

LMS Single Sign On Project Summary

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Warning:

Our Confidentiality Agreement prohibits the sharing of detailed project information

1. Business Objective

Provide an integrated *Single Sign-on* interface to the clients Learning Management System (LMS), thus leveraging their extensive deployment of Windows client machines across a multi-state wide area network (WAN) ranging from the East Coast to the Gulf of Mexico.

2. Project Overview

Our client, a holding company of numerous Gas Local Distribution Companies with over \$20 billion in assets and revenues in excess of \$6.031 billion, had purchased a Learning Management System (LMS) to facilitate the management of such corporate training records as CDLs, OSHA Compliance Training, Corporate Directives, etc. Further, the client was in the process of migrating to a single PeopleSoft HR solution to house all employee records. Also, the client desired the ability to maintain all network access in their MicroSoft Active Directory deployment but did not want the LMS bound to any particular AD (or PeopleSoft) implementation.

Our project objective was to develop a *Single Sign-On* set of components that would interface with the purchased LMS system. These components must be browser neutral (that is, work in IE, FireFox, etc), yet integrate with the installed MicroSoft network. Finally, the chosen application server was IBM WebSphere.

3. Solution

To accomplish the objective, we built components on top of [JCIFS](#) to provide the NTLM Challenge/Response functionality. Additional interface components were also built which managed employee details between PeopleSoft and the LMS.

Finally, a *user id mapping* layer was developed to map non-standard network ids to LMS standard student ids. The project was developed on an Apple PowerBook G4 running OSX 10.3 and deployed to an IBM WebSphere application server running on a Windows 2000 server.

4. Solutions Architecture

Technologies used to complete project objectives were:

- JavaTM Version 1.4.2 Mac OSX 10.3

- Java™ Version 1.4.1 Windows NT, Windows 2000
- Java™ custom objects
- IBM WebSphere 4.x
- JCIFS
- JUnit
- PeopleSoft 7.x
- OOA/OOD
- UML
- Argo UML
- XML
- CVS on Linux
- Apache Ant, Maven
- Eclipse
- Tigris Scarab