



METATRUST

Draft
Security Assessment for
**Hack-20220606-
Discover (10K-FLP)**

July 23, 2023






Executive Summary

Overview			
Project Name	Hack-20220606-Discover (10K-FLP)		
Codebase URL	-		
Scan Engine	AI Analyzer		
Scan Time	2023/07/23 15:20:51		
Commit Id	-		

Total			
Critical Issues	0		
High risk Issues	1		
Medium risk Issues	0		
Low risk Issues	0		
Informational Issues	0		

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%	0
	High risk Issues	100%	1
	Medium risk Issues	0%	0
	Low risk Issues	0%	0
	Informational Issues	0%	0

Summary of Findings

MetaScan security assessment was performed on **July 23, 2023 15:20:51** on project **Hack-20220606-Discover (10K-FLP)** with the repository **Hack_20220606_Discover** on branch **default branch**. The assessment was carried out by scanning the project's codebase using the scan engine **AI Analyzer**. There are in total **1** vulnerabilities / security risks discovered during the scanning session, among which **0** critical vulnerabilities, **1** high risk vulnerabilities, **0** medium risk vulnerabilities, **0** low risk vulnerabilities, **0** informational issues.

ID	Description	Severity
MSA-001	MWE-200: Insecure LP Token Value Calculation	High risk



Findings

Critical (0)

No Critical vulnerabilities found here

High risk (1)

1. MWE-200: Insecure LP Token Value Calculation

 High risk Security Analyzer

Liquidity token value/price can be manipulated to cause flashloan attacks.

File(s) Affected

ETHpledge.sol #238-244

```
238     function getPrice() public view returns (uint256 _price) {
239         uint256 lpusdtamount=usdt.balanceOf(_lpaddr);
240         uint256 lpotheramount=other.balanceOf(_lpaddr);
241
242         _price=lpusdtamount*10**18/lpotheramount;
243
244     }
```

ETHpledge.sol #343-426

```
343     function ETHreceive() external returns (bool) {
344         bool Limited = receivetime[msg.sender] < block.timestamp;
345         require(Limited, "Exchange interval is too short.");
346
347         bool B1 = pledgeamount[msg.sender] > 0 ;
348         require(B1, "pledgeamount is zero.");
349         _swapprice=getprice();
350
351         uint256 bltt12=_b11.sub(income[msg.sender]);
352         uint256 blt11=pledgeamount[msg.sender].mul(bltt12).div(_baseFee);
353         bool y1=usdt.balanceOf(address(this)) >= blt11;
354         require(y1, "token balance is low.");
355
356         usdt.transfer(msg.sender, blt11);
357
358         uint256 blttttt=_b12+income[msg.sender]+income[msg.sender];
359         uint256 blt2=pledgeamount[msg.sender].mul(blttttt).div(_baseFee);
360
361         uint256 _recamount33333=blt2*10**18/_swapprice;
362         bool y2=other.balanceOf(address(this)) >= _recamount33333;
363         require(y2, "token balance is low.");
364         other.transfer(msg.sender, _recamount33333);
365
366
367
368         uint256 _recamount22=pledgeamount[msg.sender].mul(income[msg.sender]).div(_baseFee);
369         uint256 _recamount=pledgeamount[msg.sender]*10**18/_swapprice;
370
371         receiveamount[msg.sender]+=pledgeamount[msg.sender];
372         receivesYamount[msg.sender]+=_recamount22;
373         receivetime[msg.sender]=0;
374         pledgeday[msg.sender]=0;
375         income[msg.sender]=0;
376         pledgeamount[msg.sender]=0;
377         receivenumber[msg.sender]+=1;
378
379         address cur;
380         cur = msg.sender;
381
382         for (int256 i = 0; i < 5; i++) {
383             cur = inviter[cur];
384             uint256 rate;
385             uint256 lv;
386             if (i == 0) {
387                 rate = _father1;
388                 lv=1;
389             } else if(i == 1){
390                 rate = _father2;
391                 lv=2;
392             } else if(i == 2 ){
393                 rate = _father3;
394                 lv=3;
395             } if(i == 3 ){
396
397                 rate = _father4;
398                 lv=4;
399             }
```

```
400         } else if(i == 4 ){
401             rate = _father5;
402             lv=5;
403         }
404
405         if(rate>0){
406             if(sharenumber[cur]>=lv){
407                 if(pledgeamount[cur]==0){
408                     emit Transfer(cur, address(0), lv);
409                     emit Transfer(cur, address(1), 88);
410                     continue;
411                 }
412
413                 uint256 curTAmount = _recamount.mul(rate).div(_baseFee);
414
415                 bool y3=other.balanceOf(address(this)) >= curTAmount;
416                 require(y3,"token balance is low.");
417                 other.transfer(cur, curTAmount);
418                 bonus[cur]+=curTAmount;
419             }else{
420                 emit Transfer(cur, address(0), lv);
421                 emit Transfer(cur, address(1), sharenumber[cur]);
422             }
423         }
424     }
425     return true;
426 }
```

Recommendation

Do not use AMM pool or custom liquidity calculation to caculate LP token value/price.

Medium risk (0)

No Medium risk vulnerabilities found here

Low risk (0)

No Low risk vulnerabilities found here

Informational (0)

No Informational vulnerabilities found here

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