Chapter I
A Methodology for Government Transformation with Enterprise Architecture

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ABSTRACT

*Countries across the world are pushing their frontiers in governance in the move to information economy, and governments play a pivotal role in this transformation. These governments employ modern information and communication technologies to serve the citizens and businesses better. Raising the effectiveness and quality of government services is not only a matter of leading edge technologies; it also involves visionary leadership, clear objectives and sound execution mechanism. The role of Enterprise Architecture in shaping E-Government programmes cannot be overstated. Within the context of Singapore's e-government initiative, this chapter describes the **M**ethodology for **AG**ency **ENT**erprise **A**rchitecture (MAGENTA), a rigorous, disciplined and structured methodology for development of agency enterprise architectures that enables agencies to align to and fully support the government's transformation objectives and outcomes. Mechanisms for agencies to align to the overall Government Enterprise Architecture are detailed. The chapter concludes with a set of recommendations for future enhancements and research.*

INTRODUCTION

Since early 1990s, governments across the world have initiated movements to exploit and utilize information and communication technologies (ICT) to improve public sector service delivery. This is widely known as electronic government (e-government). According to the World Bank e-government refers to 'the use by government agencies of information technologies (IT) that have the ability to transform relations with the citizens, businesses and other arms of the government.' These technologies can facilitate better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information and more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth and cost reduction (The World Bank, 2003).

The adoption of e-government is usually anchored around government modernization programmes. The objectives of such modernization programmes are primarily to improve the way government services to citizens and businesses are delivered coupled with enhanced public sector efficiency. These can be summarized in three words – effectiveness, efficiency and agility (responsiveness). These are achieved through a combination of organizational and IT transformation mechanisms in which governance, management, division of labour, work processes and competencies are all impacted.

This chapter describes the development and implementation of government transformation programmes pertaining specifically to the role of Government Enterprise Architecture (GEA) and its role in e-government activities. The chapter starts with a discussion of benefits and challenges that countries around the world face in embracing e-government. The role of good e-government strategies in addressing key challenges and deriving maximum benefits are also briefly described.

The chapter then examines the current e-government maturity models (stage models). The purpose of this section is to provide a common frame of reference in assessing e-government programmes. This is important as the extent of benefits derived through e-government driven modernization programmes is directly correlated to their maturity levels (Government of Western Australia, 2004; Baum and Di Maio, 2000).

The chapter then identifies and elaborates the role of Enterprise Architecture (EA) in addressing e-government challenges. The manner in which EA supports the modernization programmes by facilitating the governments to move towards higher levels of e-government maturity is discussed (United States Federal Enterprise Architecture Programme Management Office, 2006; Government of British Columbia, 2004). A general mapping of e-government stage models and EA maturity is also presented to demonstrate the high degree of dependency between the two (Kreizman, Baum and Fraga, 2003).

Following the general discussion, the chapter continues to elaborate the aforementioned areas within the context of Singapore. This starts with a brief description of Singapore's e-government programmes and its evolution over the years (Tan and Gan, 2007). The evolution is mapped to earlier described e-government maturity models. The next section elaborates the EA methodology, called the **M**ethodology for **AG**ency **ENT**erprise **A**rchitecture (MAGENTA) that has been developed for the Singapore Government jointly by the National University of Singapore (NUS) and the Infocomm Development Authority of Singapore (IDA). The contribution of the EA methodology to support government transformation is discussed in detail. This is a first-hand description as the author led the development of MAGENTA (Saha, 2007a). However, any analysis presented in this chapter represents the author's own opinion.

Finally the chapter concludes with the identification of some plausible areas for future enhancements and research in line with emerging trends.

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