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A Study on Information Security Gaps of Electronic Data Interchange (Edi) in Logistics Industry, Sri Lanka

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ABSTRACT

Electronic Data Interchange (EDI) plays a major role in improving business prospects. EDI usage is expected to increase in the immediate future. This high growth in a potentially paperless environment presents a variety of security risks, such as disclosure of messages, tempering with messages, etc. However, a major barrier to the organizational adoption and usage of EDI, is the lack of knowledge and the need of security. This paper presents the findings of the survey which has been conducted among logistics companies in Sri Lanka.

Keywords: Data Security, EDI

1 INTRODUCTION

Electronic Data Interchange (EDI) is a standard communication protocol for system-to-system integration. Companies in a variety of industries use EDI to transmit process and store business information electronically. In response to the need for effective and efficient solutions to handle this way of doing business, Electronic Data Interchange (EDI) offers substantial advantages and opportunities. The EDI approach has been identified as the most important user base of open networks which is to create one of the most fundamental changes in the way that future business is carried out. The use of EDI trading systems is underpinned in many respects by the need for security, and it is the use of commercially reasonable security features for EDI that will bring about its long-term success.

1.1 Case of EDI

There are many different types of EDI and a range of approaches to enable EDI across a trading community. (Direct EDI/ point to point, EDI via VAN/EDI Network, EDI via AS2, EDI via FTP over VPN, SFTP and FTPS, Web EDI, Mobile EDI).

There are many EDI standards available such as ANSI X12, UN/EDIFACT and these standards come with subsets such as VICS and ENCOM. They have been developed to meet the special requirements of certain industries. These subsets define industry-specific documents, data fields, and rules.

There are 3 steps for sending EDI documents.

Step 1: Prepare the documents to be sent - Collect and organize the data from user inputs, databases, data files etc.

Step 2: Translate the documents into EDI format - Feed collected electronic data through translator software to convert internal data format into the EDI standard format.

Step 3: Connect and Transmit EDI documents to business partner

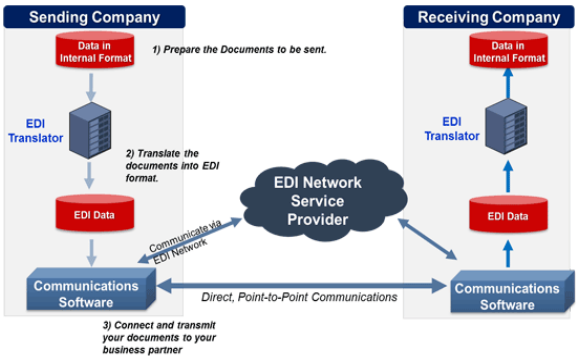

Figure 1: Process of EDI

1.1.1 Logistics Industry of Sri Lanka

Sri Lanka customs has implemented EDI system with logistics industry in 2013. One