
[WD] Dual staking: olas service staking + bio token pseudo staking

Summary:

Created: Feb 18, 2025

Current Version: 1.0.0

Approved for external use by: N/A

Status: **WIP** | In-Review | Approved | Obsolete

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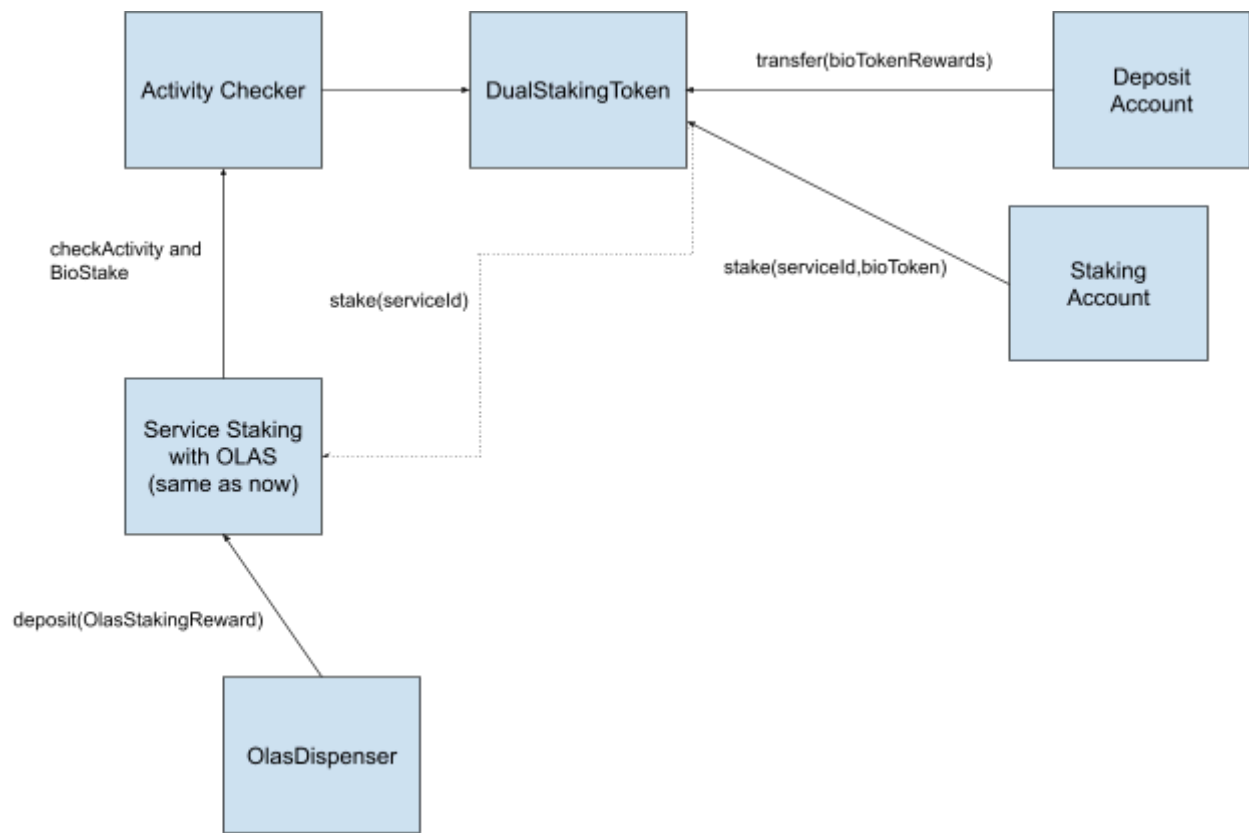
Approvers: David Minarsch

[WD] Dual staking: olas service staking + bio token pseudo staking	1
Dual staking contract for staking OLAS service and BIO tokens	1
Development time	2
Implementation link	2

Dual staking contract for staking OLAS service and BIO tokens

The DualStakingToken Contract would be a coordinating contract for OLAS service and BIO tokens. The proposal is that it performs as follows:

1. Has a `stake(serviceId)` function that accepts a specified **deployed** service Id and amount of specified BIO tokens proportional to the OLAS staked amount.
2. Creates a record for the service Id, its owner and the amount of BIO tokens deposited.
3. Allows anyone to send BIO tokens to fund available BIO token rewards (via regular ERC20 `transfer` method). Rewards in BIO are set as a ratio based on OLAS `rewardsPerSecond`.
4. Stakes service Id to a specified OLAS service staking contract.
5. Activity checker for the service staking contract checks OLAS service activity as specified, plus refers to the DualStakingToken contract to check that a specified service multisig has corresponding record with staked BIO tokens.
6. During `claim` / `withdraw`, OLAS rewards and BIO rewards are transferred to the service Id multisig.
7. The `checkpoint()` function in the DualStakingToken Contract performs the Service Staking checkpoint.
8. BIO PoAA part includes the wrapping of EAS attestation calls via multisig calling the corresponding function in DualStakingToken contract.



Implementation link

https://github.com/valory-xyz/autonolas-staking-programmes/tree/main/contracts/dual_token