# Review of Security Issues and Solutions on Electronic Data Interchange in E-Commerce

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Abstract: E-Commerce trades products and services across the network. Data can be electronically exchange by using E-Commerce. E-Commerce becomes very important for business purpose. There are variety of challenges faced which occur during online retailing, and we have to provide solutions against these security issues. In this paper, a review of Electronic data interchange is done that how data can be exchange electronically. A review of security issues and security solutions are also analyzed in this article.

**Keywords: E-Commerce, EDI, Security Issues, Security Solutions.**

## 1. Introduction

E-Commercehas a lot of impact on the global business market and applications that are based on mobile computing and wireless technologies.[1]. E-commerce offers variety of technologies that user are dealing with in the current era. E-Commerce draws on number of technologies like M-Commerce, E-banking, online retailing. In today's scenario information is also flow through online channels and this automated process in called as Electronic Data Interchange. Digital information flow includes online purchase/selling order, price lists, online payments [2].World Wide Web is used by the e-commerce websites to maintain the integrity of the transactions.

E-commerce requires the following:

- E-Commerce Websites
- B2B services.
- Collection and usage of data for content development
- Marketing and establishing connection with retailers
- Engaging in online retail for launching new products and services

### 1.2. Electronic Data Exchange

Electronic Data Exchange is the latest approach towards communication technology that facilitates information exchange [3]. It is a way through which detailed information is shared among different business and retailers using standardized approach of communication. It allows one company to send information to another company electronically rather than with paper. Data consent methods are used for that purpose.
The UN-recommended UN/EDIFACT is the only international standard and is predominant outside of North America.

The ODETTE standard used within the European industries.

## 2. SECURITY ISSUES

There are huge number of security challenges faced in the E-Commerce. The security features can be categorized under four categories.

- Authentication: It is one of the important security concerns it is related with who has login on your personal account. In other way we can say that it is related with authenticity of the login person.
- Encryption: It deals with the information encoding. The data is converted into a format which is not easily understood by human eyes.
- Integrity: It provides a secure mechanism of the data exchange and manipulation by the authorized user only.
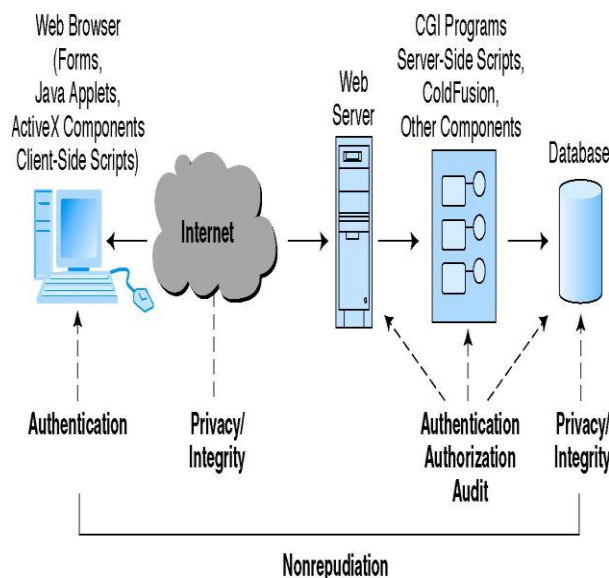- Non-repudiation: Prevention against any one party from reneging on an agreement after the fact



Fig: 1 Security Issues

## 3. SECURITY SOLUTIONS

i.Risk Management
A process for resolving the issues that occur frequently,so that the network can be saved from various attcaks.It has 3 phases:
1.Identification of Risk

2.Calculation of Risk

3.Implementation

ii.Passive Tokens

It contains storage devices that can hold data with a secret code using 2-factor authentification system.

iii.Active Tokens

Electronic devices that generates One Time Passwords required for 2 factor authentication System.

iv.Encryption

The process of jumbling the data that is required for the data to be safe and secure during the transmission of data.
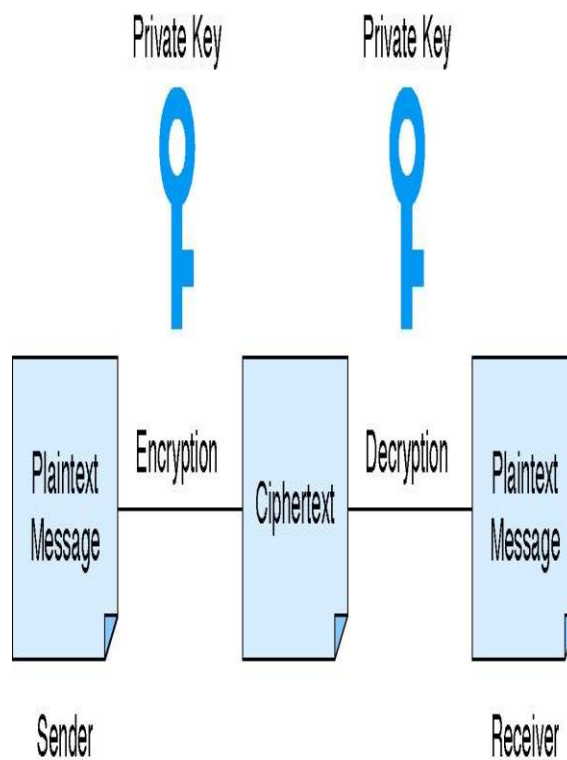


Fig: 2 Security Solution

viii. Digital Signatures

A code that authenticates the identity of the sender.

- Certificate authorities (CAs)
  Third parties that issues digital signatures
- Hash
  Mathematical functions that allows the data to be encrypted using some standard format.
- Smart envelope
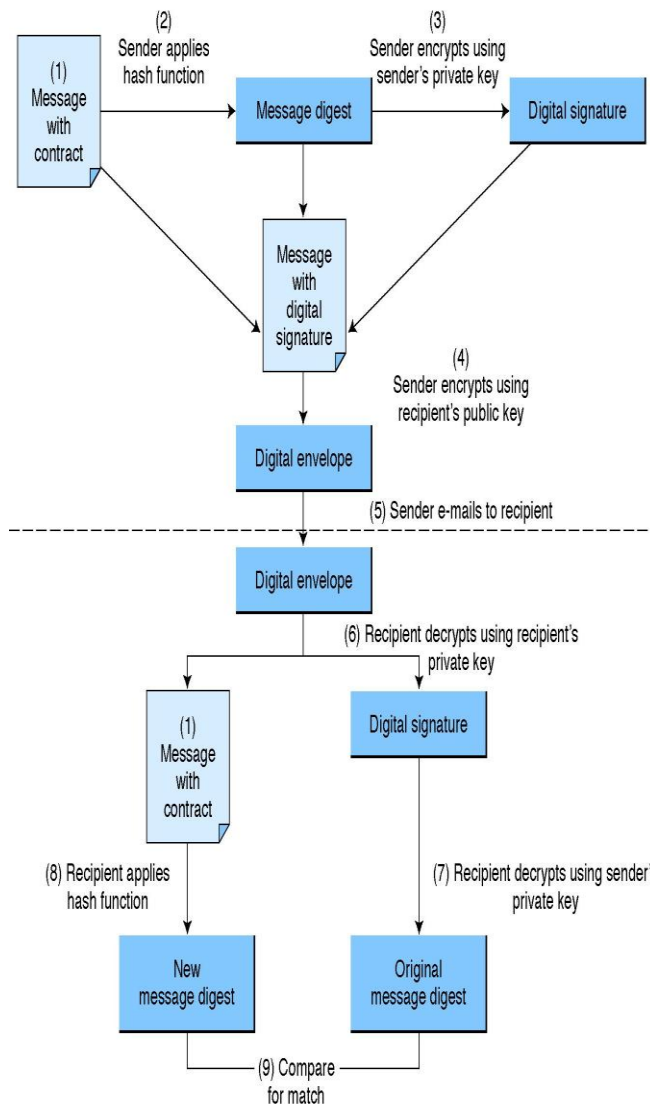  A collection of data that has public key and digital signature in it.

Fig: 3 Digital Signature

## 4. Conclusion

In this paper the review of E-Commerce, EDI, Security Issues and Security solutions is done. E-Commerce is growing very fast now a days and used in every organization. In e-commerce the data is send electronically which is called Electronic Data Interchange (EDI). There are many security issues in EDI which affects the data by hack it modify it and delete it. The secure the data from these issues security solutions are provided which secure the data by encryption method and apply many encryption techniques.

## 5. References

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