

# Chapter XVIII

## Government Enterprise Architectures: Enabling the Alignment of Business Processes and Information Systems

**Nigel Martin**

*The Australian National University, Australia*

**Shirley Gregor**

*The Australian National University, Australia*

**Dennis Hart**

*The Australian National University, Australia*

### ABSTRACT

*This chapter describes the development and use of government enterprise architectures for the framing and alignment of the core business processes and enabling information systems at the Australian Bureau of Statistics (ABS) and the Centrelink Social Services agency. The chapter focuses on the construction and ongoing maintenance of public enterprise architectures that enable the alignment condition. An established research model has been used to guide the analysis and explication of the government business processes, enabling systems and architectures, and the resulting agency alignment. While the discussion acknowledges the existence of other formal and informal enablers of alignment (such as strategic planning or management support), this chapter concentrates on the enterprise architecture enabler. The functionally integrated government business processes and information systems that are established within the instantiated enterprise architecture are examined. The agencies' performance data reflects two public organizations that are closely aligned and have achieved upper benchmarked outcomes and recognition awards. The agencies' business processes and architectural practices conform to established theoretical frameworks.*

## INTRODUCTION

Since 1985 the Australian federal government has been directing public agencies to ensure that the business processes associated with service delivery are closely aligned and integrated with the enabling information systems and infrastructure. The introduction of Program Management and Budgeting (PMB) called for federal government organizations to align resource inputs, systems and processes with output results and performance in a framework designed to drive accountability, efficiency and effectiveness (Commonwealth of Australia, 1997). The PMB initiative represents the government's first attempt to draw together underlying government business processes with the supporting information systems in a coherent and performance enhancing fashion.

In 1997 the Australian government further developed these accountability and efficiency driven arrangements, and installed a new Outcomes-Outputs framework in 1999-2000 (Commonwealth of Australia, 2007b). The framework was intended to bring a sharper focus to the use of government resources, and the associated output of products and services. Importantly, public agencies were requested to identify the assets and resources under their control, and the specific service and product outputs that they would produce. This requirement formed part of the organizational regime that supported the linkage between agency resources and performance, management of growing complexities, and the movement of vast information and data stores.

These public efficiency initiatives had a profound impact on agencies, such as the Australian Bureau of Statistics (ABS) and Centrelink, which provide core government outputs of public services and products. The ABS is Australia's official statistical organization that provides over 600 different information products and services that assist and promote informed decision-making, research and discussion. Centrelink is Australia's primary social services agency, serving over

6.5 million customers, processing over 5 billion electronic transactions each year, and operating with an annual budget that exceeds A\$63 billion (Commonwealth of Australia, 2006b; Martin & Gregor, 2006). Given the inherent portfolio resource constraints, both agencies are focused on delivering their products and services in the most efficient and effective manner. The PMB and Outcomes-Outputs frameworks has forced the two agencies to examine the resources at their disposal, and how best to align and integrate those resources to meet their performance outcomes.

The aim of this chapter is to examine and analyze the agencies' enterprise architecture activities in order to develop an understanding of how the architecture can enable the alignment of the business processes and information systems. The ABS and Centrelink case organizations were selected for their exemplary public sector architectural practices, and continuing record of business and technical systems integration in the pursuit of quality public products and services delivery. Both organizations use a highly centralized architectural approach that supports the creation of integrated business and technically oriented artifacts (eg, business processes, technical systems infrastructure, and applications architectures). However, as a point of difference, the two agencies use different architectural frameworks and methods for the development of their respective enterprise architectures (ie, an internally developed ABS architecture method and the Zachman architecture framework for Centrelink). The research presented in this chapter adopts the internationally accepted definition of architecture as a description (model) of the basic arrangement and connectivity of parts of a system (either a physical or a conceptual object or entity) (International Standards Organization, 2000).

The agencies' data and experiences presented in this chapter were gathered as part of a larger doctoral study on the use of enterprise architectures in government organizations (Martin, 2005). The study used a qualitative research method which

27 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/government-enterprise-architectures/4833](http://www.igi-global.com/chapter/government-enterprise-architectures/4833)

## Related Content

---

### Conventional and Non-Conventional Data Modeling

Maria Salete Marcon Gomes Vazand Lucélia de Souza (2013). *Enterprise Business Modeling, Optimization Techniques, and Flexible Information Systems* (pp. 141-158).

[www.irma-international.org/chapter/conventional-non-conventional-data-modeling/77966](http://www.irma-international.org/chapter/conventional-non-conventional-data-modeling/77966)

### Data Warehouse Maintenance, Evolution and Versioning

Johann Ederand Karl Wiggisser (2011). *Enterprise Information Systems: Concepts, Methodologies, Tools and Applications* (pp. 566-583).

[www.irma-international.org/chapter/data-warehouse-maintenance-evolution-versioning/48566](http://www.irma-international.org/chapter/data-warehouse-maintenance-evolution-versioning/48566)

### Diffusion of Enterprise Resource Planning Systems in Taiwan: Influence Sources and the Y2K Effect

Hsiu-Hua Chang, Chun-Po Yinand Huey-Wen Chou (2008). *International Journal of Enterprise Information Systems* (pp. 34-47).

[www.irma-international.org/article/diffusion-enterprise-resource-planning-systems/2134](http://www.irma-international.org/article/diffusion-enterprise-resource-planning-systems/2134)

### Unleashing the Potential of SCM: The Adoption of ERP in Large Danish Enterprises

Charles Møller (2007). *Modelling and Analysis of Enterprise Information Systems* (pp. 167-182).

[www.irma-international.org/chapter/unleashing-potential-scm/26848](http://www.irma-international.org/chapter/unleashing-potential-scm/26848)

### Data Integration Capability Evaluation of ERP Systems: A Construction Industry Perspective

Umit Isikdag, Jason Underwood, Murat Kuruogluand Utku Acikalin (2013). *International Journal of Enterprise Information Systems* (pp. 113-129).

[www.irma-international.org/article/data-integration-capability-evaluation-of-erp-systems/79147](http://www.irma-international.org/article/data-integration-capability-evaluation-of-erp-systems/79147)