



A white paper by Anna Ferguson  
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# THE APPLICATION OF SHAREPOINT TO COMMON BUSINESS PROBLEMS

Right across the industry sectors, businesses are facing huge but common challenges. As globalization continues to gather pace and the trend to work in locations other than the office continues, the ability to communicate efficiently is a priority. Businesses need to become more and more agile and dynamic in order to compete, but this can be inhibited by legacy manual and paper-based processes. Unstructured data and documentation is proliferating across organisations, and its management and control is a fundamental issue.

Unstructured data currently accounts for 80% of a company's total data, and is doubling every two years<sup>1</sup>. Documentation is often stored in poorly structured shared drives, leading to difficulty in finding and time spent searching for information. Different versions of documents are often duplicated and there may be poor visibility of the most recent version, potentially leading to errors where the incorrect version is used.

Sharing of information across sites and company divisions is often difficult which again leads to inefficiencies and even political issues and hostility between branches of the same organisation. The increase in flexible working practices also means that the effective exchange of information is essential: 96% of private sector employers now offer at least one flexible working policy, and 28% of employers offer home-working<sup>2</sup>. The trend is increasing, as the number of employers offering flexible working has doubled in the last 6 years.

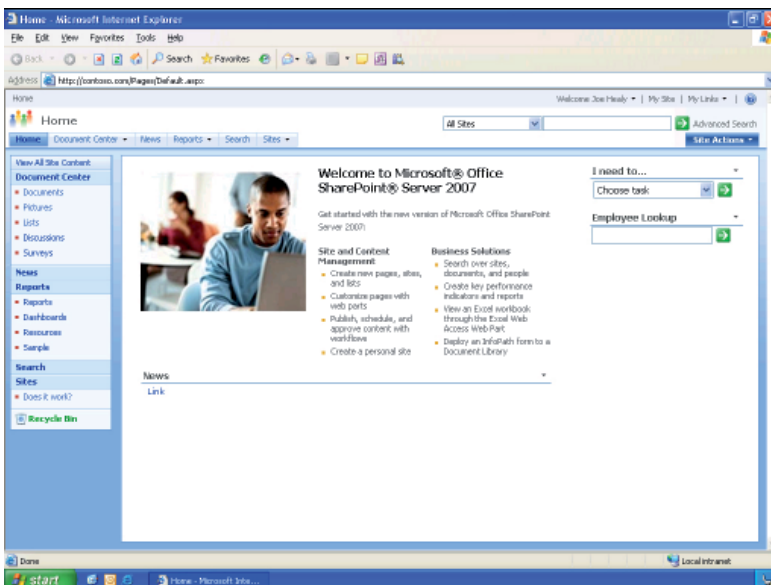
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1. Accenture, 2006.

2. Survey by the DBERR (Department for Business, Enterprise and Regulatory Reform) and ACAS (Advisory, Contributory and Arbitration Service).

The movement of paper documents presents many problems: they are difficult to track, they can be lost, and manual processes can lead to errors. There is no visibility of the state of the process, and time is spent chasing up actions and monitoring the process. Whilst in the majority of cases these business issues lead to loss of productivity and cost, the implications can be more severe where processes fail, for example leading to litigation or in some cases loss of life. The Piper Alpha disaster of 1988 was caused by a poor paper-based work order process that failed to identify a faulty gas valve.

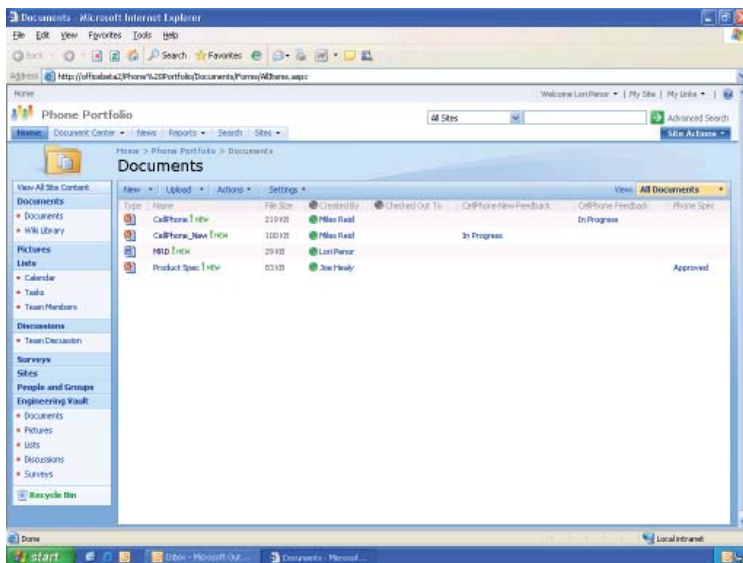
Many of these common issues can be resolved, or at the least alleviated, with the intelligent application of SharePoint, and in particular of Microsoft Office SharePoint (MOSS) Server 2007. Because MOSS 2007 is so flexible and configurable, it can be applied to a wide range of business problems across any industry. It can provide a single point of entry for all information sharing across sites, i.e. a common intranet with links to, or integration with other systems. Document management and control features are very powerful, with the ability to create controlled or uncontrolled documents in any area of the site. Manual processes can be implemented electronically, providing process visibility, increased automation and ultimately reducing the time to complete procedures and the potential for mistakes.



*Users can work within a user-friendly, web-like environment in Microsoft Office SharePoint 2007*

A powerful feature of MOSS 2007's document management is the information or "meta-data" that can be stored against the documents in columns. For example, a document library designed to hold drawings may associate the drawing number, drawing title and plant area against a document. This data might originally have been stored in an Excel spreadsheet, requiring this to be maintained and updated. In SharePoint, the data and documents are brought together, providing a much more robust solution.

Document control features, i.e. the ability to view version history and track changes, are also extremely powerful, particularly in scenarios where it is essential to be using the latest version. Approval workflow is another "out of the box" feature of SharePoint, allowing standard manual approval processes to be easily implemented as automated processes within SharePoint. SharePoint integrates fully with Microsoft Outlook; hence e-mail notifications become an inherent part of the automated workflow.



*Document management made easy: users can view documents with additional information as required, such as file type, size and document status. The 'jelly bean' associated with users' names denotes their presence.*

Enterprise search is another feature of SharePoint that allows data across the SharePoint portal, shared drives and other integrated systems to be searched. The search functionality is very powerful, and also allows specific words within Office and pdf documents to be found in addition to words within the document file or meta-data.

This brief description of SharePoint functionality has only touched on a selection of its features (and even more can be achieved with some customised development), but perhaps one of the most innovative aspects is that documentation can be combined in one space with “live” information such as discussion forums, news, calendars etc. It is simple to construct project or team sites around the requirements of an organisation, bringing people and all relevant information together around a particular subject area or issue.

Because there is such huge potential for configuration and flexibility within SharePoint, cementing the requirements is vital. There can be the temptation to try to solve all a company’s issues in one development stage, but this is generally impractical. One technique that works well is to phase the implementation, with a series of sub-projects being identified. In addition, identifying teams or “champions” to initially use and trial discrete SharePoint applications can be very valuable.

The first step in designing a new SharePoint application is to define the overall structure that is required. If the portal is providing an intranet, the portal can be structured around teams or functions. More complex applications can then be built into the intranet structure, for example a drawings database could be part of the Engineering team site.

Once specific sub-projects have been identified, requirements for each sub-project must be defined in detail. Examples of areas that might need to be clarified are:

- What document libraries are required and what meta-data should be associated with the libraries? Should the document libraries be controlled or uncontrolled? If uncontrolled is only major versioning or major and minor versioning required?
- What are the security requirements? In general, if security groups can be defined at sub-site level these can be managed through SharePoint’s administrative page. However, if security is required at the document library or even document level, it may be necessary to provide some administrative tools (e.g. a set-up wizard or customised administration page) to manage this.

- What workflow is required? Standard SharePoint workflow can be easily applied, but more complex workflow requires custom implementation. In some cases it may be possible to simplify the business process and hence the workflow required by re-engineering some of the business processes.

There can be many other specific requirements that need to be addressed on a case-by-case basis. Because MOSS 2007 is a new technology and is so flexible, some prototyping may be necessary to determine the extent of the development time.

As part of the portal design and implementation, a strategy for ongoing use and maintenance of the portal should be devised. For example, the whole organisation could be given the means to add and remove components of the portal, but this is generally not to be recommended and can lead to confusion and an unstructured portal. In general, it is advisable to appoint an overall portal administrator, who can add and remove members to the top level security groups. These can include groups with read access, groups with read and edit access (i.e. the ability to edit and upload documents) and approver groups.

Within portal sub-areas (for example team sites and project sites), a sensible strategy is to appoint a sub-site administrator (who may be a project leader, team head or team administrator) who can add or remove components to the sub-site if required (for example create a new document library) and maintain the security groups relevant to the sub-site. In addition, each sub-site may have a readers group, an editors group and approval groups. This provides a compromise between total control, and hence the inability to be creative, and an unstructured, un-navigable and un-useable system developing organically.

Templates provide another useful means for ongoing management. For example, a project template can be designed, and when a new company project is set up, a new project is simply created from the project template in SharePoint and named as required.

Some of the important considerations for a successful SharePoint implementation have already been described, but in summary the following steps will lead to a successful outcome:

- Ensure that the requirements are understood and agreed with the business down to a fine level of detail. Small misunderstandings can lead to significant additional complexity and development. Don't try to solve every business problem in one go!
- Phase the implementation if necessary to break the project into manageable chunks. Where the technical solution for some of the requirements is not completely understood it can be beneficial to undertake some prototyping up front to ensure that the requirements are achievable within a realistic timeframe.
- Get "champions" involved as early as possible. These people will take an interest in the development, will be keen for the system to meet their needs and will pioneer its use.
- Feed progress back to the "champions" or user group. It is advisable to demonstrate the system at an interim stage before completion of the project, to ensure the project is progressing as users expected and to make any minor changes required within the life of the project.
- Strong Project Management ensures that the project is driven forward and completed on time.
- After the project has gone live, collect feedback from the users and incorporate any lessons learned into future projects.

We have found that MOSS 2007 can provide huge business benefits if the implementation is well managed and defined. Because of its capability for a high degree of configuration and customisation there are some pitfalls to be avoided, but this attribute also means that great business improvements can be achieved.