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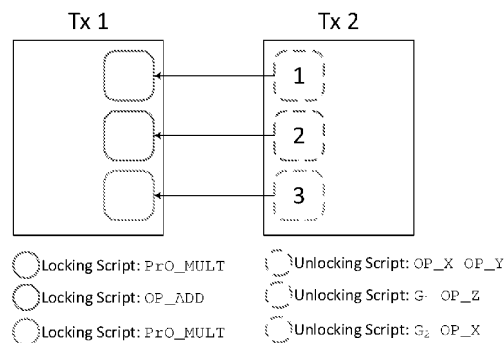
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BLOCKCHAIN WHILE PRESERVING SECURITY-BASED RESTRICTIONS ON SCRIPT SIZE AND OPCODE LIMITS

Figure 1: Chain of transaction for Embodiment 1 example



(57) Abstract: The invention relates to blockchain technologies such as the Bitcoin blockchain. The invention uses a novel technique to decompose the functionality of a blockchain transaction script into several chunks or functional parts, and to use the output of a chunk as the input of the next chunk. Advantageously, this allows the blockchain to be used for ever complex tasks and computations while minimising script size, and also provides a novel architecture for the distributed execution of computational processes. The invention comprises a method of using a plurality of blockchain transactions to execute a computer- implemented task, the method comprising the steps: using an unlocking script (ULS1) in a blockchain transaction (Tx2) to present at least one data item to a locking script (LS1) of another transaction (Tx1) so as to provide a result on a stack; generating a further unlocking script (ULS2) which comprises the

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result provided on the stack; presenting the further unlocking script (ULS2) to a further locking script (LS2) such that the result from the stack is provided as input to the further locking script.