Chapter XIV
Extending Collaborative Business Model with Mobility and its Implementation in the Medical Tourism Industry

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ABSTRACT

This chapter discusses how to extend the collaborative business process model with mobility and how to implement such a model in the "Medical Tourism" industry. The implementation discussion in this chapter is based within the context of the booming Indian Medical Tourism industry that is growing rapidly with reported annual growth rate of up to 30% over past few years. The collaboration between various available services like lodging, transport, and hospital through separate domains, in order to provide a unified service to the potential client, is considered in this chapter. The resultant architecture can be considered as a Service-Oriented Architecture (SOA) which can provide immense value during implementation.

INTRODUCTION

Medical Tourism provides a cost effective private medical care in collaboration with the travel industry for patients needing medical treatment in a geographical region separate to where they reside. Medical Tourism (MT) is an integrated collaborative approach that derives services from both healthcare and travel/tourism domains. The reason for the growth of medical tourism is that there are cheaper and good quality medical services available in one region and there are patients waiting in a queue in another geographical region. The easier and sensible solution is for the patients waiting in a queue for a medical procedure to travel to another geographical region – resulting in what can be called Medical Tourism (MT). The market of Medical Tourism depends on awareness and application of significant issues such as social diversities, consumer benefits, branding of products, legal framework, infrastructure, target markets, the actual product and communication channels (Danell & Mugomba, 2007). The implementation of Medical

Tourism requires the bringing together of many different types of services under one roof. The technical model for such collaboration and its implementation is the Collaborative Business Model (CBM) that has been discussed in its core form by Ghanbary (2008).

Collaborative Business Model, as the name suggests, brings together separate business services and enables them to collaborate with each other in a technology neutral manner. There is a constant demand of services by business that are usually derived from disparate sources and which can satisfy multiple needs of the users. Usually, technical services, emanating out of technical applications, are executed under various technical domains and environment like .NET, and Java. Collaborative Business Model (CBM) helps in bringing these types of services by enabling them to "talk" or transact with each other and make them available and accessible.

Although different businesses may by physically at a great distance, their applications are now able to communicate and transact with each other over the Internet. The Collaborative Business Model brings this communication ability of various applications that also encompass the needs of the customers and their further dependencies. The needs of the customers to be able to perform their desired activities through a single portal and preferably through minimal clicks of the user interfaces is on the rise. Customers would prefer not to waste their money and time by searching through various service providers themselves and, instead, would want it all under one umbrella (or portal). This is where Collaborative Business Model (CBM) comes into picture.

The CBM has a great potential for direct application in the aforementioned Medical Tourism domain. A particular individual residing in one country wants to search for and utilize medical services which are cheaper and easily available in some other country. There are a lot of services that would be required by such an individual and which will be included in Medical Tourism. For example, this potential patient would require – apart from the actual medical procedure – numerous other services like flight service, taxi service, lodging and boarding service, insurance service, medical claim, medicines, special treatment, billing services, etc. All the above mentioned services are belonging to different businesses. Through the application of CBM, there is an opportunity to bring together all these required services together. The need for a web based solution that also includes a mobile element which can provide details of all types of ser-

vices is imminent. The concept of Medical Tourism can thus be applied using CBM and it can be made online or mobile based so that we can achieve the best services at a cheaper rate and easily.

UNDERSTANDING THE COLLABORATIVE BUSINESS MODEL

According to Ghanbary (2008), CBM has the underlying technology of web services (WS). WS provide an easily modeled and implemented technology to bring together applications and services that belong to different organizations and on different technical platforms. A Web Service enables exposing a number of methods that provide the functionalities that can be used by one or more applications, regardless of operating systems, programming languages, and hardware platforms used to develop them.

As shown in Figure 1, Collaborative Business Model comprises the following elements:-

1. **XML:** XML (Extensible Markup Language) is used to exchange the data over the Internet. XML provides an easy tag-based suite of data and their descriptions that can be used extensively in order to retrieve and store the metadata.
2. **SOAP:** Simple Object Access Protocol. This protocol provides a wrapper on top of XML that then is used in order to make applications communicate with each other by accessing the required contents from one another. XML/SOAP helps to make the interaction between the various types of businesses.
3. **Web Service Description Language (WSDL):** WSDL is used to define know the services which are exposed by a web service. The Web Service Description Language helps to know the methods and ways of accessing the various services which would be made available through web.
4. **Universal Description, Discovery and Integration (UDDI):** It provides a standard mechanism to register and discover a web service. The web service provider registers the web service in the UDDI directory, which contains pointers to the Web Service and the WSDL document for the Web Service.. Thus UDDI is the component which helps to locate and reuse the web services (Lingarchani, 2007).

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