Chapter XIV

Security Management in an E-Business Environment

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ABSTRACT

Ensuring security for e-business information exchange is essential as it entails exchange of sensitive information. E-business transactions entail transfer of funds with buyers, sellers and business partners. Vulnerabilities and security incidents in the digital environment require an understanding of technology issues and security challenges for privacy and trust in an online environment. Technological developments over the past few years have made significant contributions to securing the Internet for e-business. This chapter is a discussion of managing security in an e-business organization. It illustrates the differences in security policies for traditional businesses and online businesses, introduces basic security concepts, provides an understanding of security incidents in e-business and briefly explains some basic security tools. More importantly the chapter highlights

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e-business security management by highlighting the need for organization-based security policies, procedures and practices. Trust and privacy issues in e-business have been addressed by highlighting the need for effective management of security in e-business.

INTRODUCTION

The Internet is a worldwide collection of loosely connected networks that are accessible by individual computer hosts in a variety of ways, including gateways, routers, dial-up connections, and Internet service providers. It is a self-regulated network connecting millions of computer networks around the world (Turban, 2002). It is ubiquitous, enabling individuals and organizations worldwide to access the network without regard to national or geographic boundaries or time of day. Therefore, as suggested by Napier et al. (2001), a private computer network system is exposed to potential threats from anywhere on the public network. E-business operates in a networked environment supported by the Internet and other network technologies. Hence e-businesses are in need of stringent security measures for protection of data transmitted, databases, all electronic exchanges of information and other types of cybercrime. A lack of privacy, integrity and confidentiality can cause tremendous damage to an organization and its business, along with its system slowdowns and downtime. It is imperative that e-businesses put in place organizational, architectural and procedural approaches to ensure that the business operates in a secure and reliable environment. E-business security embraces the complete business transaction not only from the IT infrastructure inside an organization’s network, but also outside, connecting all consumers and suppliers. However, “growth of e-commerce has made the Internet an enticing playground for hackers and crackers” (Turban, 2002, p. 544).

Ensuring security for e-business information exchange is essential, as it entails exchange of sensitive information. Technological developments over the past few years have made significant contributions to securing the Internet for e-business. However, challenges remain in this area, and combined with the business and legal requirements security remains a substantial barrier to e-business development.

Security, as defined by Adam et al. (1999), is:

- Measures taken to guard against espionage or sabotage, crime, attack or escape;
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Vanita Yadav (2017). Driving Innovation and Business Success in the Digital Economy (pp. 56-65).
www.igi-global.com/chapter/sustainable-development-challenges-in-developing-countries/173184?camid=4v1a