

Chapter 19

Assessing the Value of Investments in Government Interoperability

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ABSTRACT

Government investments in enhancing the interoperability of ICT systems have the potential to improve services and help governments respond to the diverse and often incompatible needs and interests of individual citizens, organizations, and society at large. These diverse needs and interests encompass a broad range of value propositions and demands that can seldom be met by single programs or assessed by simple metrics. The diversity of stakeholder needs and the complexity inherent in interoperable systems for connected government require an architecture that is up to the task. Such an architecture must include the reference models and components that can accommodate and integrate large portfolios of applications and support multiple kinds of performance assessments. The value propositions that underlie the architecture's performance assessment or reference model are fundamental. The propositions must be broad enough to span the full scope of the government program's goals, a substantial challenge. In recognition of that challenge, this chapter puts forward two perspectives for assessing the value of interoperable ICT investments, incorporating outcomes beyond financial metrics. The first is the network value approach to assessment of investments in interoperable ICT systems for government. The second is the public value framework developed by the Center for Technology in Government, which expands on the network value approach to include a broader range of public value outcomes. These approaches are illustrated in two case studies: the I-Choose project designed to produce interoperable government and private sector data about a specific agricultural market and the government of Colombia's interoperability efforts with expanded metrics based on the expansion of interoperability networks.

DOI: 10.4018/978-1-4666-1824-4.ch019

INTRODUCTION

Assessing the value expected from increased interoperability in government presents policy makers, managers, and analysts with a difficult and multifaceted problem. The high-level goal of increasing government interoperability is to better serve the citizens and society at large. The demands and interests of citizens are diverse and often incompatible, reflecting the complexity of modern societies. Thus, there is no simple value proposition. Methods to assess returns on investments in ICT interoperability should therefore incorporate a broad sense of public value that goes well beyond the traditional financial or program performance metrics. Such a broad value proposition is necessary to direct decision-makers' attention to the full range of benefits possible from increased interoperability, and thereby improve the design and implementation of enhanced interoperability into existing and new systems.

This chapter presents a perspective on assessing the value of interoperability that includes a broad public value proposition. Such a value proposition reflects the complexity of an enterprise architecture that encompasses the range of applications needed for interoperability in a connected government context. This chapter outlines strategies and recommendations for policy makers to enhance the assessment of government investments in ICTs to include returns to both the direct and indirect beneficiaries of government activities, and to society at large through such outcomes as gains in per capita GDP.

The chapter presents two approaches to assessing value that go beyond traditional Return On Investment (ROI) analyses. The first is an analysis of societal-level economic returns from expanding government network interoperability based on a review of a white paper, "The Economic Impact of Interoperability" (Madrid, 2008). The second, based on the public value framework developed by the Center for Technology in Government (CTG),

looks at a broad set of values that governments can potentially deliver through interoperable ICT investments to include financial, political, social, strategic, ideological, quality of life, and stewardship. With these examples, this chapter illustrates how a more comprehensive understanding of the values of interoperable ICT investment can yield more comprehensive and effective justification to support large portfolios of applications and investments in connected government.

The value of increased interoperability can accrue from a great variety of ICT investments and government programs. The chapter briefly addresses the general idea of interoperability to set the context for the specific cases and assessment approaches to be presented. This context setting discussion includes some attention to current shortcomings and inadequacies of the typical financial ROI measurement for assessing the value of government interoperability-related ICT projects. The discussion includes particular attention to the more macroeconomic returns on government ICT investments in terms of increases in economic activity as reflected in national Gross Domestic Product (GDP). Section 4 describes the public value framework for assessing government interoperability projects that consider broader stakeholders' perspectives. Finally, section 5 illustrates the application of these approaches to two cases. The first is a proposed data interoperability framework to support the provision of a wide range of information for sustainable agricultural products, initially focused on fair trade coffee. This initiative, known as I-Choose, will aggregate information on fair trade certification above the national level in the areas of product classifications and government standards, government labeling schemes, and third party certification systems. The second case will focus on government ICTs in Colombia, where the government has been able to provide data on the economic impact of government interoperability efforts.

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