

## **Cryptocurrency-Based Mobile Payments with Near-Field Communication-Enabled Devices**

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**Abstract :** Cryptocurrencies are getting increasingly popular, but very few of them can be conveniently used in daily mobile phone purchases. To solve this problem, we demonstrate how to build a functional prototype of a mobile cryptocurrency-based e-commerce application that communicates with Near-Field Communication (NFC) tags. Using the system, users are able to purchase physical items with an NFC tag that contains an e-commerce URL. The payment is done simply by touching the tag with a mobile device and accepting the payment. Our method is constructive: we describe the design and technologies used in the implementation and evaluate the security and performance of the solution. Our main finding is that the analysis and measurements show that our solution is feasible for e-commerce.

**Keywords :** cryptocurrency, e-commerce, NFC, mobile devices

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