



## **Chapter 19**

# **Client/Server and the Knowledge Directory: A Natural Relationship**

Stuart D. Galup and Ronald Dattero  
Florida Atlantic University, USA

*Developing and supporting knowledge management systems that seamlessly integrate with the existing information technology infrastructure is a major challenge. This development requires the functionality to locate and disseminate knowledge. An integral part of this requirement is the knowledge directory - a layered component accessible by any knowledge requester that can direct the knowledge requester to the location of the knowledge, in whichever format it may exist. This chapter discusses a client/server architecture that employs the knowledge directory to support the development and ongoing maintenance of knowledge management systems.*

## **INTRODUCTION**

The downsizings of the 1980's, the information technology driven productivity gains of the 1990's, and the pending retirement of baby boomers has and will result in a massive loss of enterprise and job specific knowledge. Business and government cannot afford the massive loss of intellectual capital resulting from these three events. Consequently, those enterprises that can retain and use the knowledge will have a significant competitive advantage.

Knowledge is an intellectual property that although paid for in part by the employer is a difficult asset to control as it is fragmented in documents, policies, procedures, and other data storage mediums. Another challenge for management is to retain this knowledge in a form that is easily retrievable. This is not an easy

Previously Published in *Challenges of Information Technology Management in the 21st Century*  
edited by Mehdi Khosrow-Pour, Copyright © 2000, Idea Group Publishing.

This chapter appears in the book, *Knowledge Mapping and Management* by Don White.  
Copyright © 2002, Idea Group Publishing.

task, since the enterprise must first identify the location of all needed knowledge, and second, determine the easiest way to retrieve it.

We begin this paper with a general discussion about knowledge management (KM) and client/server technology. Next, we develop an architecture for a directory server which client/server knowledge management systems (KMS) use to search and retrieve knowledge. We end with a discussion of KMS cases in the context of this architecture.

## KNOWLEDGE MANAGEMENT

Data, information, and knowledge are three related but not interchangeable concepts. Data is a set of discrete, objective facts about events. Information is organized data presented in context. Data becomes information when its creator adds meaning or value. Similarly, knowledge derives from information as information derives from data. Knowledge can be viewed as information in context, together with an understanding of how to use it. Knowledge can be either explicit (knowledge for which a person is able to make available for inspection) or tacit (knowledge for which a person is unable to make available for inspection). (Dav-  
enport and Prussak, 1998; Brooking, 1999)

There are many definitions of Knowledge Management but the Gartner Group (1999) description seems most appropriate for the perspective expressed in our paper. "Knowledge management promotes an integrated approach to identifying, capturing, retrieving, sharing, and evaluating an enterprise's information assets. These information assets may include databases, documents, policies and procedures, as well as the uncaptured tacit expertise and experience stored in individual workers' heads."

This definition implies that information assets are plentiful and are stored in numerous locations throughout the organization. Storage options include documents, documents in document management systems, groupware such as Lotus Notes, and expert or knowledge based systems (Brooking, 1999). Physically these information assets can be electronically stored on Compact Disk, Laser disk, mechanical hard drives, microfilm, microfiche, and embedded in computer programs. Further, information assets are also stored in books, documents, and other paper-based medium. Knowledge that is particularly critical include (Brooking, 1999):

1. Knowledge of a particular job;
2. Knowledge of who knows what in a company;
3. Knowledge of how to get things done in a company using the corporate culture;
4. Knowledge of who is best to perform a particular job or task;
5. Knowledge of corporate history (how and why);

6 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/chapter/client-server-knowledge-directory/25392](http://www.igi-global.com/chapter/client-server-knowledge-directory/25392)

## Related Content

---

### Self-Learning and Self-Satisfaction: Exploring the Relationship Through Knowledge-Sharing Behaviour

Vibha Mahajanand Jyoti Sharma (2021). *International Journal of Knowledge Management* (pp. 1-18).

[www.irma-international.org/article/self-learning-and-self-satisfaction/281620](http://www.irma-international.org/article/self-learning-and-self-satisfaction/281620)

### Knowledge Creation

Nilmini Wickramasinghe (2008). *Knowledge Management: Concepts, Methodologies, Tools, and Applications* (pp. 2952-2964).

[www.irma-international.org/chapter/knowledge-creation/25310](http://www.irma-international.org/chapter/knowledge-creation/25310)

### The Alpha-Flow Approach to Inter-Institutional Process Support in Healthcare

Christoph P. Neumannand Richard Lenz (2012). *International Journal of Knowledge-Based Organizations* (pp. 52-68).

[www.irma-international.org/article/alpha-flow-approach-inter-institutional/72340](http://www.irma-international.org/article/alpha-flow-approach-inter-institutional/72340)

### Internet of Things for Travel Services

Serkan Polatand M. Fevzi Esen (2021). *Digital Technology Advancements in Knowledge Management* (pp. 167-186).

[www.irma-international.org/chapter/internet-of-things-for-travel-services/280298](http://www.irma-international.org/chapter/internet-of-things-for-travel-services/280298)

### Document Search Practices

Karen L. Corral, Ryan C. LaBrieand Robert D. St. Louis (2006). *Encyclopedia of Knowledge Management* (pp. 130-136).

[www.irma-international.org/chapter/document-search-practices/16942](http://www.irma-international.org/chapter/document-search-practices/16942)