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Incremental Bitcoin Snapshots

The full text is currently only available in the Deutsch version. A translation will follow.

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This project presents an architecture for a compressible blockchain, which supplements the primary blockchain with a second linked blockchain. This second blockchain consists of regularly generated snapshot blocks, which summarize the current UTXO set. By dividing the UTXO set into three parts, both new and occasionally started nodes can get all the relevant information quickly and effectively. A new node only has to load the last block in the second chain and all blocks created afterward in the first chain. Nodes that have already been partially synchronized can, depending on their backlog, load the incremental updates or the entire last block. Using the compressible blockchain presented here, storage space and bandwidth consumption can be reduced by up to 98%.