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Chapter VII

Training in Remote Database Server Administration

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ABSTRACT

This chapter introduces the development of a Unix Lab at the Department of Information Systems at California State University, Los Angeles. It also describes the lab's impact on our curriculum and the future plans for the inclusion of remote access and wireless technology.

INTRODUCTION

In January 2001, the Department of Information Systems at California State University, Los Angeles, received a $140,000 Workforce Enhancement grant from the State of California for improving instructional facilities. This chapter describes our experience in setting up a Unix Lab, incorporating it in our program, and our future plans for its expansion.

BACKGROUND

A comprehensive university, California State University, Los Angeles (CSLA), offers a broad range of liberal arts and professional programs. The college of Business and Economics is nationally accredited, at graduate and undergraduate levels, by AACSB . The college offers undergraduate programs leading to bachelor's degrees in Business Administration, Computer Information Systems (CIS), and Economics.

Traditionally, the information technology (IT) training and practices for students are based on the client technology of the client-server architecture (Watson, 2001). As the Internet shifts the emphasis from clients to servers and as the clients are more frequently implemented as personal servers, it becomes apparent that there is a need to enlarge the scope of the CIS curriculum by providing more server-focused courses.

Technological support of such server-focused training is fairly complex, as it goes to the core functions of the server operating system administration and to the core of the database server administration. Server-focused knowledge and skills are also at the center of e-business. This leads us to a new (and much in demand) category of *server-focused courses* at CIS department.

MISSION

The Unix Lab, an innovative academic resource for CIS students and faculty, is currently designed to provide server-focused training for Unix/Linux Administrators and Oracle DBAs. It is committed to (Djoudi, 2001):

- Supporting traditional and innovative curriculum content
- Advancing the learning and teaching experience in Unix, Linux, and Oracle in a predictable atmosphere of competence, control, and satisfaction
- Using information-based techniques with promising new capabilities for enhancing quality of IT education for CIS students, such as personal database servers, interactive learning, virtual classrooms, distance learning, and wireless technology

To accomplish this, the CIS Department established academic and business contact with similar labs at other universities and IT businesses from whom the experience, methodological materials, and advisement have been secured. Certificate of knowledge is a current trend in corporate training. The CIS Department is seeking educational and IT resources for the Unix Lab necessary to collaborate with recognized certificate programs such as Sun, Oracle, and Rational Software.

ARCHITECTURE

The Unix Lab (UL) consists of two branches — the *main* walk-in UL branch — Direct Access Unix Lab (DAUL) facility and UL extension — *Remote Access Unix Lab (RAUL)* facility at Academic Technology Support (ATS) department. Both, DAUL and RAUL, are built on Sun servers and Sun workstations (used as microservers) for server-centered and server-critical training, as illustrated in Figure 1.

RAUL is a new solution to the need for the server-focused training such as Oracle DBAs or system administrators on an individual basis: a dedicated microserver is assigned to a