Digital Cash

Digital Cash (also known as e-currency, e-money, electronic cash, electronic currency, digital money, digital currency, cyber currency) refers to a system in which a person can securely pay for goods or services electronically without necessarily involving a bank to mediate the transaction. This article briefly describes the concept of Digital Cash and its features.

History

In ancient times, people would simply barter to obtain the goods and services they needed. The theory was quite simple: two parties each possessing a commodity the other wanted would enter an agreement to trade their commodities (goods or services). If party A had a Sheep and needs Cereals, it must not only find a party which has Cereals but also wants a Sheep (probably for its Wool). Further there might be party B which needs a Sheep, but has no Cereals to barter. This system was confusing, tiring and inefficient. Moreover if party A happens to find someone with whom they can trade their Sheep with Cereals, they might not think that few bags of grains are worth a Sheep. Both parties have to devise a formula to divide the Sheep and come to a conclusin, how many bags of Cereals is party A willing to accept for certain parts of the Sheep.

To solve such problems money came to resuce as a medium of exchange that facilitates trade. Various forms of Money were used in colonial times like beaver pelts, dried corn, copper coins, gold and so on. Paper money was introduced to lessen the burden of carrying and exchanging thousands of copper coins and also for the need of credit. Paper cash is popular amongst people as it is easy to carry, they can make payments with the received cash and they don't need a third party like a bank to intermediate. One of its major drawback is it can be stolen or lost and no one compensates the for the lost or stolen money.

Having gradually replaced central bank notes and bank checks with plastic cards, electronic fund transfers and automated clearing-houses(ACH), the world is now readying itself for the next step in the automation of money. [1]

Credit cards do reduce the risk of lost cash to some extent, but at the same time there is a risk of losing ones privacy. Each year, credit card companies and banks incure a huge loss since they are required to compensate for lost cards along with the costs associated with fraudulent transactions.

The solutions to the above problems faced by paper cash and credit cards is Digital Cash which is secure and protects people's privacy.

Definition

Electronic money is broadly defined as an electronic store of monetary value on a technical device that may be widely used for making payments to undertakings other than the issuer without necessarily involving bank accounts in the transaction, but acting as a prepaid bearer instrument. [2]

Basic Model of Digital Cash transaction

A Digital Cash transaction usually involves three types of users:

- a Payer (P) or consumer
- a Payee (R), such as a merchant
- a financial network like a Bank with whom both Payer and Payee have accounts.

And usually involves three transaction:

- Withdrawl, the Payer (P) transfer some money (token) from his/her account to her wallet (which could be a computer or smart case)
- Payment, the Payer (P) transfer the withdrawn money (token) to the Payee's (R) wallet
- Deposit, the Payee (R) transfers the received money (token) to his/her account.

Important properties of a Digital Cash system

Security: The most important feature of a Digital Cash system is that it should ensure a high-level of security through sophisticated authentification techniques, Which means it should not be copied or reused by the payer, the payee or anyone else.

Anonymity: It should be able to maintain the anonymity of the person, i.e the transaction carried out should not be traceable.

Portability: The use of such a system should be independent of the location. The transactions can be carried over computer networks and into storage devices and vice versa.

Tranferability: The user can spend the money received in payment without having to contact a bank for authentication

Divisibility: This allows the digital cash to be sub-divided into smaller denominations and the customer can choose to spend only a part of it.

User friendly: Both the payer and payee should be able to use it with ease which would make it widely acceptable.

Issues

Although Digital Cash provides a host of features like ease-of-use, anonymity, efficiency there are potential issues with its use like tax evasion, money laundering, instability in exchange rates and so on.

Examples

- Paypal

- [Western Union](#)

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[Digital wallet](#)

— *[Vinay Patil](#)* 2011/09/30 23:27

[1)](#)
Guttmann R (2003): Cybercash: the coming era of electronic money, New York, Palgrave Macmillan. p3 Print
[2)](#)
http://www.ecb.int/pub/pdf/other/emoneyen.pdf (accessed 30.09.2011)

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