A TECHNOLOGY REFERENCE MODEL FOR
CLIENT/SERVER SOFTWARE DEVELOPMENT

R C Nienaber
Department of Information Technology
Pretoria Technikon
Pvt Bag X680, Pretoria

Abstract

In today's highly competitive global economy, well-structured information resources, representing enterprise-wide information, are essential to the survival of an organization. The user needs an integrated view of the information in the organization. Technological development plays a major role in the changing nature of Information systems. The capabilities of micro computers brought independent processing power to the desktop of every employee in the organization, leading to a growing sophistication of end-users and redistribution of computer users in the enterprise.

Client/server applications combines new hardware and software technologies for maximum productivity. The client/server model seems to be the answer to incorporate the performance of mainframe programming with the versatility and numerous desktop applications used on personal computers in an organization in a cost-effective way. Client/server application development can be seen as a modular design, in which tasks are divided among client and server computers, placing each task on the platform where it can be handled most effectively.

This study will focus on various aspects of client/server systems. The rationale for developing client/server applications, as well as various trends in the industry are discussed as drivers for client/server systems. The purpose of the research was to compile a technology model for the development of client/server software. A comprehensive overview of the individual components of the client/server system are given, different methodologies, tools and techniques that can be used are reviewed, as well as key aspects and client/server specific design issues. The research is intended to create a road map in the form of a Technology Reference Model for Client/Server Software Development.