



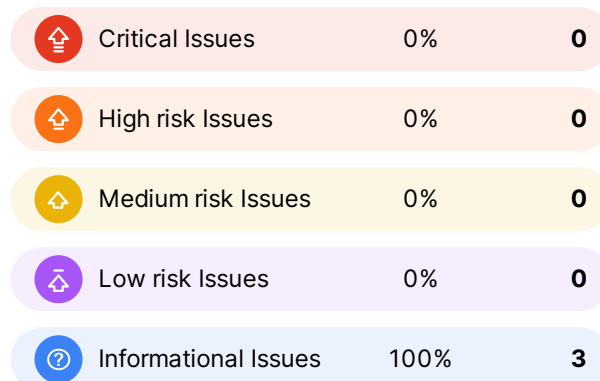
METATRUST

# Security Assessment for **Imart & shareverse**

August 22, 2023

## Executive Summary

Overview			
Project Name	Imart&shareverse		
Codebase URL	https://github.com/mix-labs/imart_contracts/tree/master/evm		
Scan Engine	Security Analyzer		
Scan Time	2023/08/22 15:47:57		
Commit Id	205d7d44ba409014d35703494b060b87cb81eb13		
Total		Critical Issues	The issue can cause large economic losses, large-scale data disorder, loss of control of authority management, failure of key functions, or indirectly affect the correct operation of other smart contracts interacting with it.
		High Risk Issues	The issue puts a large number of users' sensitive information at risk or is reasonably likely to lead to catastrophic impacts on clients' reputations or serious financial implications for clients and users.
		Medium Risk Issues	The issue puts a subset of users' sensitive information at risk, would be detrimental to the client's reputation if exploited, or is reasonably likely to lead to moderate financial impact.
		Low Risk Issues	The risk is relatively small and could not be exploited on a recurring basis, or is a risk that the client has indicated is low-impact in view of the client's business circumstances.
		Informational Issue	The issue does not pose an immediate risk but is relevant to security best practices or Defence in Depth.
Critical Issues	0		
High risk Issues	0		
Medium risk Issues	0		
Low risk Issues	0		
Informational Issues	3		



## Summary of Findings

MetaScan security assessment was performed on **August 22, 2023 15:47:57** on project **Imart&shareverse** with the repository **MIXVERSE** on branch -. The assessment was carried out by scanning the project's codebase using the scan engine **Security Analyzer**. There are in total **3** vulnerabilities / security risks discovered during the scanning session, among which **0** critical vulnerabilities, **0** high risk vulnerabilities, **0** medium risk vulnerabilities, **0** low risk vulnerabilities, **3** informational issues.

ID	Description	Severity	Alleviation
MSA-001	MWE-110: Missing Event Setter	Informational	Fixed
MSA-002	Boolean Compare Is Not Necessary	Informational	Acknowledged
MSA-003	Missing Zero Address Check	Informational	Fixed

## Findings

### Critical (0)

No Critical vulnerabilities found here

### High risk (0)

No High risk vulnerabilities found here

### Medium risk (0)


No Medium risk vulnerabilities found here


### Low risk (0)

No Low risk vulnerabilities found here

### Informational (3)

#### 1. MWE-110: Missing Event Setter

 Informational

 Security Analyzer

Setter-functions must emit events

##### File(s) Affected

contracts/CommissionPool.sol #34-40

```
34     function setGalleryCommission(  
35         uint256 galleryId,  
36         address[] memory payees,  
37         uint256[] memory commissionRates  
38     ) external onlyOwner {  
39         commissions[galleryId] = Commission(payees, commissionRates);  
40     }
```

contracts/CommissionPool.sol #28-32

```
28     function initialize() public initializer {  
29         __ReentrancyGuard_init();  
30         __Ownable2Step_init();  
31     }  
32 }
```

contracts/token/MultipleToken.sol #37-48

```
37     function safeMint(  
38         address to,  
39         uint256 _amount,  
40         string memory _uri  
41     ) external {  
42         _tokenIds.increment();  
43         uint256 id = _tokenIds.current();  
44         idToCreator[id] = to;  
45         idToUri[id] = _uri;  
46         _mint(to, id, _amount, "");  
47         _setApprovalForAll(to, marketplace, true);  
48     }
```

contracts/token/MultipleToken.sol #50-52

```
50     function setMarketplace(address _marketplace) external onlyOwner {  
51         marketplace = _marketplace;  
52     }
```

contracts/collective/Collective.sol #122-124

```
122     function setMarketplace(address _marketplace) external onlyOwner {  
123         marketplace = _marketplace;  
124     }
```



**Recommendation**

Emit events in setter functions

**Alleviation** Fixed

-

## 2. Boolean Compare Is Not Necessary

 Informational Security Analyzer

Boolean constants can be used directly and do not need to compare to true or false.

**File(s) Affected**

contracts/NftLottery.sol #93-93

```
93         require (_checkActivityExist(msg.sender, _activityId) == false, " activity already exist ");
```

contracts/NftLottery.sol #157-157

```
157         require(_checkActivityExist(msg.sender, _activityId) == true, " activity does not exist ");
```

contracts/NftLottery.sol #197-197

```
197         require(hasClaimed[userBytesKey] == false, " your prize already claimed ");
```

contracts/NftLottery.sol #254-254

```
254         require(_checkActivityExist(_organizer, _activityId) == true, " activity does not exist ");
```

contracts/NftLottery.sol #268-268

```
268         require(_checkActivityExist(msg.sender, _activityId) == true, " activity does not exist ");
```

contracts/NftLottery.sol #299-299

```
299         require(_checkActivityExist(_organizer, _activityId) == true, " activity does not exist ");
```



**Recommendation**

Just use boolean constants directly.

**Alleviation** Acknowledged

-

### 3. Missing Zero Address Check

 Informational Security Analyzer

This Function is lack of zero address check in important operation, which may cause some unexpected result.

**File(s) Affected**

contracts/CommissionPool.sol #72-72

```
72     function claim(uint256 galleryId, address recipient, uint256 amount) public nonReentrant {
```

contracts/collective/Collective.sol #82-82

```
82     function mintTo(
```

contracts/collective/Collective.sol #122-122

```
122     function setMarketplace(address _marketplace) external onlyOwner {
```

contracts/token/MultipleToken.sol #50-50

```
50     function setMarketplace(address _marketplace) external onlyOwner {
```

contracts/NftLottery.sol #182-182

```
182     function claim(address _organizer,uint256 _activityId,address _nftContract,uint256 _tokenId,bytes32
```

contracts/NftLottery.sol #293-293

```
293     function emergencyWithdraw(address _organizer , uint256 _activityId,address _nftContractAddress) ex
```

contracts/token/SingleToken.sol #48-48

```
48     function setMarketplace(address _marketplace) external onlyOwner {
```

**Recommendation**

Add check of zero address in important operation.

**Alleviation** Fixed

-

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