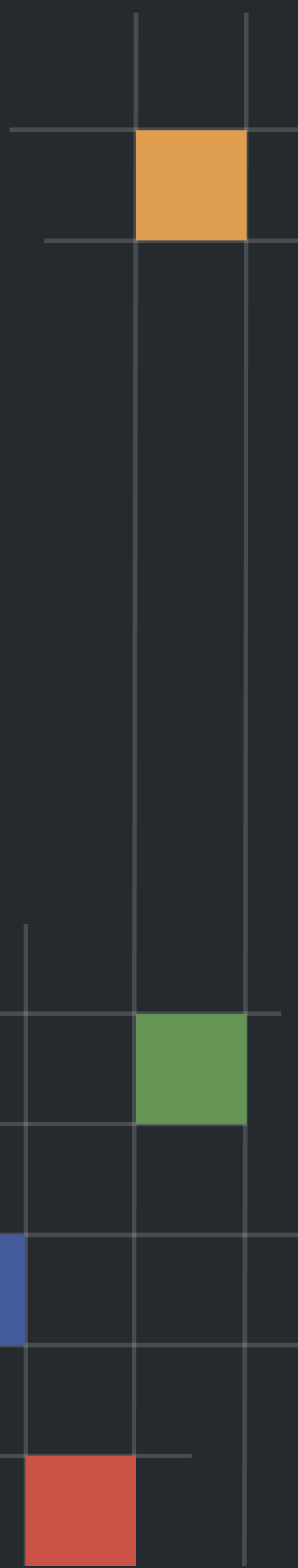




Security Assessment

# Derived Finance

Sept 1st, 2021



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# Summary

This report has been prepared for Derived Finance to discover issues and vulnerabilities in the source code of the Derived Finance project as well as any contract dependencies that were not part of an officially recognized library. A comprehensive examination has been performed, utilizing Static Analysis and Manual Review techniques.

The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Ensuring contract logic meets the specifications and intentions of the client.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- Thorough line-by-line manual review of the entire codebase by industry experts.

The security assessment resulted in findings that ranged from critical to informational. We recommend addressing these findings to ensure a high level of security standards and industry practices. We suggest recommendations that could better serve the project from the security perspective:

- Enhance general coding practices for better structures of source codes;
- Add enough unit tests to cover the possible use cases;
- Provide more comments per each function for readability, especially contracts that are verified in public;
- Provide more transparency on privileged activities once the protocol is live.

# Overview

## Project Summary

Project Name	Derived Finance
Platform	Ethereum
Language	Solidity
Codebase	<a href="https://github.com/DerivedFinance/TGE-Contracts">https://github.com/DerivedFinance/TGE-Contracts</a>
Commit	5fd61883e3d85f3dd65172ea13c94c5c71b1bb85 892b9fa905e6375aaf5fa5eebea38c226cc84b9

## Audit Summary

Delivery Date	Sept 01, 2021
Audit Methodology	Static Analysis, Manual Review
Key Components	

## Vulnerability Summary

Vulnerability Level	Total	⚠ Pending	⊗ Declined	ℹ Acknowledged	🕒 Partially Resolved	✅ Resolved
🔴 Critical	0	0	0	0	0	0
🟠 Major	1	0	0	1	0	0
🟡 Medium	0	0	0	0	0	0
🟠 Minor	0	0	0	0	0	0
🟡 Informational	0	0	0	0	0	0
🟢 Discussion	0	0	0	0	0	0

## Audit Scope

ID	File	SHA256 Checksum
DTD	DVD_Token/contracts/DerivedToken.sol	aa51d28df7e4583172c2d5bfad557e8e457f1858f1a879aab2b54c2db8216812

# Findings



<span style="color: red;">■</span> Critical	0 (0.00%)
<span style="color: orange;">■</span> Major	1 (100.00%)
<span style="color: gold;">■</span> Medium	0 (0.00%)
<span style="color: yellow;">■</span> Minor	0 (0.00%)
<span style="color: darkblue;">■</span> Informational	0 (0.00%)
<span style="color: green;">■</span> Discussion	0 (0.00%)

ID	Title	Category	Severity	Status
<a href="#">DTV-01</a>	Initial token distribution	Centralization / Privilege	<span style="color: orange;">●</span> Major	<span>ⓘ</span> Acknowledged

## DTV-01 | Initial token distribution

Category	Severity	Location	Status
Centralization / Privilege	● Major	../TGE-Contracts-main/DVD_Token/contracts/DerivedToken.sol	ⓘ Acknowledged

### Description

All of the tokens are sent to the contract deployer when deploying the contract. This could be a centralization risk as the deployer can distribute tokens without obtaining the consensus of the community.

### Recommendation

We recommend the team to be transparent regarding the initial token distribution process.

### Alleviation

**[Derived Finance]:** Alternative to minting tokens while deploying.

# Appendix

## Finding Categories

### Centralization / Privilege

Centralization / Privilege findings refer to either feature logic or implementation of components that act against the nature of decentralization, such as explicit ownership or specialized access roles in combination with a mechanism to relocate funds.

## Checksum Calculation Method

The "Checksum" field in the "Audit Scope" section is calculated as the SHA-256 (Secure Hash Algorithm 2 with digest size of 256 bits) digest of the content of each file hosted in the listed source repository under the specified commit.

The result is hexadecimal encoded and is the same as the output of the Linux "sha256sum" command against the target file.



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# About

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