

Currency less Transaction in Ubiquitous Computing

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Abstract - The E commerce, M Commerce and U commerce Plays important role in business opportunities. Now a days the cashless, M valet establishing the new trend in the market. This Paper presents the overview of E commerce and proposes the Currency less transition system developed on any smart devices.

Key Words: E-commerce, M-commerce, currency, sensor.

1. INTRODUCTION

The radio frequency identification (RFID), smart sensor and sensor networks are widely used in ubiquitous computing, which is also called “anytime, anywhere” computing. Surfing the Internet decoupled from landline computers and do anything any time, business.

The u-commerce is defined as “the use of ubiquitous networks to support personalized and uninterrupted communications and transactions between a firm and its various stakeholders to provide a level of value over, above, and beyond traditional commerce”.[3] The u-commerce applications are paying the utility bills by mobiles such as gas bill ,parking charges ,fast food ,laundry applications etc.[4] The main component of the u-commerce system is the CPU having network connectivity in short the smart phones equipped with the internet connectivity. The Personnel digital Assistant can also use in U commerce application. This Paper presents the currency less transaction system used at various applications. This paper is organized in the sections. The section II describes overview of E-commerce and U commerce applications are discussed in Section III. The section IV proposed the currency less system. The paper is concluded in section V.

2. E-COMMERCE

E-Commerce or Electronics Commerce is a methodology of modern business which addresses the need of business organizations.E-Commerce provides facilities to use of

credit cards, debit cards, smart cards, electronic fund transfer via bank's website and other modes of electronics payment. E-commerce automates business of enterprises and services provided by them to customers are available anytime, anywhere. i.e. 24x7 refers to 24 hours of each seven days of a week. E-commerce increases the reach of advertising of products and services of businesses. It helps in better marketing management of products / services. Using E-Commerce, orders for the products can be generated anytime, anywhere without any human intervention.

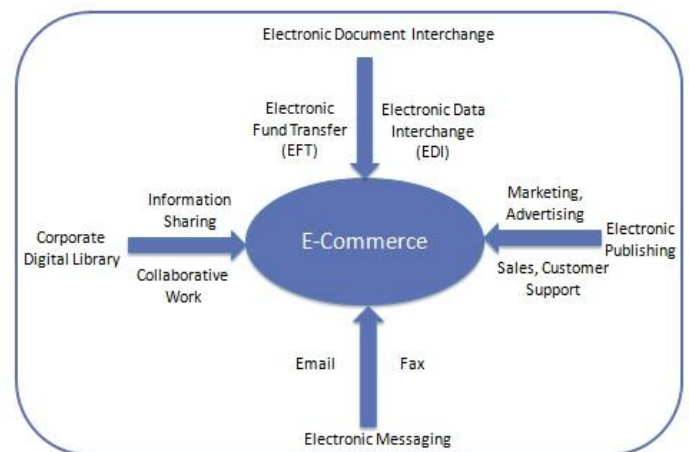


Figure 1: Overview of E-Commerce.

By this way, dependencies to buy a product reduce at large and sales increases. E-Commerce provides various ways to provide pre sales and post sales assistance to provide better services to customers. Using E-Commerce, inventory management of products becomes automated. Reports get generated instantly when required. Product inventory management becomes very efficient and easy to maintain. E-Commerce provides ways for faster, efficient, reliable communication with customers and partners. The fig 1 shows the examples of E commerce. For various applications such as electronic fund transfer.

3. U-COMMERCE

U-commerce refers to “the use of ubiquitous networks to support personalized and uninterrupted communications and transactions between a firm and its various stakeholders to provide a level of value above and beyond traditional commerce”. These stakeholders include customers, suppliers, governments, financial institutions, managers, employees, and the public at large. U-commerce can be viewed as an application of ubiquitous computing that supports communications and transactions between organizations and their stakeholders.

4. CURRENCY LESS TRANSACTION SYSTEM

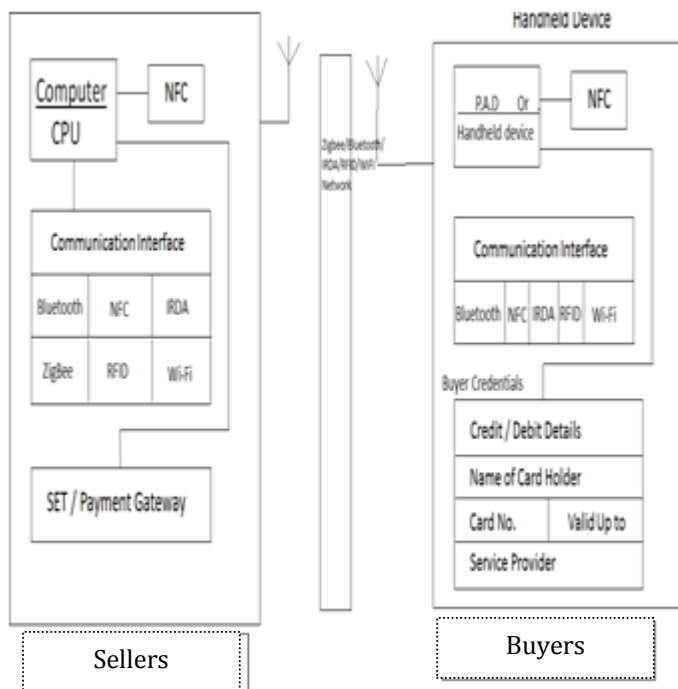


Figure 2: Currency less Transaction System

The Currency less transaction system is shown in Fig No 2. Handheld Device or Computer system can connect to other handheld device or computer through IRDA. Infrared Data Association or Bluetooth or ZigBee or RFID or near field communication protocol. The Merchant’s device must be capable to perform secure Electronic Transaction through payment gateway. The Buyer’s handheld device also supports the wireless communication protocol such as Bluetooth, IRDA, ZigBee or RFID or NFC.

The credentials of buyer required for cashless transaction are filled in the device such as Name & Card Holder, Card No, Validity, Bank Details, and Personal Identification Number etc.

The Consumer can fill the Details and product in the handheld device of the matches with the seller product. The buyers select the device and purchase it with cashless transaction. The Merchant and Consumer’s devices communicate with each other via wireless protocol.

This system is useful in shopping mall v when a user enters an electronics store while carrying a wireless-enabled PDA, the device will recognize the location of the user and present the user with appropriate personalized information for shopping such as product information, customer services, warranties, financing, and so forth. If the user is interested in an electronic device in the store, such as an inkjet printer, he/she can point his/her PDA to the device and product comparison information will be displayed on the PDA. If user wants to purchase the selected product the device enabled with the currency less transaction facility will communicate with the merchant device to complete the billing Procedure.

5. CONCLUSIONS

This paper discusses about application of U-Commerce in cashless transaction. This application can be used in shopping mall. By using U-commerce, in which users can access networks at any time from any place, using a range of devices to invoke unique and personalized services.

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