# Chapter LXXIII
# Integrative Information Systems Architecture:
## Document & Content Management

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## INTRODUCTION

### Purpose

This chapter discusses the benefits of managing business documents and Web content within the context of an integrative information systems architecture. This architecture incorporates database management, document and Web content management, integrated scanning/imaging, workflow and capabilities for integration with other technologies.

### Business Context

The ubiquitous use of digital content (such as office documents, email and Web content) for business decision-making makes it imperative that adequate systems are in place to implement management controls over digital content repositories. The traditional approach to managing digital content has been for enterprises to store it in folder structures on file or Web servers. The content files stored within folders are relatively unmanaged, as there are often inadequate classification and indexing structures (taxonomies

and metadata), no adequate version control capabilities and no mechanisms for managing the complex relationships between digital content. These types of relationships include embedded or linked content, content renditions, or control over authored digital documents and published Web content.

In some cases enterprises have achieved a form of management control over hardcopy documents that are records of business transactions by using database applications to register, track and manage the disposal of physical files and documents. These types of file or document "registers" do not provide adequate controls over the capture, retrieval and accessibility to digital content.

This deficiency has led to many organizations seeking solutions, such as document management systems, to manage digital business content. Document management systems have generally been implemented to meet regulatory compliance within the context of document recordkeeping requirements, or management of digital archive collections. Otherwise, they have been implemented as solutions for managing specific types of content objects, such as ISO9001 quality management system documentation, engineering drawings, safety documents, and similar.

More recently, organizations have sought to acquire Web content management systems with the view to providing controls over digital content that is published to Web sites. The imperative for such a solution may be a commercial one, motivated by product to market visibility, customer service, and profitability. There may also be a response to compliance needs, motivated by managing Web content in the context of "recordkeeping" to satisfy regulatory or governance requirements.

The methodology of implementing document or Web content management systems has often been based on a silo approach, with more emphasis on tactical business imperatives than support for strategic enterprise information architecture initiatives. For example, organizations may attempt a Web content management solution without taking into full account digital documents that may be used to create content outside the constraints of Web compatible formats such as XML-defined, but which are subsequently required for publication. Thus, document and Web content management may be viewed as discrete solutions, and business applications may be implemented without an integrative approach using workflow and systems for managing both business documentation and Web content.

Another example of a silo approach is the deployment of database solutions without cognizance of document or Web content management requirements. For example, organizations may deploy a solution for managing contracts, including database application capabilities for establishing the contract, recording payments and variations, and managing contract closure. However, the management of contract documents may not be viewed as an integral part of the application design, or the workflow review and approval, or managing the published contract materials on Web sites. The result is that users often miss vital information rather than manually relate data retrieved through a number of separate applications.

There are compelling reasons for organizations as they address the constructs of enterprise information architecture, to consider the management of digital content within the context of an integrative approach to managing business documents and Web content. The strategic rationale for such an approach encompasses the following types of business imperatives:

- Customer satisfaction is a key commercial driver for both business and government. In the case of the commercial sector, the need to attract and retain customers, and in the public sector, the need to support government initiatives directed at taxpayer benefits. Organizations are adopting strategic