



## TenStep Supplemental Paper

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### **Create a Knowledge Base to Save Company Information**

Data is everywhere. However the right information can still be inaccessible despite advances in technology. Data contained in emails, groupware, databases and other content delivery systems becomes useless when it is not made accessible to the right people at the right time inside an enterprise. Pundits have now come to realize that problems in data distribution can be traced back to one root cause- a lack of integration.

Data is the raw documents, text, numbers and words that your company generates every minute of every day. "Data" is turned into "information" only when put in an organized and meaningful context. This happens when strings and numbers are given the right semantics and relationships. Once a context is created, it then becomes possible for employees and customers to access the information in case of a problem or a need.

Your people will not be able to find this collective knowledge if you don't have some centralized mechanism to store the information and retrieve it. This is the purpose of a centralized Knowledge Base. Knowledge management is an unwieldy area that deals with business management, document management, computing process solutions, etc. Knowledge Management needs Knowledge Bases to effectively create and store information that can be reused.

Using a Knowledge Base can give an enterprise an edge over other companies. Organizations that have made use of Knowledge Bases can realize returns in generating higher revenue, reducing costs and reacting quicker to customer needs.

Creating knowledge for an individual is not very different from creating knowledge for an enterprise. A person may have his database of personal data and important information. An enterprise follows the same concept, but to a higher and more advanced degree. The Knowledge Base helps the enterprise make use of the collective experiences of individuals. To be successful, the enterprise needs to give employees incentives to prompt them to share his experiences and submit them to the Knowledge Base. These incentives need to ensure that information doesn't walk away with an employee once they leave the organization.

#### **Help Desks and Knowledge Bases**

Help Desks are a great example of the current small-scale use of Knowledge Bases. The Help Desk staff resolves problems and enters the appropriate information into their software tool. When other users call with similar problems, they are then able to access the prior solution, thus reducing the time spent reinventing the solution each time.

When a helpdesk reuses information from its Knowledge Base, it makes use of a solution that has worked for similar situations in the past. This is a simple example of case-based-reasoning (CBR), an approach derived from research and development in expert systems. In the Help Desk Knowledge Bases, cases are given a small description, solution, and a descriptor as a case number. A provision is also made to evaluate the problem according



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to its reusability. This information can be supplemented with attachments in multimedia formats that give a detailed idea of the solution. Knowledge Bases can also make use of hardware and software manuals, newsgroup files, frequently asked questions, etc.

### **Knowledge Base Fundamentals**

Components of knowledge bases include: the raw data, keywords, indexes, metadata about the data, search mechanisms, access counts, etc. The entire system can then be set up using standard database software, or storage mechanisms especially designed for knowledge management.

Accessing information from the Knowledge Base is based on how the underlying data is arranged and the relationships of different data elements to other elements. Popularity of information can be gauged based on the number of times a document is accessed. Material that is rarely, or never, retrieved needs to be re-indexed to make it more relevant, or else purged after some period of time.

### **Summary**

A company that uses Knowledge Bases can capture information and knowledge before it 'walks away'. The prior collective knowledge is made accessible to use as the solution to a current problem. This cuts down costs and increases efficiency, in addition to helping create a culture of 'knowledge sharing' in an organization.