

AUDIT-SC
PARTNER
Death Token

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2022





FULL SMART CONTRACT AUDIT SOLIDITY CHECK

Audit SC Guarantees that every smart contract that has been audited has gone through both automated Smart Contract Scanner Softwares and is manually verified by one of our highly experienced smart contract experts.

Table of Contents

AUDIT-SC





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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OVERVIEW

PROJECT SUMMARY

| Project Name | Death Token - Masterchef, Death Token, Timelock |
|--------------|---|
| | |
| Platform | Polygon |
| | |
| Language | Solidity |

AUDIT SUMMARY

| Date | 28-01-2022 |
|--------------|--------------------------------|
| Audit Type | Static Analysis, Manual Review |
| Audit Result | PASSED |

RISK SUMMARY

| Risk Level | Total | Found | Pending | Solved | Acknowledgde | Objected |
|-------------|-------|-------|---------|--------|--------------|----------|
| Critical | 0 | 0 | 0 | 0 | 0 | 0 |
| Major | 0 | 0 | 0 | 0 | 0 | 0 |
| Medium | 0 | 0 | 0 | 0 | 0 | 0 |
| Minor | 0 | 0 | 0 | 0 | 0 | 0 |
| Informative | 12 | 12 | 12 | 0 | 0 | 0 |
| Discussion | 0 | 0 | 0 | 0 | 0 | 0 |



FINDINGS

Function Default Visibility

SWC-ID: SWC-100

Relationship:

CWE-710: Improper Adherence to Coding Standards

Description:

Functions that do not have a function visibility type specified are public by default. This can lead to a vulnerability if a developer forgot to set the visibility and a malicious user is able to make unauthorized or unintended state changes or unnecessary gas usage.

Relevance:

Public functions that are never called by the contract should be declared external to save gas.

| Category | Risk Level | Number of Findings | Status | |
|----------|-------------|--------------------|---------|--|
| SWC-100 | Informative | 12 | Pending | |

AUDIT DETAILS

SCW-100 Function Default Visibility

In Deathtoken and Masterchef:

renounceOwnership() should be declared external acceptOwnership() should be declared external

mint() should be declared external

In Timelock.sol

setDelay() should be declared external acceptAdmin() should be declared external

setPendingAdmin() should be declared external queueTransaction() should be declared external

cancelTransaction() should be declared external
executeTransaction() should be declared external

Note:

"Due to the replicate findings in Death Token and Masterchef, the replicates have been omitted"



AUDIT RESULT

Basic Coding Bugs

1. Constructor Mismatch

o Description: Whether the contract name and its constructor are not

identical to each other.

o Result: PASSED

o Severity: Critical

<u>Ownership Takeover</u>

o Description: Whether the set owner function is not protected.

o Result: PASSED

o Severity: Critical

Redundant Fallback Function

o Description: Whether the contract has a redundant fallback function.

o Result: PASSED

o Severity: Critical

Overflows & Underflows

Description: Whether the contract has general overflow or underflow

Vulnerabilities

o Result: PASSED

o Severity: Critical

Reentrancy

o Description: Reentrancy is an issue when code can call back into your

contract and change state, such as withdrawing ETHs.

o Result: PASSED

o Severity: Critical

MONEY-Giving Bug

o Description: Whether the contract returns funds to an arbitrary

address.

o Result: PASSED

o Severity: High

Blackhole

o Description: Whether the contract locks ETH indefinitely: merely in

without out.

o Result: PASSED

o Severity: High

Unauthorized Self-Destruct

o Description: Whether the contract can be killed by any arbitrary

address.

o Result: PASSED

o Severity: Medium

Revert DoS

o Description: Whether the contractis vulnerable to DoSattack because

of unexpected revert.

o Result: PASSED

o Severity: Medium

Unchecked External Call

o Description: Whether the contract has any external call without

checking the return value.

o Result: PASSED

o Severity: Medium

Gasless Send

o Description: Whether the contractis vulnerable to gasless send.

o Result: PASSED

o Severity: Medium

Send Instead of Transfer

o Description: Whether the contract uses send instead of transfer.

o Result: PASSED

o Severity: Medium



Costly Loop

o Description: Whether the contract has any costly loop which may lead

to Out-Of-Gas exception.

o Result: PASSED

o Severity: Medium

(Unsafe) Use of Untrusted Libraries

o Description: Whether the contract use any suspicious libraries.

o Result: PASSED

o Severity: Medium

(Unsafe) Use of Predictable Variables

o Description: Whether the contract contains any randomness variable,

but its value can be predicated.

o Result: PASSED

o Severity: Medium

<u>Transaction Ordering Dependence</u>

o Description: Whether the final state of the contract depends on the

order of the transactions.

o Result: PASSED

o Severity: Medium

. Deprecated Uses

o Description: Whether the contract use the deprecated tx.origin to

perform the authorization.

o Result: PASSED

o Severity: Medium

