

Fusion Finance Audit Conclusion

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I found no critical bugs, but only some very low impact flaws.

Findings

ID	Severity	Subject
CV-1	Medium	Local variable not needed
CV-2	Low	Comment for calculateLiquidationPoint function

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1 Introduction

The audit goal is a general review of the smart contract structure, critical/major bugs detection and issuing the general recommendations.

A project outline, Mocha Javascript test cases and a functioning UI were provided.

For this analysis the following files were audited:

- contracts/FusionCore.sol;
- contracts/FusionToken.sol;

1.1 Methodology

The methodology is not a strict formal procedure, but rather a collection of methods and tactics. In current audit I use:

- **General Code Assessment.** The code is reviewed for clarity, consistency, style, and for whether it follows code best practices applicable to the particular programming language used. I check indentation, naming convention, commented code blocks, code duplication, confusing names, confusing, irrelevant, or missing comments etc. At this phase we also understand overall code structure.
- **Code Logic Analysis.** The code logic of particular functions is analysed for correctness and efficiency. I check that code actually does what it is supposed to do, that algorithms are optimal and correct, and that proper data types are used. At this phase I also understand data structures used and the purposes they are used for.

2 Detailed Results

2.1 CV-1 Local variable not needed

- **Severity** Medium

- **Source** FusionCore.sol

Description

withdrawLend function is setting a local variable with the function parameter value and then updating the parameter to 0. Parameter is not used anymore after this so there is actually no need for this operation.

```
121     uint withdrawAmount = _amount;  
122     _amount = 0;  
123     lendingBalance[msg.sender] -= withdrawAmount;
```

Impact

Increased gas usage for function call.

Recommendation

Remove local variable and use parameter for the next “transfer” function.

```
121     lendingBalance[msg.sender] -= _amount;
```

2.2 CV-2 Missing comment for calculateLiquidationPoint function

- **Severity** Low

- **Source** FusionCore.sol

Description

There are no comments for function “calculateLiquidationPoint”.

```
87     function calculateLiquidationPoint(address _borrower) public view
```

Impact

No tangible impacts but following best practices improve clarity and security.

Recommendation

Add Natspec comments.