



## **Chapter X**

# **From ASP to Web Services: Identifying Key Performance Areas and Indicators for Healthcare**

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## **Abstract**

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*Value creation from e-business for customers in healthcare is an important topic in academic and practitioner circles. This chapter reports the findings from a two-year research study, which found that disappointing results from the much-hyped application service provider (ASP) business model is currently being replaced by perceived new opportunities from Web services. Yet past failings from ASP do not guarantee future success with Web services models, particularly as evidence shows that accruing value-added benefits from e-business initiatives is often fraught with difficulty. Healthcare is no exception, and is likely to pose more problems given the complexity of the organizational structures, processes, procedures, and activities within this vertical sector. This research study*

*calls for a more rigorous approach in identifying and evaluating key performance areas and indicators from new e-business initiatives involving emerging technologies and platforms such as Web services. Yet the measures and metrics used for healthcare may differ from those adopted in other sectors. Healthcare professionals will therefore need to develop context specific key performance areas (KPs) and KPIs, and caution against accepting at "face value" the value proposition devised by Web service providers.*

## Introduction

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The process of healthcare management modernization is maturing in Europe, North America, and in other developed countries. This has resulted to an exponential increase in demand for rapid business process execution, more accurate and timely information, and additional automated information systems (IS). Interest in Web services is emerging in many different guises. As subset of e-business, Web services offer customers software as a service. The principle of operation is similar to the application service provision (ASP) model, priced on a pay-as-you-go, utility model of business computing (Currie, Desai, & Khan, 2004). Against a background of disappointing results from ASP (Hagel, 2002), Web services are designed to resolve problems of poor integration (interoperability) between software applications and low customer satisfaction. This research study treats the Web services business model as the main unit of analysis and seeks to identify how value is created for customers (Perseid, 2003; Sleeper & Robins, 2001). Despite the promises of vendors, Web services have fared poorly in terms of attracting a large client base (CBDI, 2003). The reasons for this are both technical and commercial (Hagel, 2002). The fallout from the ASP market provides some important lessons for vendors offering software as a service, and for e-business models more generally.

This chapter presents the findings from a two-year research that examines both the supply side and customer side of deploying, hosting, and integrating e-business models, focussing primarily on Web services in the UK health sector. The chapter is structured into three main areas. It begins with a discussion of ASP taxonomies and argues that the various templates for ASP were essentially flawed for a combination of technical or business reasons. Within the healthcare sector, technology vendors failed to develop e-business models that

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