



# SMART CONTRACT SECURITY AUDIT

CrowdSwap / vesting - contract

February, 2022

Website: [soken.io](https://soken.io)

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# Disclaimer

This is a comprehensive report based on our automated and manual examination of cybersecurity vulnerabilities and framework flaws. We took into consideration smart contract based algorithms, as well. Reading the full analysis report is essential to build your understanding of project's security level. It is crucial to take note, though we have done our best to perform this analysis and report, that you should not rely on the our research and cannot claim what it states or how we created it. Before making any judgments, you have to conduct your own independent research. We will discuss this in more depth in the following disclaimer - please read it fully.

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Security analysis is based only on the smart contracts. No applications or operations were reviewed for security. No product code has been reviewed.

# Procedure

## Our analysis contains following steps:

1. Project Analysis;
2. Manual analysis of smart contracts:
  - Deploying smart contracts on any of the network(Ropsten/Rinkeby) using Remix IDE
  - Hashes of all transaction will be recorded
  - Behaviour of functions and gas consumption is noted, as well.
3. Unit Testing:
  - Smart contract functions will be unit tested on multiple parameters and under multiple conditions to ensure that all paths of functions are functioning as intended.
  - In this phase intended behaviour of smart contract is verified.
  - In this phase, we would also ensure that smart contract functions are not consuming unnecessary gas.
  - Gas limits of functions will be verified in this stage.
4. Automated Testing:
  - Mythril
  - Oyente
  - Manticore
  - Solgraph

# Terminology

**We categorize the finding into 4 categories based on their vulnerability:**

- Low-severity issue — less important, must be analyzed
- Medium-severity issue — important, needs to be analyzed and fixed
- High-severity issue — important, might cause vulnerabilities, must be analyzed and fixed
- Critical-severity issue — serious bug causes, must be analyzed and fixed.

## Limitations

The security audit of Smart Contract cannot cover all vulnerabilities. Even if no vulnerabilities are detected in the audit, there is no guarantee that future smart contracts are safe. Smart contracts are in most cases safeguarded against specific sorts of attacks. In order to find as many flaws as possible, we carried out a comprehensive smart contract audit. Audit is a document that is not legally binding and guarantees nothing.

## Audit Details



Project Name: **CrowdSwap**

Language: **Solidity**

Compiler version: **v.0.8.10**

Blockchain: **Polygon**

## Social Profiles

Project Website: **<https://crowdswap.org/>**

Project Twitter: **[https://twitter.com/CrowdSwap\\_App](https://twitter.com/CrowdSwap_App)**

Project Telegram: **<https://t.me/crowdswap>**

Project LinkedIn: **<https://www.linkedin.com/company/crowdswap-crypto/>**

Project Discord: **<https://discord.com/invite/ugZa8Q5nmb>**

# CrowdSwap Whitepaper



Version 1.1

CrowdSwap, August 2021

Christian Mülder

Abstract

CrowdSwap is the **best-price-routing and aggregation protocol for decentralized finance (DeFi)**. It aims to reach mass adoption in crypto for every human being and overcome actual problems that reside from a fast-growing business space like DeFi.

CrowdSwap concentrates on providing the best prices for tokens across the DeFi space cross-chain.

CrowdSwap aims to get even people involved into the great crypto sphere. People who are already interested but can't afford the high transaction fees. People already in the space lack the knowledge needed to transfer tokens in the network or across network borders to other chains for better prices and transaction fees. For people who want to start trading but don't own cryptocurrencies yet and people who aren't allowed to sign up to centralized exchanges, CrowdSwap is the right place to start.

CrowdSwap's Whitepaper has been reviewed on behalf of Soken Team.

Whitepaper link: [https://crowdswap.org/wp-content/uploads/2021/12/Whitepaper20210403\\_EN\\_V1.1\\_Final.pdf](https://crowdswap.org/wp-content/uploads/2021/12/Whitepaper20210403_EN_V1.1_Final.pdf)

# Audit Scope

CrowdSwap/vesting-contract/contracts/

- BokkyPooBahsDateTimeLibrary.sol
- CrowdLinearDistribution.sol
- CrowdToken.sol
- Ownable.sol



# Vulnerabilities checking

Issue Description	Checking Status
Compiler Errors	Completed
Delays in Data Delivery	Completed
Re-entrancy	Completed
Transaction-Ordering Dependence	Completed
Timestamp Dependence	Completed
Shadowing State Variables	Completed
DoS with Failed Call	Completed
DoS with Block Gas Limit	Low-issues
Outdated Compiler Version	Completed
Assert Violation	Completed
Use of Deprecated Solidity Functions	Completed
Integer Overflow and Underflow	Completed
Function Default Visibility	Completed
Malicious Event Log	Completed
Math Accuracy	Completed
Design Logic	Completed
Fallback Function Security	Completed
Cross-function Race Conditions	Completed
Safe Zeppelin Module	Completed

# Conclusion

Smart contracts are free from any low, medium or high-severity issues.

NOTE: Please check the disclaimer above and note, that audit makes no statements or warranties on business model, investment attractiveness or code sustainability.

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