



LI.FI Security Review

WhitelistManagerFacet(v1.1.0), SwapperV2(v1.2.0)

Security Researcher

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1 About Researcher

Sujith Somraaj is a distinguished security researcher and protocol engineer with over eight years of comprehensive experience in the Web3 ecosystem.

In addition to working as a Lead Security Researcher at Spearbit, Sujith is also the security researcher and advisor for leading bridge protocol LI.FI and also is a former founding engineer and current security advisor at Superform, a yield aggregator with over \$170M in TVL.

Sujith has experience working with protocols / funds including Coinbase, Uniswap, Layerzero, Edge Capital, Berachain, Optimism, Ondo, Sonic, Monad, Blast, ZkSync, Decent, Drips, SuperSushi Samurai, DistrictOne, Omni-X, Centrifuge, Superform-V2, Tea.xyz, Paintswap, Bitcorn, Sweep n' Flip, Byzantine Finance, Variational Finance, Satsbridge, Rova, Horizen, Earthfast and Angles

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2 Disclaimer

Note that this security audit is not designed to replace functional tests required before any software release, and does not give any warranties on finding all possible security issues of that given smart contract(s) or blockchain software. i.e., the evaluation result does not guarantee against a hack (or) the non existence of any further findings of security issues. As one audit-based assessment cannot be considered comprehensive, I always recommend proceeding with several audits and a public bug bounty program to ensure the security of smart contract(s). Lastly, the security audit is not an investment advice.

This review is done independently by the reviewer and is not entitled to any of the security agencies the researcher worked / may work with.

3 Scope

- src/Facets/WhitelistManagerFacet.sol(1.1.0)
- src/Helpers/SwapperV2.sol(1.2.0)
- src/Interfaces/IWhitelistManagerFacet.sol(1.1.0)

4 Risk classification

Severity level	Impact: High	Impact: Medium	Impact: Low
Likelihood: high	Critical	High	Medium
Likelihood: medium	High	Medium	Low
Likelihood: low	Medium	Low	Low

4.1 Impact

- High** leads to a loss of a significant portion (>10%) of assets in the protocol, or significant harm to a majority of users.
- Medium** global losses <10% or losses to only a subset of users, but still unacceptable.
- Low** losses will be annoying but bearable — applies to things like grieving attacks that can be easily repaired or even gas inefficiencies.

4.2 Likelihood

High almost certain to happen, easy to perform, or not easy but highly incentivized

Medium only conditionally possible or incentivized, but still relatively likely

Low requires stars to align, or little-to-no incentive

4.3 Action required for severity levels

Critical Must fix as soon as possible (if already deployed)

High Must fix (before deployment if not already deployed)

Medium Should fix

Low Could fix

5 Executive Summary

Over the course of 3 hours in total, [LI.FI](#) engaged with the [researcher](#) to audit the contracts described in section 3 of this document ("scope"). This is a differential review focussed on the changes from previous version.

In this period of time a total of 2 issues were found.

Project Summary	
Project Name	LI.FI
Repository	lifinance/contracts
Commit	5c771a5
Audit Timeline	December 26, 2025
Methods	Manual Review
Documentation	High
Test Coverage	High

Issues Found	
Critical Risk	0
High Risk	0
Medium Risk	0
Low Risk	0
Gas Optimizations	1
Informational	1
Total Issues	2

6 Findings

6.1 Gas Optimization

6.1.1 Variable declarations inside loop in `_executeSwaps()`

Context: [SwapperV2.sol#L199-L200](#), [SwapperV2.sol#L244-L245](#)

Description: In `SwapperV2.sol`, the `_executeSwaps()` function declares **callTo** and **approveTo** variables inside the loop. Each iteration incurs unnecessary stack allocation costs that accumulate across multiple swaps.

Recommendation: Move the `callTo` and `approveTo` variable declarations outside the loop to reduce gas consumption.

LI.FI: Fixed in [20c223a](#)

Researcher: Verified fix.

6.2 Informational

6.2.1 Outdated function references in `IWhitelistManagerFacet`

Context: [IWhitelistManagerFacet.sol#L82](#), [IWhitelistManagerFacet.sol#L56](#)

Description: The `IWhitelistManagerFacet` interface contains references to `getWhitelistedAddresses()` and `isAddressWhitelisted()` functions that have been removed from the `WhitelistManagerFacet` implementation. These stale references may confuse developers integrating with the contract.

Recommendation: Remove all references to `getWhitelistedAddresses()` and `isAddressWhitelisted()` from `IWhitelistManagerFacet` to ensure documentation accuracy. Additionally ensure the interface is upto date with the current changes.

LI.FI: Fixed in [e3e5586](#)

Researcher: Verified fix.