Electronic Document Management Systems

The purpose of an Electronic Document Management System is to provide a central repository for documents. An electronic document management system allows for:

- Secure environment for document storage;

- Immediate web based access to documents by authorized personnel from any location;

- Multiple users can access the same document simultaneously, at anytime;

- Management of versions of documents to minimize inconsistency and redundancy;

- Increased speed of storing, retrieving and modifying documents;

- Reduction of paper, space and staffing requirements associated with paper filing systems.

An EDMS system offers a means of adding documents to an online repository and associating properties with those documents to make them easier for users to locate and retrieve. It also provides a method to check-out and check-in documents so that additional versions may be created and retained without overwriting previous versions. It facilitates collaboration by allowing all parties to simultaneously locate and use the most recent version of an electronic document. Additionally, the system supports a wide variety of document and data formats.
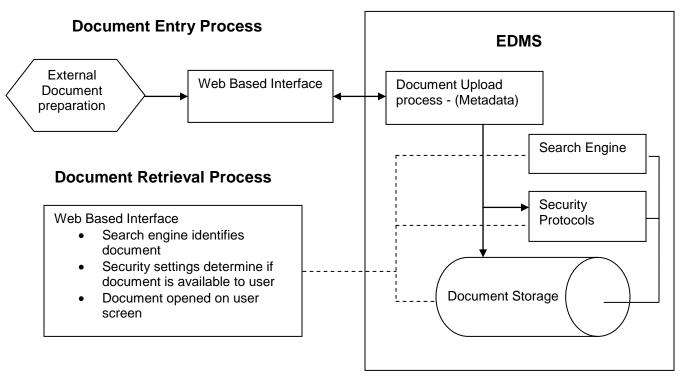
Users may upload, search, view, check-out and check-in documents according to the user group to which they belong, or the access rights specifically granted by the individual that added the document to the EDMS system. Usually access to an EDMS is provided based on user groups.

Figure 1 shows a schematic of an EDMS system from a user perspective. There are two basic tasks: adding and retrieving documents. Adding documents involves first creating an electronic version of the document to be uploaded. In some cases the document may already exist on the user's computer. When paper documents need to be entered in an EDMS they must first be scanned to create electronic copies.

Once the document is created the user goes on line and uploads the document. There are usually data fields which must be filled in by the user. The filled out data fields provide the metadata, or indexing tags, that are associated with the specific document being uploaded that will facilitate retrieval of the document. At the time of upload, the user also assigns which user groups have what kind of access (e.g.: rights to view the document, rights to add a new version, etc) to the document. At this stage, naming the document correctly using the correct naming convention is critical so that the document will be easy to retrieve after it is uploaded.

Without search engines, naming conventions and other metadata, documents can get lost in the system. Also, the user's ability to determine that they have the latest version is limited.

The user begins the retrieval process by logging into the EDMS and either searching by entering information in the appropriate property criteria and executing the search, or browsing through the repository. If the user has the right to view the document or its properties, the document will appear in the search results or during browsing.

Figure 1: EDMS Schematic

Document Entry Process

EDMS

External Document preparation → Web Based Interface ↔ Document Upload process - (Metadata)

Search Engine

Security Protocols

Document Retrieval Process

Web Based Interface
- Search engine identifies document
- Security settings determine if document is available to user
- Document opened on user screen

Document Storage