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Chapter IX

Privacy and Security: Where do they fit into the Enterprise Architecture Framework?

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Abstract

Enterprise Architecture is a relatively new concept that has been adopted by large organizations for legal, economic, and strategic reasons. It has become a critical component of an overall IT governance program to provide structure and documentation to describe the business processes, information flows, technical infrastructure, and organizational management of an information technology organization. Many different enterprise architecture frameworks have emerged over the past 10 years. Two of the most widely used enterprise architecture frameworks (the Zachman Framework and the Federal Enterprise Architecture Framework) are described and their ability to meet the security and privacy needs of an organization is discussed.

Introduction

Change is constant; for many organizations it has become the business norm. Companies seek to reinvent themselves or must prove that they can adapt to remain competitive. The ability to react quickly is a critical component of many companies' business strategy. As a result, the need for organizations' information technology to be defined in a standardized structure has become increasingly critical. Over the past 10 years there has been a greater emphasis on standardization of information technology services to enable organizations to better manage their technology resources as well as their portfolio of requests for changes of those IT resources. Numerous **enterprise architecture frameworks** have been developed to help organizations document, describe, and manage their information technology environment and their relationship to the business that it supports. Several of these have been consolidated and have emerged as the *frameworks of choice* amongst many organizations.

Information technology governance has heightened the growing need to ensure that technology resources are secure and to adequately protect the privacy of the vast amounts of information that they contain. Two of the most widely used enterprise architecture frameworks are critically analyzed to examine the strength of their security framework. The **Zachman framework** and the **Federal Architecture Framework** are evaluated to analyze the extent to which they provide a framework to satisfy the privacy and security needs of an organization.

Numerous other frameworks exist. Some are highly specialized and others are designed to be adapted by the organization that is using them. Some, such as the Department of Defense Architecture Framework (DoDAF) specifically identify privacy and security guidelines and standards that must be adhered to.

This chapter begins by providing a definition of enterprise architecture. It then describes the Zachman and Federal Enterprise Architecture Frameworks. These were chosen because they are two of the most widely adopted enterprise architecture frameworks and because they have a sharp contrast in their approach. The chapter then concludes with a critical analysis of how well each framework meets the privacy and security needs of their users.

Enterprise Architecture

Bernard (2004) defines enterprise architecture as a management program and a documentation method that is combined to perform an actionable and coordinated