferFrom(msg.sender,address(this),tokenId) (CyberVault.sol#1164)  
State variables written after the call(s):  
- _balanceByProfileByCurrencyByTokenID[profileId][currency][tokenId] = 1 (CyberVault.sol#1166)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-2
```

```
Pragma version0.8.14 (CyberVault.sol#3) allows old versions  
solc-0.8.14 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) (CyberVault.sol#693-698):  
- (success) = recipient.call{value: amount}() (CyberVault.sol#696)  
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (CyberVault.sol#720-731):  
- (success,returndata) = target.call{value: value}(data) (CyberVault.sol#728)  
Low level call in Address.functionStaticCall(address,bytes,string) (CyberVault.sol#737-746):  
- (success,returndata) = target.staticcall(data) (CyberVault.sol#744)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls
```

```
Function ReentrancyGuard__ReentrancyGuard_init() (CyberVault.sol#58-60) is not in mixedCase  
Function Owned__Owned_Init(address) (CyberVault.sol#108-113) is not in mixedCase  
Parameter Owned__Owned_Init(address)._owner (CyberVault.sol#108) is not in mixedCase  
Function EIP712.DOMAIN_SEPARATOR() (CyberVault.sol#282-293) is not in mixedCase  
Variable CyberVault._signer (CyberVault.sol#956) is not in mixedCase  
Variable CyberVault._balanceByProfileByCurrency (CyberVault.sol#958) is not in mixedCase  
Variable CyberVault._balanceByProfileByCurrencyByTokenID (CyberVault.sol#959) is not in mixedCase  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions  
CyberVault.sol analyzed [18 contracts with 84 detectors], 28 result(s) found
```



## Slither Log >> FrameNFT.sol

```
FrameNFT.constructor(string,address).uri (FrameNFT.sol#1546) shadows:
- FrameNFT.uri(uint256) (FrameNFT.sol#1641-1652) (function)
- ERC1155.uri(uint256) (FrameNFT.sol#1078-1080) (function)
- IERC1155MetadataURI.uri(uint256) (FrameNFT.sol#1039) (function)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

Variable 'ERC1155._doSafeTransferAcceptanceCheck(address,address,address,uint256,uint256,bytes).response (FrameNFT.sol#1398)' in
ERC1155._doSafeTransferAcceptanceCheck(address,address,address,uint256,uint256,bytes) (FrameNFT.sol#1389-1415) potentially used b
efore declaration: response != IERC1155Receiver.onERC1155Received.selector (FrameNFT.sol#1399)
Variable 'ERC1155._doSafeTransferAcceptanceCheck(address,address,address,uint256,uint256,bytes).reason (FrameNFT.sol#1403)' in E
RC1155._doSafeTransferAcceptanceCheck(address,address,address,uint256,uint256,bytes) (FrameNFT.sol#1389-1415) potentially used b
efore declaration: reason.length == 0 (FrameNFT.sol#1404)
Variable 'ERC1155._doSafeTransferAcceptanceCheck(address,address,address,uint256,uint256,bytes).reason (FrameNFT.sol#1403)' in E
RC1155._doSafeTransferAcceptanceCheck(address,address,address,uint256,uint256,bytes) (FrameNFT.sol#1389-1415) potentially used b
efore declaration: revert(uint256,uint256){32 + reason,load(uint256)(reason)} (FrameNFT.sol#1410)
Variable 'ERC1155._doSafeTransferAcceptanceCheck(address,address,address,uint256,uint256,bytes).reason (FrameNFT.sol#1403)' in E
RC1155._doSafeTransferAcceptanceCheck(address,address,address,uint256,uint256,bytes) (FrameNFT.sol#1389-1415) potentially used b
efore declaration: revert(uint256,uint256){32 + reason,load(uint256)(reason)} (FrameNFT.sol#1410)
Variable 'ERC1155._doSafeBatchTransferAcceptanceCheck(address,address,address,uint256[],uint256[],bytes).response (FrameNFT.sol#1431)' in
ERC1155._doSafeBatchTransferAcceptanceCheck(address,address,address,uint256[],uint256[],bytes) (FrameNFT.sol#1421-1449)
potentially used before declaration: response != IERC1155BatchReceiver.selector (FrameNFT.sol#1433)
Variable 'ERC1155._doSafeBatchTransferAcceptanceCheck(address,address,address,uint256[],uint256[],bytes).reason (FrameNFT.sol#1437)' in
ERC1155._doSafeBatchTransferAcceptanceCheck(address,address,address,uint256[],uint256[],bytes) (FrameNFT.sol#1421-1449)
potentially used before declaration: reason.length == 0 (FrameNFT.sol#1438)
Variable 'ERC1155._doSafeBatchTransferAcceptanceCheck(address,address,address,uint256[],uint256[],bytes).reason (FrameNFT.sol#1437)' in
ERC1155._doSafeBatchTransferAcceptanceCheck(address,address,address,uint256[],uint256[],bytes) (FrameNFT.sol#1421-1449)
potentially used before declaration: revert(uint256,uint256){32 + reason,load(uint256)(reason)} (FrameNFT.sol#1444)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#pre-declaration-usage-of-local-variables

Pragma version^0.8.0 (FrameNFT.sol#4) allows old versions
solc-0.8.14 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) (FrameNFT.sol#915-920):
- (success) = recipient.call{value: amount}() (FrameNFT.sol#918)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (FrameNFT.sol#952-974):
- (success,returndata) = target.call{value: value}(data) (FrameNFT.sol#960)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls
FrameNFT.sol analyzed (20 contracts with 84 detectors), 59 result(s) found
```

## Slither Log >> Link3ProfileDescriptor.sol

```
Pragma version0.8.14 (Link3ProfileDescriptor.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Low level call in AddressUpgradeable.sendValue(address,uint256) (Link3ProfileDescriptor.sol#1031-1038):
- (success) = recipient.call{value: amount}() (Link3ProfileDescriptor.sol#1036)
Low level call in AddressUpgradeable.functionCallWithValue(address,bytes,uint256,string) (Link3ProfileDescriptor.sol#1060-1069):
- (success,returndata) = target.call{value: value}(data) (Link3ProfileDescriptor.sol#1067)
Low level call in AddressUpgradeable.functionStaticCall(address,bytes,string) (Link3ProfileDescriptor.sol#1075-1082):
- (success,returndata) = target.staticcall(data) (Link3ProfileDescriptor.sol#1080)
Low level call in ERC1967UpgradeUpgradeable.functionDelegateCall(address,bytes) (Link3ProfileDescriptor.sol#1270-1275):
- (success,returndata) = target.delegatecall(data) (Link3ProfileDescriptor.sol#1273)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Function Owned.__Owned_Init(address) (Link3ProfileDescriptor.sol#81-86) is not in mixedCase
Parameter Owned.__Owned_Init(address).owner (Link3ProfileDescriptor.sol#81) is not in mixedCase
Function ERC1967UpgradeUpgradeable.__ERC1967Upgrade_init() (Link3ProfileDescriptor.sol#1170-1171) is not in mixedCase
Function ERC1967UpgradeUpgradeable.__ERC1967Upgrade_init_unchained() (Link3ProfileDescriptor.sol#1173-1174) is not in mixedCase
Variable ERC1967UpgradeUpgradeable.__gap (Link3ProfileDescriptor.sol#1277) is not in mixedCase
Function UUPSUpgradeable.__UUPSUpgradeable_init() (Link3ProfileDescriptor.sol#1280-1281) is not in mixedCase
Function UUPSUpgradeable.__UUPSUpgradeable_init_unchained() (Link3ProfileDescriptor.sol#1283-1284) is not in mixedCase
Variable UUPSUpgradeable.__self (Link3ProfileDescriptor.sol#1285) is not in mixedCase
Variable UUPSUpgradeable.__gap (Link3ProfileDescriptor.sol#1314) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
Link3ProfileDescriptor.sol analyzed (16 contracts with 84 detectors), 85 result(s) found
```



## Slither Log >> MBNFT.sol

```
MBNFT.initialize(address,address,string,string,string).owner (MBNFT.sol#1629) shadows:
- Owned.owner (MBNFT.sol#1042) (state variable)
MBNFT.initialize(address,address,string,string,string).name (MBNFT.sol#1631) shadows:
- ERC721.name (MBNFT.sol#488) (state variable)
MBNFT.initialize(address,address,string,string,string).symbol (MBNFT.sol#1632) shadows:
- ERC721.symbol (MBNFT.sol#490) (state variable)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

MBNFT.initialize(address,address,string,string,string).boxAddr (MBNFT.sol#1630) lacks a zero-check on :
- boxAddr = boxAddr (MBNFT.sol#1635)
MBNFT.setBoxAddr(address).boxAddr (MBNFT.sol#1699) lacks a zero-check on :
- boxAddr = boxAddr (MBNFT.sol#1700)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

Variable 'ERC1967UpgradeUpgradeable._upgradeToAndCallUUPS(address,bytes,bool).slot (MBNFT.sol#1492)' in ERC1967UpgradeUpgradeabl
e._upgradeToAndCallUUPS(address,bytes,bool) (MBNFT.sol#1484-1490) potentially used before declaration: require(bool,string)(slot
== IMPLEMENTATION_SLOT,ERC1967Upgrade: unsupported proxiableUUID) (MBNFT.sol#1492)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#pre-declaration-usage-of-local-variables

Reentrancy in CyberNFTBaseFlex._mintTo(address,uint256) (MBNFT.sol#923-926):
External calls:
- super._safeMint(to, id) (MBNFT.sol#924)
- require(bool,string)(ERC721TokenReceiver(to).onERC721Received(msg.sender,address(0),id,) == ERC721TokenReceive
r.onERC721Received.selector,UNSAFE_RECIPIENT) (MBNFT.sol#667-671)
State variables written after the call(s):
- ++ _mintCount (MBNFT.sol#925)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-2

Pragma version0.8.14 (MBNFT.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Low level call in AddressUpgradeable.sendValue(address,uint256) (MBNFT.sol#1311-1316):
- (success) = recipient.call{value: amount}() (MBNFT.sol#1314)
Low level call in AddressUpgradeable.functionCallWithValue(address,bytes,uint256,string) (MBNFT.sol#1330-1347):
- (success,returndata) = target.call{value: value}(data) (MBNFT.sol#1345)
Low level call in AddressUpgradeable.functionStaticCall(address,bytes,string) (MBNFT.sol#1353-1360):
- (success,returndata) = target.staticcall(data) (MBNFT.sol#1358)
Low level call in ERC1967UpgradeUpgradeable.functionDelegateCall(address,bytes) (MBNFT.sol#1548-1553):
- (success,returndata) = target.delegatecall(data) (MBNFT.sol#1551)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Variable MBNFTStorage.tokenURI (MBNFT.sol#53) is not in mixedCase
Variable MBNFTStorage.boxAddr (MBNFT.sol#54) is not in mixedCase
Function EIP712.DOMAIN_SEPARATOR() (MBNFT.sol#399-410) is not in mixedCase
Function ERC721.__ERC721_init(string,string) (MBNFT.sol#524-530) is not in mixedCase
Parameter ERC721.__ERC721_init(string,string)._name (MBNFT.sol#524) is not in mixedCase
Parameter ERC721.__ERC721_init(string,string)._symbol (MBNFT.sol#524) is not in mixedCase
Variable ERC721._ownerOf (MBNFT.sol#498) is not in mixedCase
Variable ERC721._balanceOf (MBNFT.sol#500) is not in mixedCase
Variable CyberNFTBase._currentIndex (MBNFT.sol#713) is not in mixedCase
Variable CyberNFTBase._burnCount (MBNFT.sol#714) is not in mixedCase
Variable CyberNFTBaseFlex._mintCount (MBNFT.sol#832) is not in mixedCase
Variable CyberNFTBaseFlex._burnCount (MBNFT.sol#833) is not in mixedCase
Function Owned._Owned_init(address) (MBNFT.sol#1054-1059) is not in mixedCase
Parameter Owned._Owned_init(address)._owner (MBNFT.sol#1054) is not in mixedCase
Function ERC1967UpgradeUpgradeable.__ERC1967Upgrade_init() (MBNFT.sol#1448-1449) is not in mixedCase
Function ERC1967UpgradeUpgradeable.__ERC1967Upgrade_init_unchained() (MBNFT.sol#1451-1452) is not in mixedCase
Variable ERC1967UpgradeUpgradeable.__gap (MBNFT.sol#1555) is not in mixedCase
Function UUPSUpgradeable.__UUPSUpgradeable_init() (MBNFT.sol#1558-1559) is not in mixedCase
Function UUPSUpgradeable.__UUPSUpgradeable_init_unchained() (MBNFT.sol#1561-1562) is not in mixedCase
Variable UUPSUpgradeable.__self (MBNFT.sol#1563) is not in mixedCase
Variable UUPSUpgradeable.__gap (MBNFT.sol#1592) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

CyberNFTBase (MBNFT.sol#709-826) does not implement functions:
- ERC721.tokenURI(uint256) (MBNFT.sol#492)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unimplemented-functions
MBNFT.sol analyzed (23 contracts with 84 detectors), 79 result(s) found
```



## Slither Log >> MiniShardNFT.sol

```
MiniShardNFT.constructor(string,address).uri (MiniShardNFT.sol#1856) shadows:  
- ERC1155.uri(uint256) (MiniShardNFT.sol#1307-1309) (function)  
- IERC1155MetadataURI.uri(uint256) (MiniShardNFT.sol#1285) (function)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing  
  
MiniShardNFT.constructor(string,address).owner (MiniShardNFT.sol#1856) lacks a zero-check on :  
- _signer = owner (MiniShardNFT.sol#1857)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation  
  
Pragma version0.8.14 (MiniShardNFT.sol#3) allows old versions  
solc-0.8.14 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) (MiniShardNFT.sol#1143-1148):  
- (success) = recipient.call{value: amount}() (MiniShardNFT.sol#1146)  
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (MiniShardNFT.sol#1180-1202):  
- (success,returndata) = target.call{value: weiValue}(data) (MiniShardNFT.sol#1188)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls  
  
Function EIP712.DOMAIN_SEPARATOR() (MiniShardNFT.sol#161-172) is not in mixedCase  
Variable MiniShardNFT._signer (MiniShardNFT.sol#1839) is not in mixedCase  
Variable MiniShardNFT._nonces (MiniShardNFT.sol#1840) is not in mixedCase  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions  
  
MiniShardNFT._signer (MiniShardNFT.sol#1839) should be immutable  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable  
MiniShardNFT.sol analyzed (23 contracts with 84 detectors), 67 result(s) found
```

## Slither Log >> RelationshipChecker.sol

```
RelationshipChecker.constructor(address).namespace (RelationshipChecker.sol#820) lacks a zero-check on :  
- _namespace = namespace (RelationshipChecker.sol#821)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation  
  
Pragma version0.8.14 (RelationshipChecker.sol#3) allows old versions  
solc-0.8.14 is not recommended for deployment  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity  
  
Variable RelationshipChecker._namespace (RelationshipChecker.sol#814) is not in mixedCase  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions  
  
RelationshipChecker._namespace (RelationshipChecker.sol#814) should be immutable  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable  
RelationshipChecker.sol analyzed (6 contracts with 84 detectors), 5 result(s) found
```

## Slither Log >> CyberBoxNFTStorage.sol

```
Pragma version0.8.14 (CyberBoxNFTStorage.sol#3) allows old versions  
solc-0.8.14 is not recommended for deployment  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity  
  
Variable CyberBoxNFTStorage._signer (CyberBoxNFTStorage.sol#10) is not in mixedCase  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions  
  
CyberBoxNFTStorage._signer (CyberBoxNFTStorage.sol#10) should be constant  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-constant  
CyberBoxNFTStorage.sol analyzed (1 contracts with 84 detectors), 4 result(s) found
```

## Slither Log >> CyberEngineStorage.sol

```
Pragma version0.8.14 (CyberEngineStorage.sol#3) allows old versions  
solc-0.8.14 is not recommended for deployment  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity  
  
Variable CyberEngineStorage._profileAllowlist (CyberEngineStorage.sol#146) is not in mixedCase  
Variable CyberEngineStorage._essenceAllowlist (CyberEngineStorage.sol#147) is not in mixedCase  
Variable CyberEngineStorage._subscribeAllowlist (CyberEngineStorage.sol#148) is not in mixedCase  
Variable CyberEngineStorage._namespaceByName (CyberEngineStorage.sol#149) is not in mixedCase  
Variable CyberEngineStorage._namespaceInfo (CyberEngineStorage.sol#150) is not in mixedCase  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions  
CyberEngineStorage.sol analyzed (2 contracts with 84 detectors), 7 result(s) found
```



## Slither Log >> CyberGrandNFTStorage.sol

```
Pragma version0.8.14 (CyberGrandNFTStorage.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Variable CyberGrandNFTStorage._signer (CyberGrandNFTStorage.sol#10) is not in mixedCase
Variable CyberGrandNFTStorage._tokenURI (CyberGrandNFTStorage.sol#11) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

CyberGrandNFTStorage._signer (CyberGrandNFTStorage.sol#10) should be constant
CyberGrandNFTStorage._tokenURI (CyberGrandNFTStorage.sol#11) should be constant
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-constant
CyberGrandNFTStorage.sol analyzed (1 contracts with 84 detectors), 6 result(s) found
```

## Slither Log >> EssenceNFTStorage.sol

```
Pragma version0.8.14 (EssenceNFTStorage.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Variable EssenceNFTStorage._profileId (EssenceNFTStorage.sol#10) is not in mixedCase
Variable EssenceNFTStorage._essenceId (EssenceNFTStorage.sol#11) is not in mixedCase
Variable EssenceNFTStorage._transferable (EssenceNFTStorage.sol#12) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

EssenceNFTStorage._essenceId (EssenceNFTStorage.sol#11) should be constant
EssenceNFTStorage._profileId (EssenceNFTStorage.sol#10) should be constant
EssenceNFTStorage._transferable (EssenceNFTStorage.sol#12) should be constant
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-constant
EssenceNFTStorage.sol analyzed (1 contracts with 84 detectors), 8 result(s) found
```

## Slither Log >> Link3ProfileDescriptorStorage.sol

```
Pragma version0.8.14 (Link3ProfileDescriptorStorage.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Link3ProfileDescriptorStorage.animationTemplate (Link3ProfileDescriptorStorage.sol#11) should be constant
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-constant
Link3ProfileDescriptorStorage.sol analyzed (1 contracts with 84 detectors), 3 result(s) found
```

## Slither Log >> MBNFTStorage.sol

```
Pragma version0.8.14 (MBNFTStorage.sol#3) allows old versions
solc-0.8.14 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Variable MBNFTStorage._tokenURI (MBNFTStorage.sol#10) is not in mixedCase
Variable MBNFTStorage._boxAddr (MBNFTStorage.sol#11) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

MBNFTStorage._boxAddr (MBNFTStorage.sol#11) should be constant
MBNFTStorage._tokenURI (MBNFTStorage.sol#10) should be constant
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-constant
MBNFTStorage.sol analyzed (1 contracts with 84 detectors), 6 result(s) found
```



## Slither Log >> ProfileNFTStorage.sol

```
Pragma version0.8.14 (ProfileNFTStorage.sol#3) allows old versions  
solc-0.8.14 is not recommended for deployment  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
```

```
Variable ProfileNFTStorage._nftDescriptor (ProfileNFTStorage.sol#146) is not in mixedCase  
Variable ProfileNFTStorage._namespaceOwner (ProfileNFTStorage.sol#147) is not in mixedCase  
Variable ProfileNFTStorage._profileById (ProfileNFTStorage.sol#148) is not in mixedCase  
Variable ProfileNFTStorage._profileIdByHandleHash (ProfileNFTStorage.sol#149) is not in mixedCase  
Variable ProfileNFTStorage._metadataById (ProfileNFTStorage.sol#150) is not in mixedCase  
Variable ProfileNFTStorage._operatorApproval (ProfileNFTStorage.sol#151) is not in mixedCase  
Variable ProfileNFTStorage._addressToPrimaryProfile (ProfileNFTStorage.sol#152) is not in mixedCase  
Variable ProfileNFTStorage._subscribeByProfileId (ProfileNFTStorage.sol#153-154) is not in mixedCase  
Variable ProfileNFTStorage._essenceByIdByProfileId (ProfileNFTStorage.sol#155-156) is not in mixedCase  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
```

## Slither Log >> SubscribeNFTStorage.sol

```
Pragma version0.8.14 (SubscribeNFTStorage.sol#3) allows old versions  
solc-0.8.14 is not recommended for deployment  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
```

```
Variable SubscribeNFTStorage._profileId (SubscribeNFTStorage.sol#7) is not in mixedCase  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
```

```
SubscribeNFTStorage._profileId (SubscribeNFTStorage.sol#7) should be constant  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-constant  
SubscribeNFTStorage.sol analyzed (1 contracts with 84 detectors), 4 result(s) found
```

## Slither Log >> UpgradeableBeacon.sol

```
Address.isContract(address) (UpgradeableBeacon.sol#17-24) uses assembly  
- INLINE_ASM (UpgradeableBeacon.sol#20-22)  
Address.functionCallWithValue(address,bytes,uint256,string) (UpgradeableBeacon.sol#63-65) uses assembly  
- INLINE_ASM (UpgradeableBeacon.sol#77-80)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage
```

```
Address.functionCallWithValue(address,bytes,uint256,string) (UpgradeableBeacon.sol#63-65) is never used and should be removed  
Address.functionCall(address,bytes) (UpgradeableBeacon.sol#33-35) is never used and should be removed  
Address.functionCall(address,bytes,string) (UpgradeableBeacon.sol#37-42) is never used and should be removed  
Address.functionCallWithValue(address,bytes,uint256) (UpgradeableBeacon.sol#45-51) is never used and should be removed  
Address.functionCallWithValue(address,bytes,uint256,string) (UpgradeableBeacon.sol#53-61) is never used and should be removed  
Address.sendValue(address,uint256) (UpgradeableBeacon.sol#26-31) is never used and should be removed  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code
```

```
Pragma version0.8.0 (UpgradeableBeacon.sol#4) allows old versions  
solc-0.8.14 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) (UpgradeableBeacon.sol#26-31):  
- (success) = recipient.call{value: amount}() (UpgradeableBeacon.sol#29)  
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (UpgradeableBeacon.sol#63-65):  
- (success,returnData) = target.call{value: weiValue}(data) (UpgradeableBeacon.sol#71)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls
```

```
Variable UpgradeableBeacon.OWNER (UpgradeableBeacon.sol#99) is not in mixedCase  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
```

```
Variable UpgradeableBeacon.implementation (UpgradeableBeacon.sol#98) is too similar to UpgradeableBeacon.constructor(address,address).implementation (UpgradeableBeacon.sol#110)  
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#variable-names-too-similar  
UpgradeableBeacon.sol analyzed (3 contracts with 84 detectors), 14 result(s) found
```



## Slither Log >> CYBER.sol

```
ERC20Permit.permit(address,address,uint256,uint256,uint8,bytes32,bytes32) (CyberToken.sol#2507-2526) uses timestamp for comparisons
  Dangerous comparisons:
  - require(bool,string)(block.timestamp <= deadline,ERC20Permit: expired deadline) (CyberToken.sol#2516)
ERC20Votes.delegateBySig(address,uint256,uint256,uint8,bytes32,bytes32) (CyberToken.sol#2675-2692) uses timestamp for comparisons
  Dangerous comparisons:
  - require(bool,string)(block.timestamp <= expiry,ERC20Votes: signature expired) (CyberToken.sol#2683)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Math.mulDiv(uint256,uint256,uint256) (CyberToken.sol#227-207) uses assembly
  - INLINE_ASM (CyberToken.sol#228-242)
  - INLINE_ASM (CyberToken.sol#258-265)
  - INLINE_ASM (CyberToken.sol#272-281)
Strings.toString(uint256) (CyberToken.sol#526-546) uses assembly
  - INLINE_ASM (CyberToken.sol#532-534)
  - INLINE_ASM (CyberToken.sol#538-540)
ECDSA.tryRecover(bytes32,bytes) (CyberToken.sol#1700-1806) uses assembly
  - INLINE_ASM (CyberToken.sol#1797-1801)
ERC20Votes.unsafeAccess(ERC20Votes.Checkpoint[],uint256) (CyberToken.sol#2798-2803) uses assembly
  - INLINE_ASM (CyberToken.sol#2799-2802)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Context._msgData() (CyberToken.sol#2033-2035) is never used and should be removed
Counters.decrement(Counters.Counter) (CyberToken.sol#167-173) is never used and should be removed
Counters.reset(Counters.Counter) (CyberToken.sol#175-177) is never used and should be removed
ECDSA.recover(bytes32,bytes) (CyberToken.sol#1822-1826) is never used and should be removed
ECDSA.recover(bytes32,bytes32,bytes32) (CyberToken.sol#1850-1858) is never used and should be removed

SafeCast.toUint8(uint256) (CyberToken.sol#1156-1159) is never used and should be removed
SafeCast.toUint89(uint256) (CyberToken.sol#1003-1006) is never used and should be removed
SafeCast.toUint88(uint256) (CyberToken.sol#988-989) is never used and should be removed
SafeCast.toUint96(uint256) (CyberToken.sol#969-972) is never used and should be removed
Strings.toHexString(address) (CyberToken.sol#575-577) is never used and should be removed
Strings.toHexString(uint256) (CyberToken.sol#551-555) is never used and should be removed
Strings.toHexString(uint256,uint256) (CyberToken.sol#560-570) is never used and should be removed
Strings.toString(uint256) (CyberToken.sol#526-546) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version^0.8.0 (CyberToken.sol#4) allows old versions
solc-0.8.0 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Function IERC20Permit.DOMAIN_SEPARATOR() (CyberToken.sol#146) is not in mixedCase
Variable EIP712._CACHED_DOMAIN_SEPARATOR (CyberToken.sol#1953) is not in mixedCase
Variable EIP712._CACHED_CHAIN_ID (CyberToken.sol#1954) is not in mixedCase
Variable EIP712._CACHED_THIS (CyberToken.sol#1955) is not in mixedCase
Variable EIP712._HASHED_NAME (CyberToken.sol#1957) is not in mixedCase
Variable EIP712._HASHED_VERSION (CyberToken.sol#1958) is not in mixedCase
Variable EIP712._TYPE_HASH (CyberToken.sol#1959) is not in mixedCase
Function ERC20Permit.DOMAIN_SEPARATOR() (CyberToken.sol#2539-2541) is not in mixedCase
Variable ERC20Permit._PERMIT_TYPEHASH DEPRECATED SLOT (CyberToken.sol#2495) is not in mixedCase
Parameter CyberToken.wint(address,uint256)._account (CyberToken.sol#2829) is not in mixedCase
Parameter CyberToken.wint(address,uint256)._amount (CyberToken.sol#2829) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
CyberToken.sol analyzed (17 contracts with 04 detectors), 120 result(s) found
```





# SOLIDITY STATIC ANALYSIS

Static code analysis is used to identify many common coding problems before a program is released. It involves examining the code manually or using tools to automate the process. Static code analysis tools can automatically scan the code without executing it.

## CyberNFTBaseFlex.sol

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Constant/View/Pure functions:

CyberNFTBaseFlex.\_initialize(string,string) : Potentially should be constant/view/pure but is not. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 108:4:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 220:12:



### Delete from dynamic array:

Using "delete" on an array leaves a gap. The length of the array remains the same. If you want to remove the empty position you need to shift items manually and update the "length" property.

[more](#)

Pos: 192:8:

### No return:

ICyberNFTBase.totalBurned(): Defines a return type but never explicitly returns a value.

Pos: 27:4:

## EIP712.sol

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Constant/View/Pure functions:

EIP712.DOMAIN\_SEPARATOR() : Is constant but potentially should not be.

[more](#)

Pos: 27:4:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 60:8:



## CyberNFTBase.sol

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Constant/View/Pure functions:

CyberNFTBase.\_initialize(string,string) : Potentially should be constant/view/pure but is not. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 108:4:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 220:12:

### Delete from dynamic array:

Using "delete" on an array leaves a gap. The length of the array remains the same. If you want to remove the empty position you need to shift items manually and update the "length" property.

[more](#)

Pos: 192:8:



## CyberEngine.sol

### Inline assembly:

The Contract uses inline assembly, this is only advised in rare cases. Additionally static analysis modules do not parse inline Assembly, this can lead to wrong analysis results.

[more](#)

Pos: 186:16:

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Low level calls:

Use of "delegatecall": should be avoided whenever possible. External code, that is called can change the state of the calling contract and send ether from the caller's balance. If this is wanted behaviour, use the Solidity library feature if possible.

[more](#)

Pos: 173:50:

### For loop over dynamic array:

Loops that do not have a fixed number of iterations, for example, loops that depend on storage values, have to be used carefully. Due to the block gas limit, transactions can only consume a certain amount of gas. The number of iterations in a loop can grow beyond the block gas limit which can cause the complete contract to be stalled at a certain point. Additionally, using unbounded loops incurs in a lot of avoidable gas costs. Carefully test how many items at maximum you can pass to such functions to make it successful.

[more](#)

Pos: 700:8:



### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 255:8:

## EssenceNFT.sol

### Check-effects-interaction:

Potential violation of Checks-Effects-Interaction pattern in EssenceNFT(): Could potentially lead to re-entrancy vulnerability. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 34:4:

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 62:8:



### Delete from dynamic array:

Using "delete" on an array leaves a gap. The length of the array remains the same. If you want to remove the empty position you need to shift items manually and update the "length" property.

[more](#)

Pos: 192:8:

## ProfileNFT.sol

### Inline assembly:

The Contract uses inline assembly, this is only advised in rare cases. Additionally static analysis modules do not parse inline Assembly, this can lead to wrong analysis results.

[more](#)

Pos: 157:8:

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### For loop over dynamic array:

Loops that do not have a fixed number of iterations, for example, loops that depend on storage values, have to be used carefully. Due to the block gas limit, transactions can only consume a certain amount of gas. The number of iterations in a loop can grow beyond the block gas limit which can cause the complete contract to be stalled at a certain point. Additionally, using unbounded loops incurs in a lot of avoidable gas costs. Carefully test how many items at maximum you can pass to such functions to make it successful.

[more](#)

Pos: 700:8:



### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 57:8:

### Delete from dynamic array:

Using "delete" on an array leaves a gap. The length of the array remains the same. If you want to remove the empty position you need to shift items manually and update the "length" property.

[more](#)

Pos: 192:8:

## SubscribeNFT.sol

### Check-effects-interaction:

Potential violation of Checks-Effects-Interaction pattern in SubscribeNFT.(): Could potentially lead to re-entrancy vulnerability. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 37:4:

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:



### Constant/View/Pure functions:

SubscribeNFT.mint(address) : Potentially should be constant/view/pure but is not. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 60:4:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 61:8:

### Delete from dynamic array:

Using "delete" on an array leaves a gap. The length of the array remains the same. If you want to remove the empty position you need to shift items manually and update the "length" property.

[more](#)

Pos: 190:8:





## Auth.sol

### Check-effects-interaction:

Potential violation of Checks-Effects-Interaction pattern in `Auth.setAuthority(contract Authority)`: Could potentially lead to re-entrancy vulnerability. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 43:4:

### No return:

`Authority.canCall(address,address,bytes4)`: Defines a return type but never explicitly returns a value.

Pos: 64:4:

### Guard conditions:

Use `"assert(x)"` if you never ever want `x` to be false, not in any circumstance (apart from a bug in your code). Use `"require(x)"` if `x` can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 46:8:

## ERC721.sol

### Constant/View/Pure functions:

`ERC721TokenReceiver.onERC721Received(address,address,uint256,bytes)` : Potentially should be constant/view/pure but is not. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 231:4:

### Similar variable names:

`ERC721.transferFrom(address,address,uint256)` : Variables have very similar names "to" and "id". Note: Modifiers are currently not considered by this static analysis.

Pos: 95:33:



### No return:

ERC721.tokenURI(uint256): Defines a return type but never explicitly returns a value.

Pos: 30:4:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 41:8:

## Owned.sol

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 47:8:



## RolesAuthority.sol

### Check-effects-interaction:

Potential violation of Checks-Effects-Interaction pattern in `Auth.setAuthority(contract Authority)`: Could potentially lead to re-entrancy vulnerability. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 43:4:

### Gas costs:

Gas requirement of function `RolesAuthority.setUserRole` is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 101:4:

### No return:

`Authority.canCall(address,address,bytes4)`: Defines a return type but never explicitly returns a value.

Pos: 64:4:

### Guard conditions:

Use `"assert(x)"` if you never ever want `x` to be false, not in any circumstance (apart from a bug in your code). Use `"require(x)"` if `x` can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 30:8:



## Create2Deployer.sol

### Inline assembly:

The Contract uses inline assembly, this is only advised in rare cases. Additionally static analysis modules do not parse inline Assembly, this can lead to wrong analysis results.

[more](#)

Pos: 10:8:

### Gas costs:

Gas requirement of function `Create2Deployer.deploy` is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage).

Pos: 7:4:

### Check-effects-interaction:

Potential violation of Checks-Effects-Interaction pattern in `EssenceNFT.()`: Could potentially lead to re-entrancy vulnerability. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 34:4:

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 62:8:

### Delete from dynamic array:

Using "delete" on an array leaves a gap. The length of the array remains the same. If you want to remove the empty position you need to shift items manually and update the "length" property.

[more](#)

Pos: 114:8:



## ProfileDeployer.sol

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### For loop over dynamic array:

Loops that do not have a fixed number of iterations, for example, loops that depend on storage values, have to be used carefully. Due to the block gas limit, transactions can only consume a certain amount of gas. The number of iterations in a loop can grow beyond the block gas limit which can cause the complete contract to be stalled at a certain point. Additionally, using unbounded loops incurs in a lot of avoidable gas costs. Carefully test how many items at maximum you can pass to such functions to make it successful.

[more](#)

Pos: 105:8:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 57:8:

### Delete from dynamic array:

Using "delete" on an array leaves a gap. The length of the array remains the same. If you want to remove the empty position you need to shift items manually and update the "length" property.

[more](#)

Pos: 114:8:



## SubscribeDeployer.sol

### Check-effects-interaction:

Potential violation of Checks-Effects-Interaction pattern in `SubscribeNFT.()`: Could potentially lead to re-entrancy vulnerability. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 37:4:

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Delete from dynamic array:

Using "delete" on an array leaves a gap. The length of the array remains the same. If you want to remove the empty position you need to shift items manually and update the "length" property.

[more](#)

Pos: 192:8:

## FeeMw.sol

### No return:

`ITreasury.isCurrencyAllowed(address)`: Defines a return type but never explicitly returns a value.

Pos: 27:4:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 18:8:



## PermissionedMw.sol

### Check-effects-interaction:

Potential violation of Checks-Effects-Interaction pattern in `Auth.setAuthority(contract Authority)`: Could potentially lead to re-entrancy vulnerability. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 43:4:

## Treasury.sol

### No return:

`ITreasury.isCurrencyAllowed(address)`: Defines a return type but never explicitly returns a value.

Pos: 27:4:

### Guard conditions:

Use `"assert(x)"` if you never ever want `x` to be false, not in any circumstance (apart from a bug in your code). Use `"require(x)"` if `x` can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 26:8:

## CollectDisallowedMw.sol

### Gas costs:

Gas requirement of function `CollectDisallowedMw.postProcess` is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 42:4:



## CollectFlexPaidMw.sol

### Transaction origin:

Use of tx.origin: "tx.origin" is useful only in very exceptional cases. If you use it for authentication, you usually want to replace it by "msg.sender", because otherwise any contract you call can act on your behalf.

[more](#)

Pos: 108:16:

### Gas costs:

Gas requirement of function CollectFlexPaidMw.setEssenceMwData is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 77:4:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 18:8:

### Data truncated:

Division of integer values yields an integer value again. That means e.g.  $10 / 100 = 0$  instead of 0.1 since the result is an integer again. This does not hold for division of (only) literal values since those yield rational constants.

Pos: 111:36:





## CollectLimitedTimePaidMw.sol

### Transaction origin:

Use of `tx.origin`: "`tx.origin`" is useful only in very exceptional cases. If you use it for authentication, you usually want to replace it by "`msg.sender`", because otherwise any contract you call can act on your behalf.

[more](#)

Pos: 162:16:

### Block timestamp:

Use of "`block.timestamp`": "`block.timestamp`" can be influenced by miners to a certain degree. That means that a miner can "choose" the `block.timestamp`, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 170:12:

### Guard conditions:

Use "`assert(x)`" if you never ever want `x` to be false, not in any circumstance (apart from a bug in your code). Use "`require(x)`" if `x` can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 18:8:

### Gas costs:

Gas requirement of function `CollectMerkleDropMw.postProcess` is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 82:4:

### Constant/View/Pure functions:

`CollectMerkleDropMw.preProcess(uint256,uint256,address,address,bytes)` : Is constant but potentially should not be.

[more](#)

Pos: 64:4:



### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 71:8:

## CollectOnlySubscribedMw.sol

### Gas costs:

Gas requirement of function `CollectOnlySubscribedMw.postProcess` is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 48:4:

### Constant/View/Pure functions:

`CollectOnlySubscribedMw.setEssenceMwData(uint256,uint256,bytes)` : Is constant but potentially should not be. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 21:4:

### Delete from dynamic array:

Using "delete" on an array leaves a gap. The length of the array remains the same. If you want to remove the empty position you need to shift items manually and update the "length" property.

[more](#)

Pos: 192:8:



## CollectPaidMw.sol

### Transaction origin:

Use of tx.origin: "tx.origin" is useful only in very exceptional cases. If you use it for authentication, you usually want to replace it by "msg.sender", because otherwise any contract you call can act on your behalf.

[more](#)

Pos: 140:16:

### Check-effects-interaction:

Potential violation of Checks-Effects-Interaction pattern in Auth.setAuthority(contract Authority): Could potentially lead to re-entrancy vulnerability. Note: Modifiers are currently not considered by this static analysis. Note: Import aliases are currently not supported by this static analysis.

[more](#)

Pos: 43:4:

### Delete from dynamic array:

Using "delete" on an array leaves a gap. The length of the array remains the same. If you want to remove the empty position you need to shift items manually and update the "length" property.

[more](#)

Pos: 192:8:

### Data truncated:

Division of integer values yields an integer value again. That means e.g.  $10 / 100 = 0$  instead of 0.1 since the result is an integer again. This does not hold for division of (only) literal values since those yield rational constants.

Pos: 144:36:



## CollectPermissionMw.sol

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 220:12:

### Delete from dynamic array:

Using "delete" on an array leaves a gap. The length of the array remains the same. If you want to remove the empty position you need to shift items manually and update the "length" property.

[more](#)

Pos: 114:8:

## CollectPermissionPaidMw.sol

### Transaction origin:

Use of tx.origin: "tx.origin" is useful only in very exceptional cases. If you use it for authentication, you usually want to replace it by "msg.sender", because otherwise any contract you call can act on your behalf.

[more](#)

Pos: 141:16:



### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 53:8:

## FeeCreationMw.sol

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Gas costs:

Gas requirement of function CollectPermissionMw.preProcess is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 77:4:



### Delete from dynamic array:

Using "delete" on an array leaves a gap. The length of the array remains the same. If you want to remove the empty position you need to shift items manually and update the "length" property.

[more](#)

Pos: 190:8:

## PermissionedFeeCreationMw.sol

### Check-effects-interaction:

Potential violation of Checks-Effects-Interaction pattern in `Auth.setAuthority(contract Authority)`: Could potentially lead to re-entrancy vulnerability. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 43:4:

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Gas costs:

Gas requirement of function `RolesAuthority.setUserRole` is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 101:4:



### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 30:8:

## StableFeeCreationMw.sol

### Check-effects-interaction:

Potential violation of Checks-Effects-Interaction pattern in Auth.setAuthority(contract Authority): Could potentially lead to re-entrancy vulnerability. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 43:4:

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 118:8:



## SubscribeDisallowedMw.sol

### Gas costs:

Gas requirement of function `SubscribeDisallowedMw.preProcess` is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 32:4:

### Constant/View/Pure functions:

`SubscribeDisallowedMw.postProcess(uint256,address,address,bytes)` : Potentially should be constant/view/pure but is not.

[more](#)

Pos: 42:4:

## SubscribeOnlyOnceMw.sol

### Gas costs:

Gas requirement of function `SubscribeOnlyOnceMw.postProcess` is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 47:4:

### Constant/View/Pure functions:

`ERC721TokenReceiver.onERC721Received(address,address,uint256,bytes)` : Potentially should be constant/view/pure but is not. Note: Modifiers are currently not considered by this static analysis.

[more](#)

Pos: 231:4:





### Delete from dynamic array:

Using "delete" on an array leaves a gap. The length of the array remains the same. If you want to remove the empty position you need to shift items manually and update the "length" property.

[more](#)

Pos: 190:8:

## SubscribePaidMw.sol

### Check-effects-interaction:

Potential violation of Checks-Effects-Interaction pattern in Auth.setAuthority(contract Authority): Could potentially lead to re-entrancy vulnerability. Note: Modifiers are currently not considered by this static analysis. Note: Import aliases are currently not supported by this static analysis.

[more](#)

Pos: 43:4:

### Gas costs:

Gas requirement of function RolesAuthority.setOwner is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 53:4:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 46:8:



### Gas costs:

Gas requirement of function `CyberBoxNFT.initialize` is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 51:4:

### Guard conditions:

Use `"assert(x)"` if you never ever want `x` to be false, not in any circumstance (apart from a bug in your code). Use `"require(x)"` if `x` can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 26:8:

## CyberGrandNFT.sol

### Block timestamp:

Use of `"block.timestamp"`: `"block.timestamp"` can be influenced by miners to a certain degree. That means that a miner can "choose" the `block.timestamp`, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Gas costs:

Gas requirement of function `CyberGrandNFT.initialize` is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 50:4:



### Gas costs:

Gas requirement of function MiniShardNFT.mint is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 72:4:

## RelationshipChecker.sol

### Gas costs:

Gas requirement of function RelationshipChecker.isSubscribedByMe is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 53:4:

### No return:

IProfileNFT.getEssenceNFT(uint256,uint256): Defines a return type but never explicitly returns a value.

Pos: 422:4:

## Link3ProfileDescriptorStorage.sol

### Gas costs:

Gas requirement of function Link3ProfileDescriptorStorage.animationTemplate is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 11:4:



### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 45:8:

## CyberVault.sol

### Check-effects-interaction:

Potential violation of Checks-Effects-Interaction pattern in CyberVault.claim1155(string,address,address,uint256,uint256,struct DataTypes.EIP712Signature): Could potentially lead to re-entrancy vulnerability. Note: Modifiers are currently not considered by this static analysis.Note: Import aliases are currently not supported by this static analysis.

[more](#)

Pos: 195:4:

### Gas costs:

Gas requirement of function CyberVault.claim is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 102:4:

### Gas costs:

Gas requirement of function CyberVault.claim is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 102:4:



## FrameNFT.sol

### Inline assembly:

The Contract uses inline assembly, this is only advised in rare cases. Additionally static analysis modules do not parse inline Assembly, this can lead to wrong analysis results.

[more](#)

Pos: 157:8:

### No return:

LibString.toHexString(address): Defines a return type but never explicitly returns a value.

Pos: 152:4:

## Link3ProfileDescriptor.sol

### Inline assembly:

The Contract uses inline assembly, this is only advised in rare cases. Additionally static analysis modules do not parse inline Assembly, this can lead to wrong analysis results.

[more](#)

Pos: 54:8:

### Gas costs:

Gas requirement of function Link3ProfileDescriptor.animationTemplate is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 11:4:



## Link3ProfileDescriptorV2.sol

### Inline assembly:

The Contract uses inline assembly, this is only advised in rare cases. Additionally static analysis modules do not parse inline Assembly, this can lead to wrong analysis results.

[more](#)

Pos: 11:8:

### For loop over dynamic array:

Loops that do not have a fixed number of iterations, for example, loops that depend on storage values, have to be used carefully. Due to the block gas limit, transactions can only consume a certain amount of gas. The number of iterations in a loop can grow beyond the block gas limit which can cause the complete contract to be stalled at a certain point. Additionally, using unbounded loops incurs in a lot of avoidable gas costs. Carefully test how many items at maximum you can pass to such functions to make it successful.

[more](#)

Pos: 203:8:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 47:8:

## MBNFT.sol

### Inline assembly:

The Contract uses inline assembly, this is only advised in rare cases. Additionally static analysis modules do not parse inline Assembly, this can lead to wrong analysis results.

[more](#)

Pos: 11:8:



### For loop over dynamic array:

Loops that do not have a fixed number of iterations, for example, loops that depend on storage values, have to be used carefully. Due to the block gas limit, transactions can only consume a certain amount of gas. The number of iterations in a loop can grow beyond the block gas limit which can cause the complete contract to be stalled at a certain point. Additionally, using unbounded loops incurs in a lot of avoidable gas costs. Carefully test how many items at maximum you can pass to such functions to make it successful.

[more](#)

Pos: 203:8:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 47:8:

## MiniShardNFT.sol

### Inline assembly:

The Contract uses inline assembly, this is only advised in rare cases. Additionally static analysis modules do not parse inline Assembly, this can lead to wrong analysis results.

[more](#)

Pos: 157:8:

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:



## CyberBoxNFT.sol

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 95:8:

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:

### Gas costs:

Gas requirement of function CyberBoxNFT.initialize is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 51:4:

## CyberBoxNFT.sol

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 52:28:





## UpgradeableBeacon.sol

### Low level calls:

Use of "call": should be avoided whenever possible. It can lead to unexpected behavior if return value is not handled properly. Please use Direct Calls via specifying the called contract's interface.

[more](#)

Pos: 125:50:

### Check-effects-interaction:

Potential violation of Checks-Effects-Interaction pattern in Address.functionCallWithValue(address,bytes,uint256,string): Could potentially lead to re-entrancy vulnerability.

[more](#)

Pos: 120:4:

### Inline assembly:

The Contract uses inline assembly, this is only advised in rare cases. Additionally static analysis modules do not parse inline Assembly, this can lead to wrong analysis results.

[more](#)

Pos: 39:8:

### Guard conditions:

Use "assert(x)" if you never ever want x to be false, not in any circumstance (apart from a bug in your code). Use "require(x)" if x can be false, due to e.g. invalid input or a failing external component.

[more](#)

Pos: 242:8:



## CYBER.sol

### Block timestamp:

Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree. That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

[more](#)

Pos: 2522:23:

### Gas costs:

Gas requirement of function CyberToken.permit is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 2513:11:

### Inline assembly:

The Contract uses inline assembly, this is only advised in rare cases. Additionally static analysis modules do not parse inline Assembly, this can lead to wrong analysis results.

[more](#)

Pos: 2805:15:

### Gas costs:

Gas requirement of function CyberToken.mint is infinite: If the gas requirement of a function is higher than the block gas limit, it cannot be executed. Please avoid loops in your functions or actions that modify large areas of storage (this includes clearing or copying arrays in storage)

Pos: 2835:11:

### Data truncated:

Division of integer values yields an integer value again. That means e.g.  $10 / 100 = 0$  instead of 0.1 since the result is an integer again. This does not hold for division of (only) literal values since those yield rational constants.

Pos: 359:35:



# COMPLIANCE ANALYSIS

Linters are the utility tools that analyze the given source code and report programming errors, bugs, and stylistic errors. For the Solidity language, there are some linter tools available that a developer can use to improve the quality of their Solidity contracts

## CyberNFTBaseFlex.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:31

## EIP712.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Avoid making time-based decisions in your business logic  
Pos: 29:51

## CyberNFTBase.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:31

## CyberEngine.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:71  
Variable "newImpl" is unused  
Pos: 32:224  
Code contains empty blocks  
Pos: 70:320



## EssenceNFT.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:33

## ProfileNFT.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2

## SubscribeNFT.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:36

## Auth.sol

Compiler version >=0.8.0 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
global import of path @openzeppelin/contracts/proxy/utils/initializable.sol is not allowed, Specify names to import individually or bind all exports of the module into a name (import "path" as Name)  
Pos: 1:4  
Function name must be in mixedCase  
Pos: 5:20

## ERC721.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Function name must be in mixedCase  
Pos: 5:61



## Owned.sol

Compiler version  $\leq 0.8.14$  does not satisfy the  $\wedge 0.5.8$  semver requirement  
Pos: 1:2  
Function name must be in mixedCase  
Pos: 5:34

## RolesAuthority.sol

Compiler version 0.8.14 does not satisfy the  $\wedge 0.5.8$  semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity  $\geq 0.7.0$ )  
Pos: 5:27

## Create2Deployer.sol

Compiler version 0.8.14 does not satisfy the  $\wedge 0.5.8$  semver requirement  
Pos: 1:1  
Avoid using inline assembly. It is acceptable only in rare cases  
Pos: 9:9

## EssenceDeployer.sol

Compiler version 0.8.14 does not satisfy the  $\wedge 0.5.8$  semver requirement  
Pos: 1:2

## ProfileDeployer.sol

Compiler version 0.8.14 does not satisfy the  $\wedge 0.5.8$  semver requirement  
Pos: 1:2

## SubscribeDeployer.sol

Compiler version 0.8.14 does not satisfy the  $\wedge 0.5.8$  semver requirement  
Pos: 1:2



## FeeMw.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:16

## PermissionedMw.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:26

## Treasury.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:28

## CollectDisallowedMw.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Code contains empty blocks  
Pos: 16:47

## CollectFlexPaidMw.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:67  
Avoid to use tx.origin  
Pos: 17:107  
Variable "treasuryCollected" is unused  
Pos: 9:110  
Code contains empty blocks  
Pos: 16:132



## CollectLimitedTimePaidMw.sol

```
Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)
Pos: 5:77
Avoid to use tx.origin
Pos: 17:161
Avoid making time-based decisions in your business logic
Pos: 13:169
Avoid making time-based decisions in your business logic
Pos: 13:174
Variable "currency" is unused
Pos: 13:192
Variable "actualPaid" is unused
Pos: 13:195
Code contains empty blocks
Pos: 16:208
```

## CollectMerkleDropMw.sol

```
Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Explicitly mark visibility of state
Pos: 5:29
Code contains empty blocks
Pos: 16:87
```

## CollectOnlySubscribedMw.sol

```
Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Code contains empty blocks
Pos: 16:53
```

## CollectPaidMw.sol

```
Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)
Pos: 5:71
Avoid to use tx.origin
Pos: 17:139
Variable "currency" is unused
Pos: 9:141
Variable "actualPaid" is unused
Pos: 9:145
Code contains empty blocks
Pos: 16:164
```



## CollectPermissionMw.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Code contains empty blocks  
Pos: 16:120

## CollectPermissionPaidMw.sol

Compiler version 0.8.20 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:75  
Avoid to use tx.origin  
Pos: 17:140  
Variable "currency" is unused  
Pos: 13:174  
Variable "actualPaid" is unused  
Pos: 13:177  
Code contains empty blocks  
Pos: 16:191

## FeeCreationMw.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:63  
Code contains empty blocks  
Pos: 56:63  
Variable "data" is unused  
Pos: 9:72  
Code contains empty blocks  
Pos: 25:86

## PermissionedFeeCreationMw.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:72  
Code contains empty blocks  
Pos: 5:75  
Code contains empty blocks  
Pos: 25:111





## StableFeeCreationMw.sol

```
Compiler version 0.8.20 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)
Pos: 5:85
Code contains empty blocks
Pos: 76:85
Code contains empty blocks
Pos: 25:132
Avoid making time-based decisions in your business logic
Pos: 24:328
Code contains empty blocks
Pos: 73:351
Code contains empty blocks
Pos: 78:357
Code contains empty blocks
Pos: 73:362
```

## SubscribeDisallowedMw.sol

```
Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Code contains empty blocks
Pos: 25:46
```

## SubscribeOnlyOnceMw.sol

```
Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Code contains empty blocks
Pos: 25:51
```

## SubscribePaidMw.sol

```
Compiler version 0.8.20 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)
Pos: 5:65
Variable "currency" is unused
Pos: 9:124
Variable "actualPaid" is unused
Pos: 9:128
Code contains empty blocks
Pos: 16:147
```



## CyberBoxNFT.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:35  
Code contains empty blocks  
Pos: 69:191

## CyberGrandNFT.sol

Compiler version 0.8.20 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:35  
Code contains empty blocks  
Pos: 69:202

## CyberVault.sol

Compiler version 0.8.20 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2  
Explicitly mark visibility of state  
Pos: 5:74  
Explicitly mark visibility of state  
Pos: 5:75  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:81

## FrameNFT.sol

Compiler version ^0.8.20 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:3  
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)  
Pos: 5:37  
Code contains empty blocks  
Pos: 20:37  
Code contains empty blocks  
Pos: 22:55  
Code contains empty blocks  
Pos: 22:66  
Code contains empty blocks  
Pos: 37:79  
Code contains empty blocks  
Pos: 39:92



## Link3ProfileDescriptor.sol

```
Compiler version 0.8.20 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Use double quotes for string literals
Pos: 29:95
Use double quotes for string literals
Pos: 17:133
Use double quotes for string literals
Pos: 17:135
Use double quotes for string literals
Pos: 17:137
```

## Link3ProfileDescriptorV2.sol

```
Compiler version 0.8.20 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Use double quotes for string literals
Pos: 29:78
Use double quotes for string literals
Pos: 29:84
Use double quotes for string literals
Pos: 17:110
Use double quotes for string literals
Pos: 17:112
Use double quotes for string literals
Pos: 17:114
Use double quotes for string literals
Pos: 17:116
```

## Link3ProfileDescriptorV3.sol

```
Compiler version 0.8.20 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Use double quotes for string literals
Pos: 29:78
Use double quotes for string literals
Pos: 29:80
Use double quotes for string literals
Pos: 29:82
Use double quotes for string literals
Pos: 29:84
Use double quotes for string literals
Pos: 17:110
Use double quotes for string literals
Pos: 17:112
Use double quotes for string literals
Pos: 17:114
Use double quotes for string literals
Pos: 17:116
```



## MBNFT.sol

```
Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)
Pos: 5:37
Code contains empty blocks
Pos: 69:189
```

## MiniShardNFT.sol

```
Compiler version ^0.8.20 does not satisfy the ^0.5.8 semver requirement
Pos: 1:3
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)
Pos: 5:55
Error message for require is too long
Pos: 9:77
Error message for require is too long
Pos: 9:121
Error message for require is too long
Pos: 9:166
Error message for require is too long
Pos: 9:183
```

## RelationshipChecker.sol

```
Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)
Pos: 5:15
```

## CyberBoxNFTStorage.sol

```
Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
```

## CyberEngineStorage.sol

```
Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
```



## CyberGrandNFTStorage.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2

## EssenceNFTStorage.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2

## Link3ProfileDescriptorStorage.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2

## MBNFTStorage.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2

## ProfileNFTStorage.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2

## SubscribeNFTStorage.sol

Compiler version 0.8.14 does not satisfy the ^0.5.8 semver requirement  
Pos: 1:2



## UpgradeableBeacon.sol

```
Compiler version ^0.8.14 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Error message for require is too long
Pos: 9:63
Error message for require is too long
Pos: 9:120
Error message for require is too long
Pos: 9:145
Error message for require is too long
Pos: 9:169
Variable name must be in mixedCase
Pos: 5:206
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)
Pos: 5:217
Error message for require is too long
Pos: 9:254
```

## CYBER.sol

```
Compiler version 0.8.20 does not satisfy the ^0.5.8 semver requirement
Pos: 1:2
Variable name must be in mixedCase
Pos: 5:10
Explicitly mark visibility in function (Set ignoreConstructors to true if using solidity >=0.7.0)
Pos: 5:12
```

# SOFTWARE ANALYSIS RESULT

These software reported many false positive results and some are informational issues. So, those issues can be safely ignored.



**INSPECTOR  
LOVELY**



# INSPECTOR LOVELY

## INFO

Website: [Inspector.lovely.finance](https://Inspector.lovely.finance)

Telegram community: [t.me/inspectorlovely](https://t.me/inspectorlovely)

Twitter: [twitter.com/InspectorLovely](https://twitter.com/InspectorLovely)



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