

The Paperless Office

Managing your documents

Expert knowledge means success



Contents

1. Introduction
1. Considerations
3. Third Party Document Management Systems
4. Using an Intranet
5. Further Information

Note: This publication has not been updated since it was last published. Some of the hyperlinks may have changed and may need updating. In addition, some of the information in this publication may be out of date.

Introduction

The “Paperless Office” refers to the use and storage of information on digital media as opposed to on paper, in essence a document management system. A paperless office may not be possible – or even desirable – in some cases but most businesses would benefit from rationalising their use of paper and its storage – a “less paper” office. This could be implemented via a sophisticated third party Document Management System (DMS), an Intranet or by simply using the inherent features of your operating environment.

Your business may have already reduced its paper trail by moving from fax and letter to e-mail or by implementing computer based ordering and logistics systems. A document management system will allow you to reduce your paper mountain even further while bringing additional benefits - for example, multiple or remote document access to a single document – not possible in a paper based system. Another often overlooked benefit is the improved service you can offer your customers in terms of real time response. For example, when a customer calls you can respond to their requests immediately by calling up relevant information to your computer screen instead of physically locating paper based files from one or more filing cabinets.

Using a document management system, may take a little longer initially, but the benefits are reaped at a later stage. For example, in a paper based system a single business letter may be dictated to a secretary, typed up, reviewed, sent out and filed. A letter within a document management system may also need to be categorised for electronic storage but would be easier to find at a later date and could be accessed remotely by multiple individuals. In addition, the author would typically be required to enter the letter according to a pre-defined template ensuring a professional business wide consistency.

This publication will look at some of the issues you need to consider if you wish to digitally replace your paper-based information. Whether you choose to implement a home grown or implement a third-party Document Management System,

the pre-requisite review of your current working practices will prove a valuable exercise in itself.

Considerations

Cost/benefit analysis

Improvements in speed, space-saving, security, efficiency, cost and disaster recovery can all be gained from a well implemented document management system. Your data volumes, budget and the sophistication of your requirements will be crucial factors in making the decision between a simple home grown solution and a fully functional third party DMS. Any financial investment needs to be considered in light of the potential returns and implemented with appropriate consultation and training to ensure that it delivers the expected benefits. Lack of planning could result in volumes of unstructured data that may not yield any benefit.

Whether it will be more cost effective for you to digitally store all your paper documents depends on a number of factors including – but not limited to:

- The volume of documents your business handles.
- The original source of the documents, i.e. internal or external.
- The original formats of the documents, e.g. will images of invoices need to be integrated?
- Frequency of document update.
- Frequency of document access.
- The storage cost of paper filing.
- The printing cost of paper filing.
- The training costs of a new system.
- Any additional benefits that may accrue simply by storing documents electronically – e.g. remote access.

For example, if the documents are of your own creation, they are likely to already be in digital format. However, if they have come from an external source, they may be in paper form only – for example letters and faxes. In this case, they will need to be scanned to convert them into a digital format.

If many documents need to be scanned, the scanner must be fast and efficient. Look for a double-sided scanner, fast enough to scan 25 pages per minute and 64 images per minute. Image quality should be at least 200 dpi – preferably 300 dpi - to satisfy the legal requirement for legibility and for acceptable

optical character recognition. Bear in mind that storage requirements increase with dpi.

Document usage and flow

You need to understand how documents are used within your business. If you have an effective paper based system, it may be more effective to replicate it than to introduce an unfamiliar workflow process.

Consider the following:

- Which documents are created internally for internal consumption, e.g. memos?
- Which documents are created internally for output?
- Which documents come in to your business from external sources?
- Which documents are handled by more than one person or department?
- How does each type of document currently flow through your business?
- At what stage of workflow would your business benefit from the document being stored electronically?
- How are documents currently filed, e.g. is it a client-based filing system? Does this work well?
- Do some documents require multiple contributors?
- Do some documents need approval or authorisation for access/deletion/long term storage?
- Are some documents updated?
- Are some documents confidential?

What to store

Don't presume you need to digitally store all existing and new documents. Document scanning will significantly increase your data storage and will require a well thought out structure and processes for effective management.

Consider the following:

- Which documents must you legally retain?
- Which documents contain information critical to your business e.g. contractually binding agreements;
- How often are older documents referred to?
- If you do not need to maintain all documents, who will determine which non-critical documents to store?

You may decide to digitally store all legal and critical documents - both current and old – and all new paperwork. If old documents are rarely required it may be more practical or cost effective to simply pack non-critical

old documents away and store them rather than scanning them and storing them digitally.

Storage requirements

The volume of data you need to store will determine the document management solution you choose and the type of scanner and storage you require. Remember that if you use OCR conversion you will need double the storage requirement if you store a facsimile of the original document.

Consider the following:

- How many documents do you need to store over a given period?
- What format will the documents be stored in?
- If you are using OCR conversion, do you need to store both the original and the converted document?
- How long do you need to maintain an archive?
- Do you need removable storage for back-up and disaster recovery procedures?

If you plan to make use of your computer system's inherent filing system, you may need to consider its capacity and upgradeability. Take advice on whether your existing computer infrastructure will cope with the increased level of activity.

Training and Control

In a paper based system, any member of the office can photocopy a document or file it in a cabinet. In a digital filing system you will need to implement more training and more controls - an inexperienced user could accidentally delete or overwrite stored files.

There is also the issue of who is going to be responsible for running the document management system? Control may need to be split according to function: for example the IT department would naturally look after the technical infrastructure, but customer service may control the content of document templates.

Consider the following:

- Will digital document storage be undertaken by identified individuals or all document recipients?
- Who will have the authority to retrieve documents?
- Will security measures be required for access to confidential documents?
- How will version control be

- implemented?
- What naming conventions will be used?
- What level of training will be required?

Even in the simplest of cases, where all your existing documents are created and received digitally – so no scanning is required – and the ubiquitous Microsoft®¹ Windows®² folders system is used- users will still need training in where to store different types of documents and how to allocate unique filenames. If a proprietary Document Management System is implemented, all users will require product training.

Third Party Document Management Systems

If you decide that your business would benefit from storing and managing all information digitally, you then need to determine whether your needs can be met using your inherent operating system and document software, an Intranet or whether your business would benefit from a proprietary Document Management System.

As with all third party software, one of the benefits over a home grown solution is the immediate availability of a proven application. In this case, another important consideration is the ever increasing requirement for businesses to meet legislative standards regarding their record keeping. Financial services companies need to be able to prove that information is unaltered to comply with Sarbanes-Oxley; medical practices have to prove that their records are confidential to comply with HIPPA. Legal firms need to meet specific requirements related to discovery, including full-text searching of massive amounts of documents. In such cases, a well respected third party DMS that incorporates established procedures with a verifiable audit trail could prove the wisest choice.

A good DMS can revolutionise the way your business performs will allow you to:

- manage large volumes of data, but retrieve the document you want in seconds;
- share selected documents locally and remotely, but keep others confidential;
- adhere to your natural business

workflow, but enforce templates or procedural roles as stipulated;

- facilitate easy document storage and onward document forwarding;

Document imaging revolutionizes the archival of information and provides the means to rapidly find, retrieve and share all documents in your system.

A DMS should have the following standard capabilities:

- Scanning and importing tools to bring documents into the system;
- Methods for archiving and storing documents;
- Indexing systems to organise documents;
- Retrieval tools to find documents;
- Access control to provide documents to authorised people.

It should also be customisable to your business processes, preferably non-proprietary, scalable and modular in its purchasing structure. Above all it must be easy to use. If creating, filing, and finding documents isn't straight forward and intuitive, your employees will find it more difficult to use and may either resist it or maintain additional paper records.

Standard Features

When considering a Document Management System, there are standard features you should look for. You may have additional requirements to those mentioned here, for example support for multiple sites/languages or a Web interface.

Configurable filing system

If the filing system can be modelled on your existing filing system, the upheaval and learning curve will be minimised.

Version control

An optional revision history should be available for each document and it should be easy to tell whether the copy you have is the latest. You may wish to have access to multiple versions of a document or only allow access to the latest.

Document modification

Documents should be editable without being exported from the system, edited and re-imported. You may also want to annotate other information to the document that does not form part of the body of the document.

Search features

Document Management Systems typically text index documents when adding them. These indexes can then be used for fast searching. Scanned images would need Optical Character Recognition (OCR) to be indexed in this way. You should be able to add your own data to a document to allow you to search on keywords that are meaningful to your business.

Integrated scanning

An integrated scanning device should be included, with full featured OCR. The system should also be compatible with other proprietary scanners. Multiple page input should be handled and scanned documents should be automatically stored.

Configurable relationships

Document relationships and dependencies should be definable, e.g. an invoice may be related to a statement of work.

Notification

Users should be able to subscribe to a list to be notified if changes are made to a document or a group of documents of interest to them.

Security

Access rights – view, amend, comment and delete - should be definable at both a group and user level to protect sensitive documents. An audit trail should also record access and attempted access.

Workflow features

Workflow processes should be easy to define without specialist knowledge. Users should have their own secure workflow page that notifies them of outstanding actions, e.g. authorising a holiday request. There should be an automated approval process, tracking and reporting facilities. External users should be supported.

Configurable Help System

An integrated context-sensitive help system should be included. You should also be able to add your own help comments, particularly for workflow processes.

Selecting a Supplier

Intellect is the trade body for the UK based information technology, telecommunications and electronics industry and has over 1,000 members. It has a Document Management Group and provides a number of useful publications including a Document

Management User Guide. It also has a facility to search for Document Management suppliers by company, areas of expertise or products supplied. Further information can be found at: www.intellectuk.org.

The British Computer Society and the Business Application Software Developers Association provide case studies of selected Document Management Systems on their websites: www.bcs.org and www.basda.org respectively.

Using an Intranet

An Intranet is a private space that gives employees in a company the ability to organise information, readily access that information, manage documents, share calendars and enable efficient collaboration all in a familiar browser-based environment. Because all your important business information resides in a central repository, it's available at any time, from anywhere in the world using a simple web browser. Replacing paper-based office procedures with Intranet services that manage such items as company meetings and company holidays is a further step towards the paperless office.

Further Information

This guide is for general interest - it is always essential to take advice on specific issues. We believe that the facts are correct as at the date of publication, but there may be certain errors and omissions for which we cannot be responsible.

Acknowledgement

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