

# LEARNINGSERVER for .NET

## Implementation Guide

This document outlines recommended steps for planning and implementing a LearningServer solution. A successful installation and implementation requires the completion of technical, organizational, instructional, and graphical tasks. Many of these tasks are performed by different individuals and can be done independently of and simultaneously with other tasks. However, the key to it all is thoughtful planning and organization, and a firm grasp of what you want to accomplish and how you plan to accomplish it. IntraLearn Software Corporation (ISC) provides various professional service support options to assist clients in the planning, implementation, and maintenance of their LearningServer solutions.

### *PRE-INSTALLATION*

#### *Desired functions*

Determine which features will be needed for the solution. Please refer to the *LearningServer Product Features.pdf* for a complete breakdown on all available features. There are many features included within the default installation; others are available as add-on modules known as Collections. Contact your account representative for complete details on acquiring and implementing Collections.

#### *Integration with external sites*

Organizations not using SharePoint can integrate using LearningServer for .NET's web services API. LearningServer for SharePoint can be integrated into an existing SharePoint portal by utilizing web parts. Integration with external sites is based on synchronizing user accounts between LearningServer and the external application. Optionally, it can also include synchronizing online course data.

#### *Intranet vs. Internet*

LearningServer can be deployed as an intranet solution as well as an internet solution. There are no special configuration tasks required to implement either scenario. A simple URL is all that is needed to publish a LearningServer site to the users. LearningServer does not impact or require any of the following:

- Proxy server
- Specific ports
- Unique application pool (although recommended)

#### *Active Directory vs. Forms authentication*

LearningServer supports two (2) authentication models: Windows Authentication (Active Directory) and forms authentication. In both scenarios, user account information will be required to be stored in the LearningServer database. LearningServer's User module provides various methods for user account creation including: AD search, xml bulk load, new user form and self-enrollment. LearningServer's default model is user authentication.

### *Portal Manager*

Portal manager, an add-on collection module, provides the ability to setup independent web sites that can service different internal or external target audiences. Each learning web site supports its own users, courses, activity data and user interface style.

### *Scalability*

Scalability refers to how well the application performs as the amount of data and user activity grows over time. It is important to consider various factors when determining what type of server configuration will be necessary to support the intended audience. Factors include:

- Number of anticipated concurrent users
- Bandwidth requirements for courses
- Peak usage
- Use of collaboration and assessment modules

Implementing the correct server configuration will be a combination of knowing the answers to the above factors, dealing with budgetary constraints (if any), and in-house experience in setting up and supporting the appropriate single server or multi-server network architecture.

Without the necessary in-house system administration knowledge, a hosted solution would be a viable alternative. A hosted solution allows an organization to transfer the server management to an internet service provider (ISP) or application service provider (ASP). The service provider would be responsible for supporting the correct server configuration based on the chosen architecture model.

## *INSTALLATION*

### *Server configuration*

Ensure server(s) meet necessary requirements outlined *LearningServer System Requirements.pdf*. Minimum required software components that must be installed on the Windows Server 2003 prior to installing LearningServer include:

- Microsoft SQL Server 2005
- Internet Information Services (IIS) 6.0
- .NET Framework 3.0 or later

### *Hosted server configuration*

If the LearningServer installation will be hosted at an external service provider, arrangements must be made with the service provider to gain remote administrator access to the server. Access should be granted through the use of Microsoft's Remote Desktop Connection (RDC).

### *Setup.exe*

Installation is done by executing a standard installer process on the web server. The system administrator will be guided through the various installation steps. An accompanying readme.txt document details each step. The installer is located on the LearningServer CD.

## **CONFIGURATION**

### *Check browser settings*

Browsers must be configured to support JavaScript.

### *Confirm LearningServer site access*

Launch a browser and access the LearningServer site to confirm it is set up and configured correctly. Use the following default log-on account for access:

- User name: admin
- Password: welcome

The user name and/or password may be changed, if desired, once access is confirmed.

### *Create additional sites*

Launch a browser and access the Portal Manager (add-on collection module) site to confirm it is set up and configured correctly. Use the following default log-on account for access:

- User name: portal
- Password: welcome

The user name and/or password may be changed, if desired, once access is confirmed. Sites may be created at any time after the initial installation.

## **COURSES**

LearningServer enables organizations to import, deliver, and track standards-based online courseware developed using commercially available software or purchased from 3<sup>rd</sup> party content vendors. ISC provides standard support to help clients ensure a successful integration with their courseware.

### *Use of 3rd party content vendors*

Use of off-the-shelf courseware developed by content vendors within LearningServer is based on the use of the AICC HACP API or SCORM 1.2. LearningServer includes built-in support for many leading content vendors such as: SkillSoft, NETg, Mindleaders, Microsoft, and ElementK.

### *Need for 3rd party content-generation software*

Use of off-the-shelf software to develop interactive content is based on the use of the AICC HACP API or SCORM 1.2. LearningServer fully supports courseware developed using any software tool that generates the appropriate SCORM runtime api wrapper for the content such as: Macromedia's suite of e-Learning tools and Lectora.

### *Content location*

A determination should be made as to the location of the content. Options include storing the content on the local web server where LearningServer resides or using a remote content server. Courseware on a remote server should be accessible via a URL.

## **USERS**

Below is a list of the key roles that may be involved in an LearningServer implementation. The same person can have multiple administrative roles. Some roles are technical; others are not. Some simply require knowledge of how LearningServer works; others require hands-on skills with particular components of the product.

### *Project Manager*

Though not a formal role within LearningServer (in terms of a log-on account), this person has overall responsibility for the solution and is critical in making implementation decisions, establishing processes, assigning roles, and building organizational support and consensus.

### *Portal Manager*

This person is responsible for creating and managing the various sites created for each target audience. The portal manager would be responsible for defining the following information when creating a site:

- URL
- Site administrator account information
- User authentication method

As part of ongoing site management, the portal manager has full administrator privileges in each site, including: create new user accounts, import courses, run reports and the ability to customize the user interface.

### *Site Administrator*

This person is responsible for the overall management of the LearningServer site. Each site will have its own site administrator. The site administrator account is created when the site is created either through the installation or by the portal manager when creating a site. Tasks available to the site administrator include:

- Manage all user accounts, including deactivating accounts and bulk load
- User enrollment
- Define site properties such as: default language and custom navigation items
- Define any organizational hierarchy, if used
- Import courses
- Customize user interface

- Customize email templates
- Define curriculums and learning paths
- Create site announcements
- Generate and export usage reports

### *Instructor*

Instructors are responsible for leading courses and events and communicating directly with the learners. Responsibilities may include any of the following: creating or maintaining courses/content, creating assignments, administering exams, administering learner surveys, and scheduling and facilitating discussions and chat sessions. One or more instructors may exist for a LearningServer site. The site administrator creates instructor accounts and assigns courses or event sessions to instructors. Instructors can also import their own courses or create their own events.

### *Supervisor*

The system administrator can enable a registrar to run activity reports and maintain learner accounts (either or both functions). One or more supervisors may exist within a site. Different supervisors can be assigned according to groups of students, or enrollment levels, within the enrollment hierarchy. A supervisor can perform management and reporting tasks only for those enrollment levels to which he or she has been assigned.

Supervisors should be assigned to an appropriate level in the hierarchy. This will ensure restricted access to a specific group of users.

### *Learner*

A learner is any user taking course content on a LearningServer site. User registration to courses and events can be driven by a self-enrollment process, automated through the e-commerce component, or batch imported by the site administrator or Supervisor.

### *Web/graphic designer*

Optional. The web/graphic designer would be responsible for customizing the look and feel of the LearningServer site. Elements typically customized include: creating the organization logos and background images, customizing all function buttons, and setting cascading style sheets attributes.

### *Content manager*

Optional. The content manager would be responsible for establishing course categories and curriculum requirements, and ordering courses from LearningServer's Open Library and other third-party content suppliers.

### *Instructional/course designer*

Optional. The instructional/course designer would be responsible for defining the organization's pedagogical approach to online learning and establishing course design standards. People in this role are also responsible for importing, creating, and maintaining course content using LearningServer's **Learning** and **Assembler** modules.

## USER INTERFACE CUSTOMIZATION

Once a site has been created, the overall appearance may be customized. Elements that can be customized include:

- Images
- Page colors
- Screen text
- Site properties such as: self-enrollment and password lookup

For more information on customizing the appearance of the site, please refer to *CustomizeLearningServer.ppt*.

### Screen text

LearningServer enables organizations to localize the site by setting the preferred language. As an option, organizations can choose to change any/all screen text to further adapt the site to the organization's chosen vernacular. To do so, a custom language set must be created. Site administrators can easily create a custom language set through the LearningServer's **Language** module.

### Images

Images can be uploaded to LearningServer's /images folder via LearningServer's **Image Gallery** or by directly accessing the /images folder on the web server through FTP or mapped drives.

### Cascading Style Sheet (CSS)

Update the various classes of the Cascading Style Sheet through LearningServer's **Edit Styles** function. The style sheet has comments indicating where each class is used in the interface.

### Welcome page

Control the layout and appearance of the welcome page by editing the various components of the page using the **Edit Welcome Page** function.

## CUSTOM FUNCTIONALITY

There are various methods that can be used to enhance the LearningServer solution. Although many techniques are available, this document will highlight those methods most commonly employed by LearningServer users. Enhancing LearningServer by adding new functionality allows organizations to better meet their business objectives or those of their customers. Organizations may choose to add custom extensions themselves or contract ISC to provide such services. Contact ISC to find out more about adding custom functionality.

### Adding custom functionality

Create custom functions and integrate them within LearningServer through the use of the **Navigation** module. Custom functions can enable organizations to capture, track, and report data that falls outside of the standard LearningServer data model.

### *Linking from external web sites*

Integrate LearningServer to any external application (e.g., a corporate portal) by creating a single sign-on capability that allows access to LearningServer without requiring the user to provide credentials. A typical scenario would see a user log-on to an external application and, by passing certain credentials through an HTTP Get or Post function, be redirected to the My Learning page within LearningServer, therefore bypassing the log-on page.

### *Business logic*

Add database triggers to select tables to automate such functions as: email notifications and course registrations.

### *Web services*

Maintain user and course data from external applications by consuming LearningServer's web service API. The API has methods that allow you add, update, and delete user accounts; register users to courses and events; and generate user reports. Use of the web service allows organizations to synchronize their data typically maintained in ERP, HR systems with LearningServer. A detailed description of the web service API can be found in LearningServer's **Maintenance** module.