



Professional SharePoint Server 2010 Administration

Target Audience

IT Professionals, Administrators

Course Description

This accelerated 4-day course has been designed to teach experienced IT Professionals the essential skills required in administrating a SharePoint 2010 environment. You will quickly learn to install SharePoint Server 2010 and to create a new farm, Web applications and site collections and sites. The course explains SharePoint farm topologies and discusses strategies for scaling a farm by adding Web servers and application servers.

SharePoint Foundation introduces a new service application architecture which replaces the older SharePoint 2007 architecture for Shared Service Providers (SSPs). The course teaches you how to create and configure service applications so they provide access to share resources across Web applications and across farms. You learn how to configure services applications in a new farm using the new Farm Wizard. The course also make a point of teaching you how to create and configure SharePoint 2010 service applications by hand because you will frequently encounter scenarios in production environments where using the Farm Wizard is not appropriate.

The course covers new SharePoint 2010 security enhancements and introduces you to the concepts and terms associated with claims-based security. You will learn how to configure a Web application to support Windows authentication, claims-based authentication, forms-based authentication, anonymous access and SSL.

SharePoint farm administrators are often faced with critical decisions about how to manage large amounts of content across sites, site collections and content databases. The course covers capacity planning considerations and discusses using governance to control the use and growth of the content. Along the way you will learn about other critical SharePoint 2010 administration skills including scripting with Windows PowerShell, upgrading from SharePoint 2007, recovering lost content and planning for disaster recovery.

The real power of SharePoint 2010 lies within the service applications included with SharePoint Server 2010. The course covers how to configure the SharePoint Server Search Service to facilitate searching through SharePoint site content as well as external content. You will also learn to take full advantage of SharePoint 2010 by configuring other service applications including the Managed Metadata Services, the Business Data Connectivity Service, the Secure Store Service and the User Profile Service.

The course can be used to prepare students for the following Microsoft Certification Exams 70-667: TS: Microsoft SharePoint 2010, Configuring and 70-668: PRO Microsoft SharePoint 2010, Administrator.

Student Prerequisites

Attendees should have experience working as an IT professional in a Windows network environment and be familiar with installing and configuring Windows Server 2008, Active Directory and SQL Server. It is recommended (but not required) that attendees have user-level experience with SharePoint 2010 or a previous version.

Refer to the last page for details on the *Hands on Lab Student Workstation Requirements*.



Course Modules

The following modules are included in the course. All modules include a 2-5 exercise hands-on-lab (HOL) for students to perform in a lab environment that should take roughly 45-75 minutes each.

Getting Started with SharePoint 2010

This introductory module introduces students to the fundamental terminology and architecture of SharePoint Foundation and describes the new platform enhancements with the greatest impact on SharePoint administrators. The module also examines the different editions available for SharePoint Server 2010. The module concludes with a discussion of hardware and software requirements and using virtualization techniques to build testing and production environments.

- SharePoint Foundation Architecture and Terminology
- SharePoint 2010 Enhancements Targeting Administrators
- SharePoint Server 2010 Editions
- Hardware and Software Requirements
- Virtualization Considerations

Installing SharePoint Server 2010

This module explores the various topologies that can be used to build a SharePoint 2010 farm and introduces the new Service Application architecture of SharePoint Foundation. Students will learn how to choose between common deployment topologies when installing SharePoint Server 2010 in a variety of scenarios. The module also discusses best practice techniques for creating dedicated service accounts in Active Directory to provide the identity for various worker processes in a SharePoint 2010 farm.

- Understanding Farm Topologies
- Service Application Architecture
- Creating Dedicated Service Accounts in Active Directory
- Installing SharePoint Server 2010
- Creating the Farm and the Configuration Database

Configuring SharePoint Server 2010

The module explores the Central Administration Web Site and discusses how to configure SharePoint Server 2010 after initially creating a new farm. You will learn how to leverage Managed Service accounts and how to configure and schedule timer jobs. The module discusses when to use and when to not to use the Farm Configuration Wizard. The lecture and lab will show you how to create new service application instances by hand for scenarios where using the Farm Configuration Wizard is not appropriate.

- Getting Around in Central Administration
- Managed Service Accounts
- Managing Timer Jobs
- Using the Farm Configuration Wizard
- Configuring Service Applications by Hand

Configuring and Administrating Security in SharePoint 2010

This module examines the different styles of authentication supported in SharePoint 2010 and introduces terms and concepts of claim-based security. You will learn how to install certificates and configure SSL as well as how to configure Windows authentication, Claims-based authentication and forms-based authentication.

- Windows Authentication
- Claims-based Authentication
- Forms-based Authentication
- Intranet/Extranet/Intranet Considerations
- Configuring Certificates and SSL



Creating and Configuring Web Applications

This module discusses the techniques required to create and manage Web Applications. You will learn to configure Web Applications with host headers and alternate access mappings. The module also explains how to control resource usage within a Web Application by creating quotas and adjusting the new SharePoint Foundation thresholds for list throttling. The lecture will conclude with a discussion of configuring a Web Application to allow for anonymous access.

- Configuring DNS and Host Headers
- Creating New Web Applications
- Configuring Alternate Access Mappings
- List Throttling and Quotas
- Configuring Anonymous Access

Writing Administrative Scripts using Windows PowerShell

The lecture introduces students to the new world of Windows PowerShell scripting. You will learn how to call cmdlets and use pipelining from the interactive console windows. You will also learn how to write, test and debug Windows PowerShell scripts using the Windows PowerShell Integrated Scripting Environment (ISE). Finally, you will learn how to load the SharePoint PowerShell snap-in and call cmdlets provided by SharePoint 2010.

- Introduction to Windows PowerShell
- Windows PowerShell Console Window
- Writing Windows PowerShell Scripts
- Loading the SharePoint PowerShell Snap-in
- Writing Administrative Scripts for SharePoint 2010

Managing Site Collection Growth using a Governance Plan

This module explains how SharePoint sites are provisioned with respect to site collections, Web Applications and content databases. You will see how to create new sites using site templates included with SharePoint Foundation and SharePoint Server 2010 including Team site, Publishing site and Enterprise Wiki. The module discusses customizing sites through the browser by adding site elements such as pages, Web Parts, lists and content types. There will also be a discussion of site customization using the SharePoint Designer 2010 and configuring SharePoint Designer Settings to restrict SharePoint Designer access. The module concludes with a discussion of governance and capacity planning to manage the growth of content across site collections and content databases.

- Sites and Site Collections
- Site Templates in SharePoint 2010
- Customizing Sites using the Browser
- Customizing Sites with SharePoint Designer
- Enforcing Governance in Production Environments

Upgrading Farms from SharePoint 2007 to SharePoint 2010

This module focuses on what is required to upgrade SharePoint 2007 farms to SharePoint 2010. You will learn the difference between an in-place upgrade and database attach upgrade as well as the technique for running a hybrid approach. The module also introduces the concepts and mechanisms involved with the Visual Upgrade feature which allows users to begin accessing a SharePoint 2010 site using the older SharePoint 2007 user interface and then to migrate the new SharePoint 2010 user interface.

- Preparing a SharePoint 2007 Farm
- In-Place Upgrade
- Database Attach Upgrade
- Using a Hybrid Upgrade Approach
- Understanding Visual Upgrade



Configuring Search in SharePoint Server 2010

This module provides an overview of SharePoint 2010 search capabilities and discusses what search functionality is available under various SKUs. The instructor will compare and contrast SharePoint Search architecture with the architecture of FAST Search. You will also learn how to configure the Search Service Application and to create custom search pages within a site using the Search Web Parts included with SharePoint Server 2010.

- Overview of Search in SharePoint 2010
- SharePoint Search Architecture versus FAST Search
- Configuring the Search Service Application
- Creating Search Pages using the Search Web Parts
- Using Custom Ranking Models

Configuring SharePoint Server 2010 Service Applications

SharePoint Foundation and SharePoint Server 2010 provide much of their functionality through service applications. This module walks through configuring commonly-used service applications including the Managed Metadata Service, the Business Data Connectivity Service, the Secure Store Service and the User Profile Service.

- Creating Term Sets and Taxonomies with the Managed Metadata Service
- Creating External Connections using the Business Data Connectivity Service
- Creating Secure Application with the Secure Store Service
- Configuring the User Profile Service

Planning for Backup, Restore and Disaster Recovery

This module covers several different strategies for backing up and restoring content. The discussion begins with versioning and the Recycle Bin. Then you will learn to back up and restore site collections using Windows PowerShell scripts and by hand through Central Administration. The modules conclude with a discussion of how to prepare for disaster recovery so that you can restore a farm in the event of catastrophic server failure.

- Versioning and Restoring Documents
- Configuring Recycle Bin Behavior
- Site-Level Backup and Restore
- Preparing for Disaster Recovery
- Recovering the Farm After Server Failure

Health Monitoring and Optimization

This module explores common techniques used to monitor SharePoint 2010 farms and to optimize their performance. You will learn how to troubleshoot problems using the Developer Dashboard and how to read diagnostic information from ULS logs and the Logging Database. The module also discusses using the new Health Analyzer and configuring Usage Reporting.

- The Developer Dashboard
- Understanding ULS Logs
- The Logging Database
- Health Analyzer and Usage Reporting
- Timer Jobs and Server Affinity



Hands on Lab Work Station Requirements

SharePoint Server 2010 has steep hardware requirements. We recommend each student have their own virtual machine with everything required to do the lab installed on it including Windows Server 2008, SQL Server 2008, SharePoint Server 2010, Office 2010 and Visual Studio 2010. In our experience the following student workstation specifications provide the minimum acceptable experience for students:

- Dual Core CPU 1.6Ghz (or faster)
- 6GB RAM (or more)
- 100GB+ hard drive
- Windows Server 2008 host operating system with the Hyper-V Role enabled

Each student's virtual machine should be allocated 4GB of memory; anything less can result in a sub-optimal student experience just as anything higher improves the experience.

Due to Microsoft's software licensing requirements & limitations, Critical Path Training is not permitted to distribute/redistribute Microsoft software or virtual machines preinstalled with Microsoft SharePoint Server 2010. However we do provide a step-by-step document walkthrough on creating your own virtual machine for students where you can use your own software license keys or use the freely available trial versions (all links are included in the document). This document, **SharePoint Server 2010 RTM Virtual Machine Setup Guide**, is available from our site (www.CriticalPathTraining.com). Login (if you don't have one, create your own free login) and navigate to the **Members** section. Within this section you'll find the setup guide under the **Articles** section.

Answers to frequently asked questions:

- **Can't Critical Path Training provide a virtual machine with trial software?**
Unfortunately that is not permitted under Microsoft's licensing requirements & limitations.
- **Can I use VM Ware Workstation/Player?**
You can use any virtualization technology you choose, as long as it can run SharePoint Server 2010. Critical Path Training simply prefers Microsoft's Hyper-V technology.
- **Do I have to virtualize the environment or can I run everything native on the student's workstations?**
Virtualization isn't required; it is just the most common way to conduct SharePoint Server 2010 courses.