Token Vault

Inspired by Balancer protocol, improved for gauges In the current landscape of DEXs, each trading pair operates with an individualized contract, and tokens for each pair are housed separately. In scenarios where a token swap traverses one or more intermediary steps, it necessitates the movement of tokens between these individual pairs. The implications of this process are an increase in cost that scales linearly with the length of the paths as each pair instigates its own standalone swap. This occurrence is particularly prevalent when an exchange of tokens for USDC is initiated, given that the majority of token pairs are associated with ETH.

To alleviate this inefficiency, Balancer pioneered the concept of a TokenVault. The core principle behind this innovation is the separation of the token pool from the logic of swapping, thus enhancing overall efficiency. Building upon this breakthrough, Velocore adopted the TokenVault concept, but with an added twist. They incorporated the gauges found in ve(3,3) DEXs into their TokenVault, resulting in an optimized token storage process.

For instance, assume an operation where a substantial amount of ETH is being exchanged for VC. The optimal pathway for such a large-scale transaction would be to distribute the purchase between VC-ETH and VC-USDC pairs in a ratio that mirrors your liquidity size, as opposed to procuring them entirely from a single pair. This strategy fosters substantial efficiency gains, especially in terms of gas costs. A detailed diagram elucidating these efficiency gains from the perspective of gas costs can be found in the following section.

The primary source of gas consumption during the swap process is the token transfer. Previously, this involved five transfers, whereas Velocore has streamlined this process to involve only two fixed in/out transfers. This reduction becomes even more pronounced when the swap undergoes complex routing via a DEX aggregator.

In fact, many DEX aggregators incorporate gas cost losses in their swaps. This consideration subsequently diverts more swaps towards Velocore due to its efficiency. As a result, the platform's gas savings directly enhance the appeal and effectiveness of Velocore in the broader decentralized finance ecosystem.