

# Two-Way Pegged Sidechains On Ergo (ErgoHack Report)

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## Abstract

In this report we outline some ways to implement pegged sidechains on Ergo with smart contract powered transfers, where both main and side chains are based on UTXOs and support ErgoTree (in its current form, at the same time, sidechain may support more features). In such setting, transfer from sidechain and back can be done via on-chain contract, then security issues are reduced to sidechain consensus issue only.

## 1 Introduction

A sidechain [1] is a secondary blockchain connected to the main blockchain with a two-way peg. Pegged sidechains enable ERG (native cryptocurrency of the Ergo blockchain) and other Ergo blockchain assets to be transferred between multiple Ergo-like blockchains. Sidechains can be considered as playgrounds for experimental features, or

### 1.1 Ergo blockchain details

We provide relevant Ergo blockchain needed here.

## 2 Sidechain Data on the Mainnet

### 2.1 Merged-Mined Sidechains

## References

- [1] A. Back, M. Corallo, L. Dashjr, M. Friedenbach, G. Maxwell, A. Miller, A. Poelstra, J. Timón, and P. Wuille, “Enabling blockchain innovations with pegged sidechains,” *URL: [http://www. opensciencereview.com/papers/123/enablingblockchain-innovations-with-pegged-sidechains](http://www.opensciencereview.com/papers/123/enablingblockchain-innovations-with-pegged-sidechains)*, vol. 72, pp. 201–224, 2014.