Smart Contract Audit Kleros Governor

By, Shebin John 10th May 2020

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Note: Some threat levels or headings might be empty if there is no vulnerability/updates/suggestions found.

Introduction

The contract audited here is/are:

https://github.com/kleros/kleros/blob/0bfdbfe/contracts/kleros/KlerosGovernor.sol and was shared by Kleros for auditing purposes while working with them.

Based on the audit, we were able to find no High threats, no Medium threat, and 1 Low threat with some other changes in the optimization, readability, typos, and comments section.

High Threats

1. None

Medium Threats

1. None

Low Threats

1. <u>Line 244</u> can lead to Denial of Service if the correct order is not specified while adding the transactions in the list of submissions.

Optimization & Readability

1. Instead of <u>Line 482</u>'s comparison part of for loop, we could use the below code before the for loop and use it for the condition part in for loop:

```
uint iterateUntil = submission.txs.length;
if (_count != 0) { iterateUntil = submission.txs.length > (_cursor + _count) ? (_cursor + _count): submission.txs.length; }
```

Typo's & Comments

- 1. <u>Line 29</u>, change from `Tracks each appeal round of a dispute.` to `Tracks each appeal round of the dispute in the session in the form rounds[appeal].`
- 2. <u>Line 32</u>, <u>35</u>, etc could use `in the form` before showing how each literal is used. Like for <u>Line 32</u> `Tracks all lists that were submitted in a session. In the form submittedLists[submissionID].`
- 3. Above <u>line 373</u>, maybe a comment saying that more than one party has completely funded their appeal.

Suggestions

1. None