Chapter 7
Towards Whole-of-Government EA with TOGAF and SOA

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ABSTRACT

Governments around the world have acknowledged the complexity associated with public sector transformation and have initiated enterprise architecture programs to help manage those complexities and enable the desired strategic transformation. Along with the EA program, governments have adopted some sort of EA framework and/or Service Oriented Architecture (SOA) individually or in integrated form. However, the majority of those EA programs are of limited scope in both EA and SOA practices, and are not comprehensive enough to deal with and manage the associated complexities. As a result, those EA programs suffer from the inability to leverage EA and SOA benefits across agencies or jurisdictional boundaries. Currently, the majority of government agencies use EA and SOA within the agency boundaries to deliver solutions by focusing on technical factors that define detailed blueprints of systems, data, and technology. What is needed rather is effective Whole-of-Government Enterprise Architecture (EA) that facilitates the alignment of individual agencies' visions with the Whole-of-Government vision to enable sustainable government transformation. Research has pointed out that the Whole-of-Government EA is currently at the conceptual level and still has a long way to go to reach the maturity level required for value realization. This chapter first gives a brief analysis of the current state of enterprise architecture in governments to highlight the current challenges. It then discusses the various scopes of Whole-of-Government EA and recommends the plausible EA approach to enable sustainable connected government based on The Open Group Architecture Framework (TOGAF) and SOA.

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BRIEF ANALYSIS OF THE CURRENT STATE OF WHOLE-OF-GOVERNMENT EA

This section presents a brief analysis of the current state of Enterprise Architecture and Service Oriented Architecture initiatives in governments by highlighting the successes and challenges associated with the practice.

Maturity of Whole-of-Government EA

Enterprise architecture has gained attention as a tool for planning and managing government transformations to enable sustainable connected government. As a result many countries around the world have initiated Enterprise Architecture programs to help manage government transformations. However, EA programs in most of the countries are of limited scope. According to a report on government enterprise architecture work in 15 countries (Liimatainen, et al., 2007), at the time of the report not all countries had national (Whole-of-Government) enterprise architecture programs. The report also pointed out the lack of holistic view on collaboration between different agencies. Saha (2010a), in his qualitative analysis report on the impact of EA on connected government, clearly states the lack of Whole-of-Government enterprise architecture context in 9 countries surveyed.

This fact is also evident from US General Accounting Office report on EA in United States (Hite, 2004). Back then (in 2004) the report pointed out that the government wide EA management practice was limited. Various agencies were at different levels of maturity, and only a few agencies were successfully using EA while others were struggling. In another report, the US General Accounting Office (Hite, 2003) states the various agencies have identified the lack of high level management support as one of the major obstacles for EA practice in agencies. The observation that government wide EA was limited (and that there was a lack of agency leadership in support of EA practice) indicates that there was no high level Whole-of-Government EA to guide and support the various agencies. According to recent report (Dodaro, 2011), these issues are still a challenge to government agencies enterprise architecture practice. Dodaro (2011) states that "… the real value in the federal government from developing and using enterprise architectures remains largely unrealized" (p. 14). With such a lack of high-level Whole-of-Government EA context, a wide spectrum of EA maturity differences in agencies can be a major limiting factor for collaboration and interoperability between agencies.

Most recent Gartner research (Bittinger, 2011) points out that even though EA has been recognized as an essential tool for driving sustainable government transformation, much of EA efforts have not gone beyond a mere compliance exercise. The same Gartner report also pointed out that there are few examples of the successful use of EA across agency boundaries. What this implies is that government EA programs are active only in the agency level and that those agency level EA programs are independently operated without or with minimal cross agency collaboration. The results from these reports clearly indicate that the Whole-of-Government EA is lacking or immature.

Effectiveness of Tools Developed by Governments without Whole-of-Government EA Framework

One may ask a question why agencies in United States struggle with their EA practice while they have support from Office of Management and Budget (OMB), which developed and promote Federal Enterprise Architecture Framework (FEAF) for that purpose.

While FEAF is one of the useful frameworks out there, its use did not equally move the various agencies to the expected maturity levels. The reason is that FEAF does not have all that is required to define and manage government wide