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Design of a Blockchain Architecture and Use of Smart Contracts to Improve Processes in Notary Office

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Abstract

The present investigation proposes the use of the blockchain as a replacement mechanism for the current notarial system, the use of smart contracts is applied for this purpose, in which all the terms or clauses of a transaction are detailed, as in a traditional contract, but with new capabilities and security mechanisms specific to blockchain due to its native encryption algorithms, without the intervention of third parties, the proposed architecture establishes the processes of consensus and distribution of the

general ledger in each of the nodes, distributed in the different certification entities or organizations, as well as each of the components that intervene during the process of generating a new transaction that will begin with the agreement between a seller and a buyer on a good, whether a vehicle, a house, a land, etc., also seeking to eliminate the intervention of several state entities in the notarial processes, in addition to complying fully all the clauses of the contracts generated. © 2022, Springer Nature Switzerland AG.

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