

1 Introduction

Nowadays cryptocurrency has become a buzzword in both industry and academia. As one of the most successful crypto-currency. Bitcoin has enjoyed a huge success with its capital market reaching 10 billion dollars in 2016.

2 Blockchain Architecture

Blockchain is a sequence of blocks, which holds a complete list of transaction records like conventional public ledger. A block has only one parent block. It is worth noting that uncle blocks(children of the block's ancestors) hashes would also be stored in ethereal blockchain.