



Smart Contract Security Audit Report

HELP

September 2022

Security Status



www.hacksafe.io



Audit Details



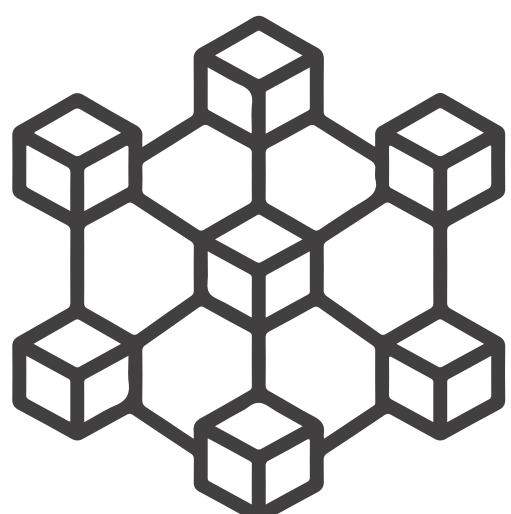
Audited project
HELP



Deployer address
0x00a6F91fb81165F62215014cC7Dd49be6bc71D3E



Client contacts
HELP Team



Blockchain
Ethereum



Website
Not provided

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

Procedure

Step 1 - In-Depth Manual Review

Manual line-by-line code reviews to ensure the logic behind each function is sound and safe from various attack vectors. This is the most important and lengthy portion of the audit process (as automated tools often cannot find the nuances that lead to exploits such as flash loan attacks).

Step 2 - Automated Testing

Simulation of a variety of interactions with your Smart Contract on a test blockchain leveraging a combination of automated test tools and manual testing to determine if any security vulnerabilities exist.

Step 3 – Leadership Review

The engineers assigned to the audit will schedule meetings with our leadership team to review the contracts, any comments or findings, and ask questions to further apply adversarial thinking to discuss less common attack vectors.

Step 4 - Resolution of Issues

Consulting with the team to provide our recommendations to ensure the code's security and optimize its gas efficiency, if possible. We assist project team's in resolving any outstanding issues or implementing our recommendations.

Step 5 - Published Audit Report

Boiling down results and findings into an easy-to-read report tailored to the project. Our audit reports highlight resolved issues and any risks that exist to the project or its users, along with any remaining suggested remediation measures. Diagrams are included at the end of each report to help users understand the interactions which occur within the project.

Background

HackSafe was commissioned by HELP to perform an audit of smart contracts:

- <https://etherscan.io/token/0xbbc2045d335cb224228f1850b29173d9d7d7b989#code>

The purpose of the audit was to achieve the

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be understood to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

Contract Details

Token contract details for 26.09.2022

Token Type	: ERC20
Contract name	: HELP
Contract address	: 0xbBc2045D335Cb224228f1850b29173d9d7D7b989
Total supply	: 28,000,000
Token ticker	: HELP
Decimals	: 18
Token holders	: 209
Transactions count	: 1,741
Compiler version	: v0.4.19+commit.c4cbbb05
Contract deployer address	: 0x00a6F91fb81165F62215014cC7Dd49be6bc71D3E
Owner address	: 0x00a6f91fb81165f62215014cc7dd49be6bc71d3e

Social profiles

Twitter Profile	: https://twitter.com/GoHelpFund_com
Facebook profile	: https://www.facebook.com/GoHelpFund
Telegram profile	: https://t.me/gohelpfund
Coinmarketcap Profile	: https://coinmarketcap.com/currencies/gohelpfund/
Coingecko profile	: https://www.coingecko.com/en/coins/help-token/

Claimed Smart Contract Features

Claimed Feature Detail

Tokenomics :

- Name : HELP
- Symbol :HELP
- Decimals : 18
- Protocol : BEP20
- Total supply : 28,000,000
- Contract address : 0xbBc2045D335Cb224228f1850b29173d9d7D7b989

Our Observation

YES, this is valid.

Audit Summary

According to the standard audit assessment, Customer`s solidity smart contracts are “Secure”. This token contract does contain owner control, which do not make it fully decentralized as owner does have control over smart contract.

Insecure	Poor secured	Secure	Well-secured
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You are here



We used various tools like Slither, Mythril 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 issues checking status.

We found 0 critical, 0 high, 0 medium and 2 low and some very low-level issues. These issues are not critical ones.

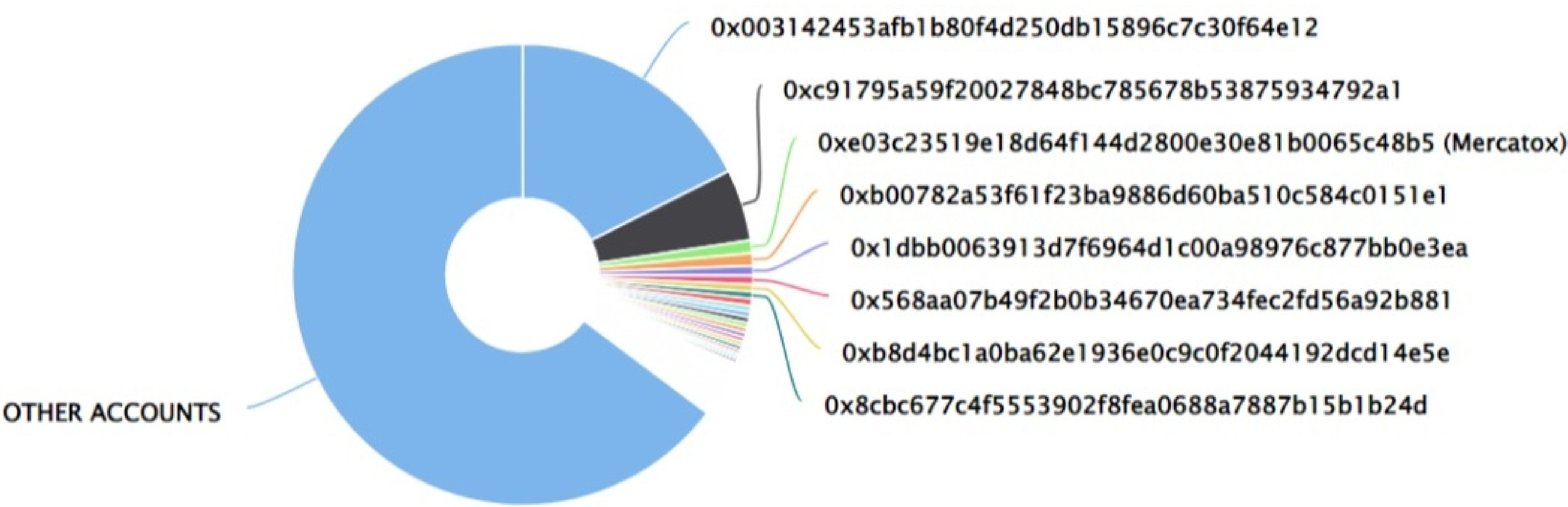
HELP Token Distribution

The top 100 holders collectively own 35.24% (9,865,918.10 Tokens) of HELP

Token Total Supply: 28,000,000.00 Token | Total Token Holders: 209


HELP Top 100 Token Holders

Source: Etherscan.io



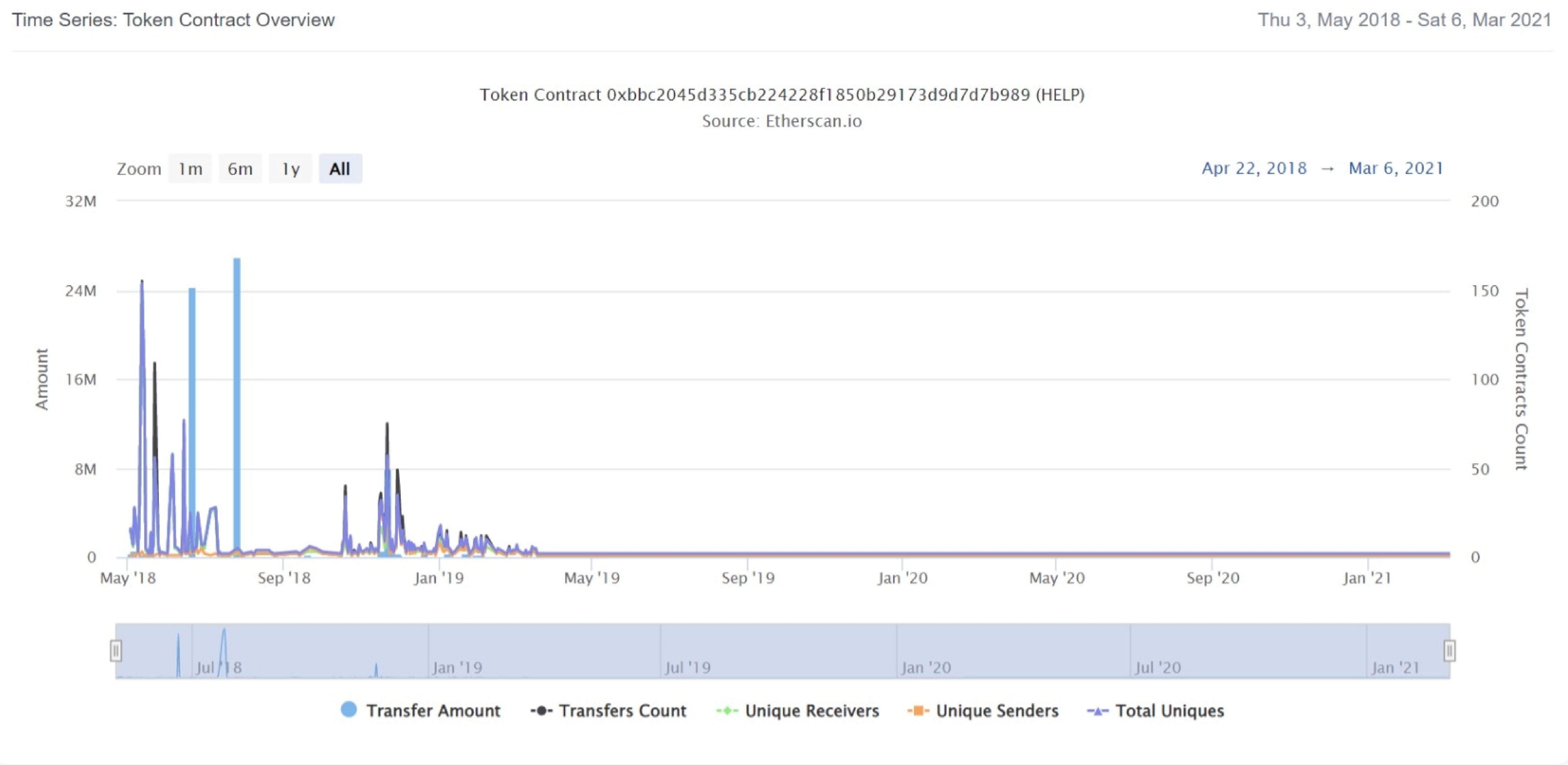
HELP Top 20 Token Holders

(A total of 9,865,918.10 tokens held by the top 100 accounts from the total supply of 28,000,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	0x003142453afb1b80f4d250db15896c7c30f64e12	4,927,292	17.5975%
2	0xc91795a59f20027848bc785678b53875934792a1	1,403,000	5.0107%
3	Mercatox	252,638.84079928	0.9023%
4	0xb00782a53f61f23ba9886d60ba510c584c0151e1	249,562	0.8913%
5	0x1dbb0063913d7f6964d1c00a98976c877bb0e3ea	185,297.2120481	0.6618%
6	0x568aa07b49f2b0b34670ea734fec2fd56a92b881	174,500	0.6232%
7	0xb8d4bc1a0ba62e1936e0c9cf2044192dcd14e5e	141,019.18730415	0.5036%
8	0x8cbc677c4f5553902f8fea0688a7887b15b1b24d	136,364	0.4870%
9	0x982bab9a26a5a994050041da835e0207e7af035f	136,364	0.4870%
10	0xb1da283bf172a476d5740abe3c14f0f90ee9950b	116,900	0.4175%
11	0x449024763aa9026a3ee4315b910d5ca073531570	112,424	0.4015%
12	0xdfe3eea8a81ff65c849dd49bb7543a67d630dd5e	104,255	0.3723%
13	0x00a6f91fb81165f62215014cc7dd49be6bc71d3e	100,188	0.3578%
14	0xb859289f9c6027d05f9b54d717315f9182798a0c	100,000	0.3571%
15	0x529af767c5e9b4cdaed304c94c7298b0d8d8bdd8	93,621.53076146	0.3344%
16	0xb5d7fb9820753789a1f3a4b1c7675c6b2bcae4f6	85,170	0.3042%
17	0x72880b697fbf5b35b596832c559cc691f36ef1b6	83,500	0.2982%
18	 GoHelpFund	82,922	0.2962%
19	0xc7eb72e0561cba896923064752662fb1b02b69c0	66,770	0.2385%
20	0x4e4e4d4752bb63f5290c52636ffc3edc632f7d9e	66,506	0.2375%

HELP Token Distribution

HELP Contract overview



Contract functions details

+ SafeMath

- [Int] safeAdd
- [Int] safeSubtract
- [Int] safeMult
- [Int] assert

+ HELP (SafeMath)

- HELP
- transfer #
- approve #
- transferFrom #
- burn #
- freeze #
- unfreeze #
- withdrawEther #
- \$

(\$) = payable function

= non-constant function

Issues Checking Status

No.	Title	Status
1.	Unlocked Compiler Version	Low issue
2.	Missing Input Validation	Passed
3.	Race conditions and Reentrancy. Cross-function race conditions.	Passed
4.	Possible delays in data delivery	Passed
5.	Oracle calls.	Passed
6.	Timestamp dependence.	Passed
7.	Integer Overflow and Underflow	Passed
8.	DoS with Revert.	Passed
9.	DoS with block gas limit.	Passed
10.	Methods execution permissions.	Passed
11.	Economy model of the contract.	Passed
12.	Private use data leaks.	Passed
13.	Malicious Event log.	Passed
14.	Scoping and Declarations.	Passed
15.	Uninitialized storage pointers.	Passed
16.	Arithmetic accuracy.	Passed
17.	Design Logic.	Passed
18.	Safe Open Zeppelin contracts implementation and usage.	Passed
19.	Incorrect Naming State Variable	Passed
20.	Too old version	Low issue

Severity Definitions

Risk Level	Description
Critical	Critical vulnerabilities are usually straightforward to exploit and can lead to assets loss or data manipulations.
High	High-level vulnerabilities are difficult to exploit; however, they also have a significant impact on smart contract execution, e.g., public access to crucial functions
Medium	Medium-level vulnerabilities are important to fix; however, they can't lead to assets loss or data manipulations.
Low	Low-level vulnerabilities are mostly related to outdated, unused, etc. code snippets that can't have a significant impact on execution.

Security Issues

✔ Critical Severity Issues

No critical severity issue found.

✔ High Severity Issues

No high severity issues found.

✔ Medium Severity Issues

No medium severity issues found.

✔ Low Severity Issues

Two low severity issue found.

1. Unlocked Compiler Version.

- **Description**

The contract utilizes an unlocked compiler version. An unlocked compiler version in the contract's source code permits the user to compile it at or above a particular version. This, in turn, leads to differences in the generated bytecode between compilations due to differing compiler version numbers. This can lead to ambiguity when debugging as compiler-specific bugs may occur in the codebase that would be difficult to identify over a span of multiple compiler versions rather than a specific one.

- **Recommendation**

It is advisable that the compiler version is alternatively locked at the lowest version possible so that the contract can be compiled. For example, for version ^0.4.19 the contract should contain the following line:

```
pragma solidity 0.4.19;
```

2. Too old compiler version.

- **Description**

Contract has been deployed using too old compiler version.

- **Recommendation**

It is advisable that the compiler version of solidity should be among the new compiler versions.

Centralization

Owner Privileges :

- HELP Contract:
 - Ower can withdraw ether.

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 as smart contract ownership has not been renounced. Following are Admin functions:

- Withdrawether

Conclusion

Smart contract contains low severity issues! The further transfer and operations with the fund raised are not related to this particular contract.

HackSafe note: Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.