

# Chapter II

## E-Government Interoperability: Frameworks for Aligned Development

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### ABSTRACT

*The mobilization of electronic information across government organizations has the potential of modernizing and transforming information exchanges. The current information exchanges are, however, often inefficient and error-prone, causing interoperability problems for electronic government. Based on a literature review, this chapter presents some of the many frameworks for aligned development to improve e-government interoperability.*

### INTRODUCTION

Alignment is the adjustment of an object such as a system, a procedure or a process in relation with other objects so that they work better together. For example, strategic alignment refers to business structure and information technology fit in relation to business strategy and external environment. When alignment is attained, then

an organization improves its relative performance as compared to other organizations.

The concept of alignment was originally based on the fit in the context of organizational psychology and became an important concept in the management literature. The construct of alignment is difficult to develop, due to the ambiguity and complexity of management and organizational alignment. There have been a number of integrated

conceptual frameworks in the recent decades attempting to understand and provide insights into the business-IT alignment complexity. Examples are Chan et al. (1997), Reich and Benbasat (2000), and Sabherwal and Chan (2001).

As illustrated in this chapter, there is no single framework for aligned interoperability development that will solve all interoperability problems. Rather, a combination of frameworks will be appropriate when trying to solve interoperability problems. Solutions to interoperability challenges are dependent on the situation, requiring a contingent approach to aligned development.

The purpose of this chapter is to illustrate the variety of frameworks available for e-government interoperability. Interoperability is referring to a property of diverse systems and organizations enabling them to work together (Cabinet Office, 2005a; Government CIO, 2007). Interoperability is the ability of government organizations to share information and integrate information and business processes by use of common standards (State Services Commission, 2007).

Interoperability is the ability of ICT systems to communicate, interpret and interchange data in a meaningful way (Archmann and Kudlacek, 2008). Interoperability is the ability of government organizations to share and integrate information by using common standards. Successful service innovation and multi-channel service delivery depend on strategies, policies and architectures that allow data, IT systems, business processes and delivery channels to operate, so that services can be properly integrated. If channels and back office processes are integrated, different channels can complement each other, improving the quality of both services and the delivery to government and citizens simultaneously. The ideal is to create an environment in which data, systems and processes are fully integrated and channels become interoperable instead of merely coexisting (UN, 2008).

## **1. CROSS-ORGANIZATIONAL BACK-OFFICE INTEGRATION**

In electronic government, a distinction can be made between the front and back offices of public service delivery organizations. The interaction between citizens and civil servants occurs in the front office, while in the back office, the assessment of inquiries as well as the supporting registration activities take place. Back office activities normally require the exchange of information between the back offices of different agencies. However, back-office co-operation is found to be a serious problem (Bekkers, 2007).

Bekkers (2007) phrased the question: Given the political nature of back-office integration, should cross-organizational back-office integration be seen as a command and control challenge or a process of management challenge? He argues that comparative case study research has primarily shown that integration is the outcome of a process in which offices have been able to create a shared understanding about the necessity of integration and in which conflicting rationalities, with their own core values, internal logic and legitimacy, have to be weighed against each other. Integration is a goal-searching, incremental process, which should anticipate a changing political agenda in order to gain support.

Bekkers (2007) found that understanding is reached through the ongoing recognition of the interdependencies among back-offices, and as a result of a focus on the content of the problem and not on jurisdictions and costs. Trust and political and legal pressure are the lubricants that facilitate this process.

## **2. CROSS-ORGANIZATIONAL BUSINESS PROCESSES**

Increasing interconnection of organizations is a global trend. Independent organizational units or

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