Identification of Black Money and Fake Currency

A. Merry Ida*, Ambarish G.V.S, Dhamodaran R, Manoj Kumar N, Yashwanth Raj S
Dept. of Computer Science and Engineering, Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College, Anna University, Chennai, India.
***Corresponding Author Email: idamerry@gmail.com**

ABSTRACT

NFC tag is attached with the rupees note, in this tag includes the rupee value, tag number and expiry date of currency. We are implementing 4 methodologies for identifying the black money. In every office/shops we install money counting device which would read the currency like tag no, value and expiry date. We would provide reader device which can be attached to the android mobile via OTG connectivity to any of the merchants/vendors. QR code - In case of small vendors like street business merchants (vegetable selling people). So public can scan the QR code which contains the account details of the server. Automatically amount would be credited to the sellers account. We are implementing cashless transaction using card. Using all of the above four methodologies RBI can easily track of all the transactions (Income & Expenditure) made by every individual user. One more implementation is SMS notification for expiry currency.

KEY WORDS: Tax evasion, Near Field Communication, Quick Response Code.

1. INTRODUCTION

HF-based RFID and NFC systems are widely spread nowadays. They can be found in our everyday lives, in applications such as payment, transportation and logistics, healthcare, and access control systems. A particular boost has been recognized since RFID/NFC reader functionality has been integrated into a vast amount of smart phones. The basic principle of such a contactless RFID/NFC system is illustrated. The reader device emits an alternating magnetic field, which is used to power the transponder and to exchange data with it by means of modulation. The achievable reading distance of such a contactless and passive system depends on several factors. One of the most important factors is the size of the antenna: the larger the antenna, the better the coupling. However, the smaller the antenna and the tags are, the higher is typically the variety of products that can be tagged. If such transponders are manufactured small enough, then they can be integrated into various products, casings, or consumable materials in a discreet way. Given this motivation, it is of highest interest to provide small-sized and secured RFID technology, which can be integrated into products in a very discreet way and which can be verified in terms of authenticity with commonly available RFID reader devices. However, to the best of our knowledge, there is a major gap in industry and in academia concerning this field of application. This work addresses the outlined gap and presents a miniaturized, system-in-package, contactless and passive authentication solution that features NFC and state-of-the-art security measures. This is achieved by integrating Infineon Technologies' CIPURSET Move chip which is a security chip featuring an open security standard, into embedded Wafer Level Ball Grid Array (eWLB) packages, together with HF-antennas, ferrites, as well as discrete elements that improve HF-coupling characteristics.

Related work:

Currency enrollment: We can design and implementation of currency enrolment. In this every currency having tag number, currency value and serial number. Here first the User wants to create an account and then only they are allowed to access the Network. Once the User creates an account, they are to login into their account and request the Job from the Service Provider. Based on the User's request, the Service Provider will process the User requested Job and respond to them. All the User details will be stored in the Database of the Service Provider. In this Project, we will design the User Interface Frame to Communicate with the Server through Network Coding using the programming Languages like Java. By sending the request to Server Provider, the User can access the requested data if they authenticated by the Service Provider.

RBI server: Bank Service Provider will contain information about the user in their Data Storage. Also the Bank Service provider will maintain the all the User information to Authenticate when they want to login into their account. The User information will be stored in the Database of the Bank Service Provider. To communicate with the Client and with the other modules of the Company server, the Bank Server will establish connection between them. For this Purpose we are going to create a User Interface Frame.

QR code process: QR code short for Quick Response code is a specific two-dimensional code readable by dedicated QR code readers and smart phones. The code consists of black module arranged in a sequence pattern on a white background. The information encoded can be text, URL or other data. In case of small vendors like street business merchants vegetable selling people and so, Public can scan the QR code which contains the account details of the server. Automatically amount would be credited to the specific user account.

Cashless transaction: We will create and implementation of cash less transaction. As per the government policy, we are implementing cashless transaction using card. As we know card transaction is activated in the bank.

Black money detection: We will create and implementation of black money detection. Using the entire above four methodologies RBI server can easily track all of the transactions (Income & Expenditure) made by every individual

users, merchants or vendors. This is directly compared with the total audit report provided by these people. This system will strongly detect the black money process.

Expiry SMS alert: We will create and implementation of SMS alert for expiry date of currency. Every currency note having expiry date. In case currency is expiry means automatic SMS alert to corresponding user. This system will totally eradicate the black money.

Figure.1. System architecture

Implementation: In the system, we first investigate the classic tax evasion cases, and employ a graph-based method to characterize their property that describes two suspicious relationship trails with a same antecedent node behind an Interest Affiliated Transaction (IAT). Between the transaction parties the most important Thing is that there exists a complex and covert interactive relationship. For example, if there exist. We are implementing 4 methodologies for identifying the black money. In every office/shops we install money counting device which would read the currency like tag no, value and expiry date. We would provide reader device which can be attached to the mobile via OTG connectivity to any of the merchants/vendors. QR code - In case of small vendors like street business merchants (vegetable selling people). So public can scan the QR code which contains the account details of the server. Automatically amount would be credited to the sellers account. We are implementing cashless transaction using card. Using all of the above four methodologies RBI can easily track of all the transactions (Income & Expenditure) made by every individual user. One more implementation is SMS notification for expiry currency.

2. CONCLUSION AND FUTURE ENHANCEMENTS

In every office/shops we install money counting device which would read the currency like tag no, value and expiry date. We would provide reader device which can be attached to the mobile via OTG connectivity to any of the merchants/vendors. QR code - In case of small vendors like street business merchants (vegetable selling people). So public can scan the QR code which contains the account details of the server. Automatically amount would be credited to the sellers account. We are implementing cashless transaction using card. Using all of the above four methodologies RBI can easily track of all the transactions (Income & Expenditure) made by every individual user. One more implementation is SMS notification for expiry currency.

REFERENCES

Antunes L, Balsa J and Coelho H, Agents that Collude to Evade Taxes, in Proc. 6th Int. Conf. Autonomous Agents and Multivalent Systems (AAMAS), 2007, 1263–1265.

Chen Y.S and Cheng C.H, A Delphi-Based Rough Sets Fusion Model for Extracting Payment Rules of Vehicle License Tax in the Government Sector, Expert Systems with Applications, 37 (3), 2010, 2161–2174.

Feng Tian, Tian Lan, Kuo-Ming Chao, Nick Godwin, Qinghua Zheng, Nazaraf Shah, Fan Zhang, Mining Suspicious Tax Evasion Groups in Big Data, 2016.

Ferrantino M.J, Liu X and Wang Z, Evasion Behaviors of Exporters and Importers, Evidence from the U.S.-China Trade Data Discrepancy, Journal of International Economics, 86 (1), 2012, 141–157.

Fox W.F, Lunab L and Schau G, Destination Taxation and Evasion: Evidence from U.S. Inter-State Commodity Flows, Journal of Accounting and Economics, 57 (1), 2014, 43–57.

Gao Z, Transfer Price-Based Money Laundering, A Transit Trader's Perspective, in Proc. 4th Int. Conf. Wireless Communications, Networking and Mobile Computing (WiCOM), 2008, 1–5.

Gonzlcleza P.C and Vellcsquez J.D, Characterization and Detection of Taxpayers with False Invoices Using Data Mining Techniques, Expert Systems with Applications, 40 (5), 2013, 1427–1436.

Goumagias N, Hristu-Varsakelis D and Saraidaris A, A Decision Support Model for Tax Revenue Collection in Greece, Decision Support Systems, 53 (1), 2012, 76–96.

Han J, Kamber M and Pei J, Data Mining: Concepts and Techniques, Burlington, Massachusetts: Morgan Kaufmann, 2011.

Hasseldinea J and Morris G, Corporate Social Responsibility and Tax Avoidance: A Comment and Reflection, Accounting Forum, 37 (1), 2013, 1–14.