Chapter 24
Information and Communication Technology Security Network:
A Sure Solution to E-Governance Security Problems

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ABSTRACT

This chapter examines the problems of e-governance data/information security. In order to adequately achieve this objective, the chapter after the introduction, deals with the information and communication technology (ICT) security network, followed by effects of the changing nature of security threats in e-governance. The use of ICT internet security balancing requirements for achieving effective e-governance security network is considered. The chapter observes that strong security for internet transactions (information communication) is one of the last technical hurdles to be overcome in achieving true e-governance, enabling the broadest range of online government services while streamlining bureaucracy and providing efficient alternatives to in-person contact between government agencies and their constituents. The chapter argues that the problems of information security threats, if not tackled effectively, can hinder e-governance implementation success. The use of ICT internet security balancing requirements for achieving effective e-governance security network is recommended.

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INTRODUCTION

Government by nature is an information intensive organization (Dash, 2005). This information is to be produced and consumed by the numerous citizens. Thus there is the need for elaborate system of information management in governance. In view of this a new model of governance whose transactions are based on global space, digital economy for knowledge oriented societies is imperative. The new model of governance is referred to as e-governance. E-governance is the public sector's use of Information and Communication Technologies (ICT) with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective (Schiff, 2006).

Employing ICT in governance involves designing of intranet system capable of producing and disseminating unadulterated information for the citizens who should be involved in representative and participative governance by having access to relevant information and also consuming as well as producing information. The authenticity of this information across the network cannot be ensured if the system security is not seriously considered. Therefore this chapter aims at exploring how ICT security network tools can be used to ensure that the objective of the new system of governance is met; it examines some major ICT contemporaries such as intranet and internet, intranet and internet security issues and intranet and internet security threats after the introduction. This is followed by effect of the changing nature of security network threats in e-governance and the use of ICT internet security balancing requirement in achieving effective e-governance security network.

BACKGROUND

The transforming power of information and communication technologies (ICTs), particularly the internet, continues to permeate and remake various sectors of the society. The field of government is not exempted from the wave of change. This has given rise to innovation like e-governance or e-government. Both terms are used interchangeably in this chapter. E-government has the capacity to improve the performance of public institutions and make them more transparent and responsive; facilitate strategic connections in government by creating joined-up administrations in which users can access information and services via portals or on-stop-shops, and empower civil society organizations (CSOs) and citizens by making knowledge and other resources more directly accessible (Coleman, 2005).

Bank and Back (2001) opined that of e-government and e-governance, e-government is the narrower term, referring to a transformation of the business of government (processes, operations, and transactions) driven primarily by ICT. Transformation is both external (through simplified, enhanced government–client interactions via only services, no longer limited by traditional confines of fixed office hours and physical office space) and internal (through streamlined government administration processes for greater efficiency and effectiveness). On the other hand,, is a broader term that includes transformation e-governance on at least four levels. Firstly, it involves the transformation of the business of government. Secondly, it involves a transformation in the operational definitions of the principles upon which governance is founded, shifting towards increased participation, openers, transparency, and communication. (Schiavo-Ocampo & Sundaram, 2001). Thirdly, it involves a transformation in the interactions between government and its (internal and external) clients classified as government-to-citizen, government-to-business, government to its internal employee clients, government to other government institutional clients, and citizen-to-citizen (Stigilitz, J., Orszag, P., and Orszag, J. (2002); Cseteny, (2000); Heeks, (2001)). Fourthly, e-governance involves a transformation of society itself, through the emergence of so-called "e-societies", made up of networks of relationships