Flash Layer Rollups

A persistent issue for blockchains has always been scalability. We frequently see cases of a single dApp's sudden surge in popularity bringing the entire network close to a halt. The fundamental cause of such scalability issues is the idea and practice of running all the dApps on a single monolithic blockchain. Some of the common causes of a large surge in usage include but is not limited to token sales, play-to-earn game events and airdrops. A common trait among these causes is that they are relatively independent and are transient in nature. In light of this, AltLayer provides a unique rollup called FlashLayer . Flash layers are disposable application-tailored rollups with optional fraud proofs. With Flash Layers, a dApp developer expecting an increase in demand for his application could: 1) quickly spin up a fast and scalable rollup secured by a Layer 1, 2) use the rollup for as long as needed and thereby prevent clogging of the Layer 1, and then 3) dispose of the rollup by doing an “end-of-life” settlement on the Layer 1. This makes the entire system highly resource-optimised. The execution layer and its resources are called upon only when the dApp expects a considerable demand that a Layer 1 can’t handle and once the demand tapers off, the dApp can move back to the Layer 1.

Flash Layer provides an elastic burst of capacity in the form of a transient execution layer secured by an underlying chain. Rather than building a custom chain for a specific event or to deploy the contract on the Layer 1 itself, the event administrator may signal the demand for a transient burst of compute capacity. This in turns creates a FlashLayer specific for the dApp with the appropriate state and asset bridging facilities. At the end of the signaled duration, the states and assets of the FlashLayer are rolled-up onto the underlying Layer 1 chain and the FlashLayer is disposed off with all its resources freed. AltLayer's In-House Rollup Stack in Depth -Previous Security via Fraud ProofNext Example Use cases
Last modified1mo ago