



# **Aspects of Document Management**

## **Briefing Document**

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## Abstract

An overview of the significance of documentation and document management to a business and its operations is presented. Both the documentation process and the resulting documents are of benefit to the business. Documents have a cost of production, a value to the business and a depreciated value. Like any other asset, these should be properly managed across the enterprise.

Document management is part of the overall process of turning data into wisdom (power/profit) which is at the heart of successful knowledge management and critical to knowledge worker operations. A key element is the required cultural change with quality and managed documentation being recognised as an expected outcome from projects and consulting engagements. Position descriptions, performance criteria, career development and bonuses should all include an appropriate documentation and/or document management element. Although technology has a lot to contribute to document management projects, effective and efficient document management can be achieved with minimal levels of technology. Such projects need to be owned by the business, driven by the business for the business.

Peer review and signoff play a valuable role in assuring the quality of outcomes as well as preventing premature actions. Peer review and signoff has been the cornerstone of successful documentation and document management activities for years. Any document management solution considered should integrate the management of digital images and paper records.

Another element of successful document management is the integration of search and the management of information relationships. This means that details about documents (metadata) that is usually trapped in peoples heads can now be made available and so improve business operations. Further details on documentation and document management are presented in this Briefing Document.

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# 1 Introduction

This Briefing Document presents an overview of some issues related to documentation and document management. The purpose of the document is to touch on issues that ensure successful document management to realise business benefits. Aimed at all staff in both the business and IT, this Briefing Document addresses the benefits and operational issues relating to documentation and document management.

Section 2 provides background details, whilst Section 3 looks at documents as an asset. The cultural change issues relating to documentation and document management are summarised in Section 4 and the ownership of document management is addressed in Section 5. Peer review and signoff are noted in Section 6. Section 7 discussed the integration of a document management system with imaging and work-flow. The significance of information relationships is detailed in Section 8 and some IT issues are commented on in Section 9. The appendices provide details on estimating the true costs of documents.

## 2 Background

Many discussions on document management have a tendency to make a simple topic complicated. Start with the basics. A smart company manages its assets. Where knowledge workers dominate, companies align to the BIDS formula:

$$\text{Brains} + \text{Infrastructure} + \text{Data} = \text{Services}$$

Services are manufactured and sold by getting the most value from our staff (brains) and infrastructure (desks, plant and equipment etc.) and it needs data to make all of this happen. The first two assets are heavily managed and valued on the balance sheet but it is data that often becomes the poor cousin.

A business has five basic data types:

- spatial data – maps and other data that has a locational component
- documents – a wide variety in different formats including faxes, presentations, proposals, forms, reports<sup>1</sup> etc.
- database data – data stored in relational databases and could include contact details through to a directory of wines
- transactional data – data required or produced from transactions, e.g. purchase orders or loan applications
- email – data that are trapped in emails

A unified access to all of this data in context is required if a business is to standardise its operations to guarantee service delivery. Only when you need, want and understand data does it become information, Figure 1. When used with experience it becomes knowledge and when applied in the right way at the right time does it become wisdom (power / profit).

This simple statement highlights some key issues:

- by definition, knowledge management will only work when data management is addressed

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<sup>1</sup> Documents includes tables stored in Excel spreadsheets and graphical images.



- if the value of information is to be realised, information needs to be presented in context, i.e. the relationships between information need to be managed
- information and knowledge are achieved because data are tied to a process, i.e. information management and work-flow are linked.

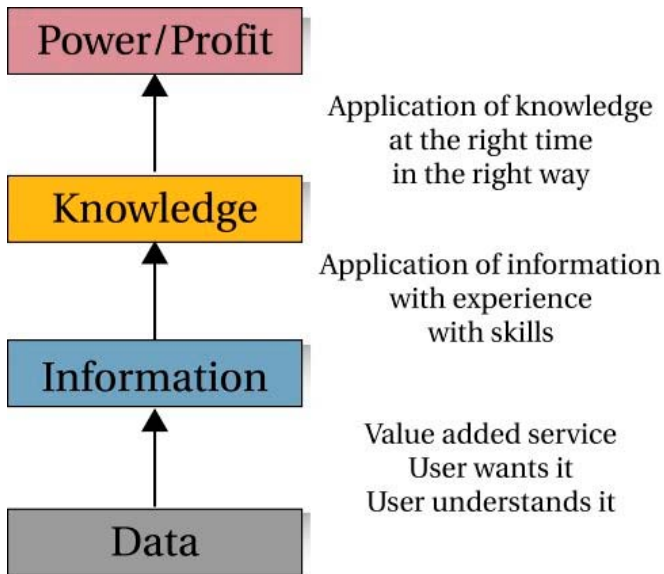


Figure 1. Relationship between data and power/profit/wisdom.

As is often the case, the obviousness of the proceeding discussion is self evident but a failure to appreciate these basic principles often leads to increasing hidden costs and a failure to standardise to guarantee service delivery.

### 3 The Value of Documents

Whether it is a consulting report, a legal contract or a system design specification, documents have a cost of creation. The editable table, Table I, provides an illustrative cost of document creation for an in-house medium sized document. Intended for illustrative purposes only, the cost of creating a tender or an out-sourcing contract, say, can also be determined. Further costing exercise can be followed in the Appendices to realise the true cost of documentation.

Any asset has an initial value which can rapidly depreciate if it is not properly managed and maintained, i.e. documents are an asset of the business with a depreciation schedule. The direct value to the business of a document varies with context and with time. A tender that is missed because of poor documentation has an immediate impact upon the bottom line of the business. Similarly, being able to produce a document in a law case to save the business costs can also impact significantly upon the bottom line.



<b>Cost to create a document</b>				
Services	\$500 per day			
		<b>present practice</b>		
<b>Task</b>	<b># people</b>	<b># days</b>	<b>Cost</b>	
Design and planning	1	0.5	\$250	
create original material	1	3	\$1,500	
review material	1	1	\$500	
			\$2,000	

Table I. Illustrative cost of creating a document.

There are many examples of the risk and compliance issues associated with not doing proper documentation and not managing documents. Examples include:

- Ability to report and meet compliance needs, e.g. NAB not being able to report compliance to Baesel and potential loss of licence.
- Reduces the risk of having to appear in court and confessing that the documents can not be found, e.g. fines incurred by Optus.
- Avoids the issue of not having enough time and money to do it once and properly but always being able to do it many times badly – examples all too prevalent in IT projects.
- Imposes a discipline upon all parties to ensure that they know what they are doing, what is involved and this is what they want, e.g. BP and its million dollar abandonment of its global SAP implementation.

Reporting to government for legislative issues, auditability and standards compliance are all activities that require proper documentation and those documents to be managed.

Other benefits of documentation and document management include:

- a vehicle for driving cultural change and business optimisation,
- a mechanism for accountability and discipline,
- sharing intellectual property,
- reduced risk,
- elimination of bottle necks and points of dependency.

## 4 Cultural Change

Many document management projects fail to realise the promised benefits because the required cultural change is not addressed. Ways to ensure success include:

- Documentation and document management is part of an employees position description and an expected outcome.
- Documentation and document management is included within projects as a deliverable.
- Time and resources are allocated to documentation and document management.



- Documentation and document management is included within out-source and consultant contracts and engagements.
- Bonuses and penalties apply to documentation and document management.
- Assessment of performance bonuses and career advancement includes an appropriate documentation and document management component.
- Training and mentoring provided.
- Valuing and instilling a culture that champions maintenance of documents at source by subject matter experts as part of every day business processes.

N.B. The same issues relate to information management in general.

## 5 Project Ownership

The number one failure for document management systems is having the project owned by IT. The implementation of a document management system is not an IT project. The project is owned by the business for the business and is driven by the business. IT may be responsible for the installation and operation of any document management software but the need comes from the business. It is the business who are responsible for its ongoing management and operation.

Another issue related to project ownership is distinguishing between the legacy of documents that need to be addressed as priorities, time and resources dictate and addressing what to do from this time forward. Above all, avoid dumping a legacy set up into a new system in the hope that it will get fixed. Practical experience shows that the legacy will just grow and colonise the new system.

## 6 Peer Review and Signoff

Peer review and signoff play a critical role in documentation. They engender accountability and facilitate strategic issue resolution. With accountability comes cost savings, higher performance and better service. With strategic issue resolution<sup>2</sup> comes a more effective and efficient operation. In an age where results are expected instantly, there is often enough time and resources to keep doing something badly several times over but not to do something once and properly.

Peer review is about taking documents and having them reviewed by the appropriate parties before sending them out. Peer review nurtures the development of the individual and realises better outcomes for the business. Peer review may slow down activities now, but it invariably leads to better considered outcomes.

Signoff is simply that. An agreement that you are happy with the results and that you stand by it. Signoff is not a barrier to progress. Should a party signoff and absolves themselves by saying that they have not read the document, progress can still continue. Signoff creates accountability.

## 7 Imaging and Work-flow

Aligned to document management is the management of digital document images. Much of the standardised form and application processing can be optimised through having documents scanned and archived at time of receipt and then working off the digital images. The benefits are numerous and include:

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<sup>2</sup> Tempered with pragmatic need.



- ability to share images across the work-flow facilitates processing;
- accessing original documents from archive avoids duplication of effort in trying to find document<sup>3</sup>;
- simplified processing and archiving;
- clear identity of stage of processing and responsible party.

Any document management system should align with and support digital imaging, including archiving details.

## 8 Information Relationships

Optimised business operations occur when the relationships between information are managed. The hotel porter getting a tip because they tied the time of your arrival, to your room number, to you and your taste for a given wine is a simple example. Whilst many document management systems become repositories for documents, few become valued resources because the required relationships are not managed. Information about documents (metadata) is at the core of this.

Metadata provides details such as a title, a description of the document, version, format, restrictions, privacy and access rights to list some of the main ones. Other components of the metadata framework include classification of documents for searching and retrieval. This would encompass the document type, the intended audience, keywords, company which it relates to and more. Metadata is about taking information about documents trapped in people's heads and making it available to others. Metadata needs to be entered and maintained by the subject matter experts at source as part of everyday business processes.

## 9 IT Infrastructure Issues

Document management systems raise some key IT infrastructure issues.

### 9.1 No IT dependency

It is important to appreciate that effective and efficient document management is NOT dependent upon IT. A comprehensive filing system is an example of a document management system. IT has a lot to contribute and can help optimise the process but the focus is the business.

### 9.2 Content Management Systems

Web site content management systems duplicate much of the functionality of document management systems. Although a full discussion of Web sites and Intranet-Internet alignment is out of the scope of this document; it is worth noting that a carefully implemented document management system also brings significant benefits to business optimisation around the Internet.

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<sup>3</sup> Experience shows that best results are achieved when documents are scanned at source by the mail room and archived. A dedicated team then quality assures the images and allocates the work for processing. Except in special circumstances, the mailroom should only send copies of original documents when requested and when sending originals, a copy should be kept in the archive. Like a courier service, the receipt of documents should be signed for.



## 9.3 Network Drives

Whilst sharing documents on network drives is a significant step forward over having them locked away on the desktop, the network drive is a less than optimal solution because:

- the intended use of the network drives is not defined;
- network drives tend to become dumping grounds;
- business gets on a spiral of ever increasing demand for storage, buying expensive systems that are not needed.

By implementing a document management system, the use and need for network drives is defined, controlled and can be managed.

## 9.4 Backup and Recovery

Backup and recovery of information is a key service provided by IT. With transactional and database data routinely backed up, source code secured and documents backed up in a document management system, the recovery plan becomes simpler. Once imaging and work-flow are implemented, digital images would be also be backed up and original paper copies archived. For most businesses, this then leaves the challenge of managing email and any spatial data. Since much of email is used for transferring documents anyway, a document management system further simplifies email management and archiving.



## 10 Appendix A – Estimating the Value of Documents

To gain an annual estimate of the cost of document creation for one area of business, the following instructions can be used to edit Table II.

- High-end publications are those that have required extensive development work and complex layout and production requirements, e.g. marketing material, annual reports. External parties would typically produce these.
- Consultant produced documents are reports and other documents that have been produced by external consultants for specific purposes.
- Internal documents >50pp are documents produced internally greater than 50 pages in length. Please adjust the average time and cost per day accordingly.
- Internal documents 20 – 50 pp are documents produced internally that are between 20 and 50 pages in length. Please adjust the average time and cost per day accordingly.
- Internal 5-20pp documents are documents produced internally that are between 5 and 20 pages in length. Please adjust the average time to produce, person days, (# Days) and person day cost accordingly.
- Internal <5pp documents are documents produced internally that are less than 20 pages in length. Please adjust the average time to produce, person days, (# Days) and person day cost accordingly.

<b>Estimated annual document creation costs</b>			
<b>Document type</b>	<b>Quantity</b>	<b>Cost per Document</b>	<b>Total Cost</b>
Internal document >50pp	5	\$2,000	\$10,000
Internal document 20-50pp	2	\$1,000	\$2,000
Internal document 5-20pp	1	\$500	\$500
Internal document <5pp	10	\$100	\$1,000
High-end publications	20	\$5,000	\$100,000
Consultant produced documents	10	\$8,000	\$80,000
<b>Total</b>			<b>\$193,500</b>

Table II. Cost of document creation for one year.

The hidden costs and duplication of effort occurring from not finding documents and recreating them can also be estimated, Table III. By varying the scenarios and applying estimates of time and resourcing that represents your business operation, the ROI of a document management system and unified search can be readily determined.

**Cost savings on duplication of effort**

Services \$500 per day

<b>Task</b>	<b># people</b>	<b># days</b>	<b>Cost</b>	
create original document	1	3	\$1,500	
search but not find document	1	0.3	\$150	
find managed document	1	0.1	\$50	
edit document	1	1	\$500	
recreate document	1	3	\$1,500	
<b>Scenario</b>		<b>Number</b>	<b>Cost</b>	<b>Saving</b>
Create, not find, recreate		500	\$1,575,000	
Create, find, edit			\$1,025,000	\$550,000
Not find		500	\$75,000	
Find			\$25,000	\$50,000

Table III. Estimates of duplication of effort through searching and recreating.