



Introduction & Scope

This audit looks into the Bread.sol contract and it was conducted by kebabsec members, Flame-Horizon, okkothejava.

Note: This report does not provide any guarantee or warranty of security for the project.

This is a pro bono security review, as Breadchain is a project created with the purpose of funding public goods.

Executive Summary

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 1. [INFORMATIONAL] Unnecessary storage read in function
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Findings:

1. [INFORMATIONAL] Unnecessary storage read in function

Review Comment

Context: Bread.sol#L118-L120

Description: Since function rescueToken has a onlyOwner modifier, it is unnecessary to do a storage read with owner(), as only the owner can interact with the function in the first place.

Recommendation: Use msg.sender instead.

2. [INFORMATIONAL] Initializers could be disabled during contract creation

Review Comment

Context: Bread.sol#L49-L51

Description: It is best practice to call _disableInitializers during contract creation

Recommendation: Call _disableInitializers in the constructor.

3. [LOW] `claimYield` clears out delegation for recipient

Context: Bread.sol#L113

Description: `claimYield` function, unlike the other functions which transfer tokens to a recipient, do not check if the recipient has an existing delegation and proceeds to self-delegate. This can be used by the privileged roles, the admin and the yield claimer, to remove the delegation of any user by specifying them as the yield recipient.

Recommendation: Check if the recipient has an existing delegation.