

# Chapter 4

## Interoperability in E–Government: Select Aspects of Personal Information Integration

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### ABSTRACT

*Integration and interoperability are critical issues for successful development of one-stop portal for the government. This issue involves integration of information among departments of government both vertically and horizontally. The following paper focuses on Personal Information Integration of citizens which is one of the aspects for achieving interoperability within the departments of government in India. Various challenges, benefits, and key issues of sharing personal information for one-stop portal are discussed. Potential solutions to overcome the challenges are detailed in the paper. In-depth research conducted through a set of interviews with high-ranking government officials forms the basis for the chapter.*

### INTRODUCTION

One of the key objectives under the e-government agenda is to achieve a one-stop government portal (Gupta et. al, 2005) and (Dias and Rafael, 2007) so that the citizens, businesses and other authorities

have 24 hours access to public services from their home, their offices or even on the move. India has announced development of an India portal under National E-governance Plan approved in 2006. The objective is to integrate and provide access to government services to the citizens (NeGP, 2007). The portal will not only be a mirror for the

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Government and its departments but will also be very helpful and easily accessible for the citizens.

At present most of the Government departments; subordinate offices and government funded autonomous departments have their own websites but none of them have achieved a one-stop portal. The reason behind this is the lack of integration and interoperability of information among different departments. The term Interoperability has been defined by different organizations and authors: The European Commission (2003) has defined interoperability as “the means by which the inter-linking of systems, information and ways of working, whether within or between administrations, nationally or across Europe, or with the enterprise sector, occurs”. Interoperability is the ability of government organizations to share information and integrate information and business processes by use of common standards and work practices (State Services Commission, 2007). According to the Government Interoperability Framework (e-GIF, 2004) and Government CIO (2007), if the coherent exchange of information and services between systems is achieved then the systems can be regarded as truly interoperable. When information and services are provided to and accepted between systems and organizations, they are said to inter-operate. Further, Scholl and Klischewski (2007) define integration as “the forming of a (temporary or permanent) larger unit of government entities for the purpose of merging processes [and systems] and sharing information”.

Economic benefits of interoperability result in lower transaction costs typically utilizing standardized processes. Yet, most integration and interoperation efforts face serious challenges and limitations. Exchanges of information and services are fragmented and complex, plagued by technical and organizational problems (Gouscos et al., 2007).

A distinction should be made between interoperability and integration. Integration is the forming of a larger unit of government entities, temporary or permanent, for the purpose of merging pro-

cesses and/or sharing information. Interoperation in e-Government occurs whenever independent or heterogeneous information systems or their components controlled by different jurisdictions, administrations, or external partners work together (efficiently and effectively) in a predefined and agreed-upon fashion. E-Government interoperability is the technical capability for e-Government interoperation (Scholl & Klischewski, 2007).

For interoperability both horizontal and vertical integration forms the basis. Integration can be defined as “the forming of a (temporary or permanent) larger unit of government entities for the purpose of merging processes [and systems] and sharing information” (Klischewski & Scholl, 2006). Integration can be approached in various manners and at various levels (Vernadat, 1996) for example: (i) physical integration (computer networks), ii) application integration (integration of software applications and database systems) and (iii) business integration (co-ordination of functions that manage, control and monitor business processes).

As shown in Figure 1, there are projects going on in India on integrating the e-government services at national level, state level as well as local level (Bhatnagar et. al, 2007).

- **At national level:** MCA 21, Income Tax online and Customs on-line are working on providing a one-stop portal for their respective departments. The current objective of these projects is to integrate their departments vertically. This will help the citizens to use the services at one go.
- **At state level (IIM-A, 2007):** Property registration (CARD, KAVERI, SARITA); Bill payment (eSeva: One stop shop for many services in Andhra Pradesh have been operational for three years); Land records (BHOOMI: Karnataka); eProcurement (Online tendering in Andhra Pradesh); SmartGov (AP); Khajane (Computerization of treasuries in Karnataka). Achieving one-

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