

# Course 10231B: Designing a Microsoft SharePoint 2010 Infrastructure



Length:	5 Days
Audience(s):	IT Professionals
Level:	300
Technology:	Microsoft SharePoint Server 2010
Type:	Course
Delivery Method:	Instructor-led (classroom)

## About this Course

This 5 day ILT course teaches IT Professionals to design and deploy Microsoft SharePoint 2010.

## Audience Profile

This course is intended for IT Professionals who use Microsoft SharePoint 2010 in a team-based, medium-sized to large environment. While they may have implemented a SharePoint deployment, they have limited experience in designing a SharePoint infrastructure.

They likely work as a senior administrator who acts as a technical lead over a team of administrators. Members of this audience should have at least 6 months experience with SharePoint 2010 (including pre-released versions of the product).

## Pre-Requisites

Before attending this course, students must have:

- At least 2 years experience administering, deploying, managing, monitoring, upgrading, migrating, and designing SharePoint servers
- At least one year's experience of mapping business requirements to logical and physical technical design
- Working knowledge of network design, including network security
- Completed course 10174A: TS ITPro: Configuring and Managing Microsoft SharePoint 2010, or have equivalent knowledge and experience



## At Course Completion

After completing this course, students will be able to:

- Describe the core methods for identifying business requirements and how these affect planning for a SharePoint 2010 and SharePoint Online deployment.
- Describe how to plan the service application architecture in SharePoint 2010 and SharePoint Online.
- Describe the principles of designing to maximize performance and capacity in a SharePoint 2010 deployment.
- Describe how to successfully plan the physical components of a SharePoint 2010 deployment.
- Describe the security architecture of SharePoint 2010 and SharePoint Online and the importance of creating a design that is based on the principle of least privilege.
- Explain how to select authentication methods in a SharePoint 2010 and SharePoint Online design.
- Describe how to match the managed metadata architecture in SharePoint 2010 and SharePoint Online to business requirements.
- Describe how to plan a social computing implementation of SharePoint 2010 and SharePoint Online that meets business requirements.
- Describe the architecture and topologies that are available to service a range of search requirements across business models.
- Describe the core functionality of Enterprise Content Management (ECM) in SharePoint 2010 and how it influences solution design.
- Describe core BI principles that will affect planning for SharePoint 2010.
- Describe how to plan for data governance in SharePoint 2010 and SharePoint Online.
- Describe the considerations for developing a maintenance and monitoring plan for SharePoint 2010 that also incorporates the technologies that support SharePoint 2010.
- Describe how to develop a business continuity plan for SharePoint 2010 and SharePoint Online.

## Course Outline

### Module 1: Designing a Logical Architecture

This module describes the function, components, and creation of a logical design and explains why this design is the first stage in any SharePoint 2010 and SharePoint Online solution.

This module also covers a general overview of Service Pack 1 implications for SharePoint 2010, and a basic overview of the main functional differences in SharePoint Online.

#### Lessons

- Identifying Business Requirements
- Overview of SharePoint 2010 Logical Architecture
- Documenting the Logical Architecture
- Understanding SharePoint Online
- SharePoint 2010 Service Pack 1



### Lab : Designing a Logical Architecture

- Mapping Business Requirements to a Logical Architecture Design
- Creating a Logical Architecture Diagram

#### After completing this module, students will be able to:

- Identify business requirements and describe how business requirements affect the logical architecture of a SharePoint 2010 deployment.
- Map business requirements to SharePoint 2010 architecture components.
- Explain the importance of documentation and describe the options for documenting logical architecture.
- Describe how to document a logical architecture design.
- Understand the main differences between SharePoint 2010 on-premise and SharePoint Online
- Understand how Service Pack 1 affects SharePoint 2010.

## Module 2: Planning a Service Application Architecture

This module describes the new service application architecture in SharePoint 2010 and explains how you should plan to deploy services across a range of farm topologies.

### Lessons

- Introduction to the Service Application Architecture in SharePoint 2010
- Service Application Architecture and Components
- Topologies for Service Applications
- Mapping Service Applications to Your Logical Architecture

### Lab : Planning a Service Application Architecture

- Identifying and Designing Service Applications
- Creating Service Applications and Assigning Proxy Groups

#### After completing this module, students will be able to:

- Describe the service application architecture in SharePoint 2010 and list the available service applications.
- Describe the components and options that are available in the service application architecture in SharePoint 2010.
- Describe some of the topology options for service applications and their respective benefits.
- Describe how to map and document business requirements to service applications.



## Module 3: Planning for Performance and Capacity

This module explains the importance of performance and capacity planning in SharePoint 2010. It also describes how to design a robust and high-performance deployment.

### Lessons

- Principles of Performance Planning
- Designing for Performance
- Principles of Capacity Planning
- Designing for Capacity

### Lab : Planning for Capacity and Performance

- Creating a Performance Plan
- Creating a Capacity Plan

### After completing this module, students will be able to:

- Describe the principles of designing to maximize performance.
- Create a SharePoint 2010 performance design that mitigates performance problems.
- Describe how capacity planning affects the design of a SharePoint 2010 implementation.
- Create a SharePoint 2010 farm design that caters for current and future capacity demands.

## Module 4: Designing a Physical Architecture

This module describes the key components of the physical architecture in SharePoint 2010, such as processor, memory, disk, and network access. It reviews how best to design a hardware and software infrastructure for each of the server types that you can deploy in a SharePoint farm

### Lessons

- Designing Physical Components for SharePoint Deployments
- Designing Supporting Components for SharePoint Deployments
- SharePoint Farm Topologies
- Mapping a Logical Architecture Design to a Physical Architecture Design

### Lab : Designing a Physical Architecture

- Planning the Physical Architecture
- Troubleshooting a Name Resolution Problem

### After completing this module, students will be able to:

- Describe the physical design requirements for SharePoint 2010.
- Describe the supporting requirements for a successful SharePoint 2010 physical design.
- Identify SharePoint farm topologies.
- Map a logical architecture design to a physical architecture design.



## Module 5: Designing a Security Plan

This module describes the security architecture of SharePoint 2010 and the considerations that you must include in your security planning. These considerations include management of security accounts, management of users and groups, and the reasons why you should implement secure transport protocols.

### Lessons

- Designing to Secure SharePoint 2010
- Planning for Service Accounts
- Planning Security for Users and Groups

### Lab : Designing a Security Plan

- Designing for Least-Privilege Security
- Identifying and Resolving Potential Security Issues
- Granting Read Access to the Production Auditors Group

### After completing this module, students will be able to:

- Describe the security architecture in SharePoint 2010 and the importance of the principle of least privilege.
- Identify and plan security for core service accounts.
- Describe the considerations for implementing security for users and groups.
- Explain the options for implementing Secure Sockets Layer (SSL) in SharePoint 2010.

## Module 6: Planning Authentication

This module discusses the available authentication options for SharePoint 2010 and describes how to plan for these in the new, claims-based security architecture.

### Lessons

- Overview of Authentication
- Introduction to Claims-based Authentication
- Selecting Authentication Methods

### Lab : Planning Authentication

- Planning Authentication for Contoso, Ltd.
- Enabling Claims-Based Authentication

### After completing this module, students will be able to:

- Describe the different authentication and authorization methods that SharePoint 2010 uses.
- Describe claims-based authentication in SharePoint 2010.

- Select the most appropriate authentication method for a given SharePoint 2010 design.



## Module 7: Planning Managed Metadata

This module describes the function of managed metadata and explains how you can best use the Managed Metadata Service to deliver business benefits.

### Lessons

- Metadata in SharePoint 2010
- Overview of Content Types
- Mapping Managed Metadata to Business Requirements

### Lab : Planning Managed Metadata

- Designing Content Types and a Term Set Framework
- Creating the Managed Metadata Service Application
- Importing Term Sets
- Publishing a Content Type

### After completing this module, students will be able to:

- Describe the function of managed metadata in SharePoint 2010.
- Describe the function of content types and explain how to apply them to business requirements.
- Match the managed metadata architecture in SharePoint 2010 to business requirements.

## Module 8: Planning Social Computing

This module explains how SharePoint 2010 can deliver social computing services to an organization. It focuses particularly on the planning that you require to deploy the User Profile Service to maximize social computing benefits.

### Lessons

- Overview of Social Computing
- Planning for Social Computing Functionality in SharePoint 2010
- Planning for the User Profile Service

### Lab : Planning Social Computing

- Planning User Profiles
- Configuring User Profile Synchronization

### After completing this module, students will be able to:

- Describe the social computing functionality that is available in Microsoft SharePoint 2010.
- Describe how the social computing functionality in SharePoint 2010 meets business needs.
- Plan user profiles for providing social computing functionality.



## Module 9: Designing an Enterprise Search Strategy

This module describes the architectures and topologies that are available when you plan to deploy enterprise search in your organization. This includes discussions about both SharePoint 2010 search and Microsoft FAST Search Server 2010 for SharePoint.

### Lessons

- Overview of SharePoint 2010 Search Architecture
- Search Topologies in SharePoint 2010
- Capacity and Performance Planning for Search
- Mapping Business Requirements to Search Design

### Lab : Designing an Enterprise Search Strategy

- Planning for Search
- Planning Physical Topology
- Creating Search Service Applications
- Configuring Search

### After completing this module, students will be able to:

- Describe the search architecture and process in SharePoint 2010.
- Describe the topologies that are available in SharePoint 2010 to service a range of search requirements across business models.
- Plan and document enterprise search for capacity and performance.
- Describe how to map business requirements to the SharePoint Enterprise and FAST search architectures.

## Module 10: Planning Enterprise Content Management

This module explains how the core ECM functionality in SharePoint 2010 may influence your document and records management design. It also focuses on the planning for enterprise Web content management.

### Lessons

- Overview of Enterprise Content Management
- Planning Tasks for Content Management
- Planning Features and Policies for Content Management
- Planning Web Content Management

### Lab : Planning Enterprise Content Management

- Developing a Content Management Plan
- Enabling and Configuring Document IDs and Content Organizer
- Configuring Retention Policies and Records Management



**After completing this module, students will be able to:**

- Describe the core functionality of ECM in SharePoint Server 2010 that influences your design.
- Describe the major steps that you should take when you plan a content management solution in SharePoint Server 2010.
- Describe the considerations for planning features and policies for content management for SharePoint Server 2010.
- Describe how to plan for Web content management in SharePoint Server 2010.

## **Module 11: Planning a SharePoint 2010 Implementation of a Business Intelligence Strategy**

This module explains how you can integrate BI functionality in SharePoint 2010 into an overall enterprise BI strategy.

### **Lessons**

- Overview of Business Intelligence Principles
- Planning Data Access by Using BCS
- Planning SharePoint 2010 Business Intelligence Solutions
- Planning for Reporting and Presentation

### **Lab : Planning a SharePoint 2010 Implementation of a Business Intelligence Strategy**

- Planning the SharePoint Business Intelligence Implementation
- Creating a BI Center and Enabling Excel Services

**After completing this module, students will be able to:**

- Describe the principles of BI.
- Describe how to plan for data access by using BCS.
- Describe data and security planning concerns for key BI tools.
- Describe the roles of SQL Server Reporting Services and the BI Center in reporting and presenting BI components.

## **Module 12: Developing a Plan for Governance**

This module describes the concepts that are associated with corporate governance for SharePoint 2010. Based on this knowledge, the module helps you to plan for governance in a SharePoint 2010 farm.

### **Lessons**

- Overview of Governance
- Key Elements of a Governance Plan
- Planning for Governance in SharePoint Server 2010
- Governance Implementation Features and Policies in SharePoint Server 2010



### **Lab : Developing a Plan for Governance**

- Creating a Governance Plan
- Implementing the Governance Plan

#### **After completing this module, students will be able to:**

- Describe the concept of governance.
- Describe the key elements of a governance plan.
- Plan for governance in SharePoint Server 2010.
- Describe the governance implementation features and policies in SharePoint Server 2010.

### **Module 13: Designing a Maintenance and Monitoring Plan**

This module describes the essential principles of maintenance and monitoring and maps these against the functionality that is available in SharePoint 2010. It then uses this framework to identify how best to develop a maintenance and monitoring plan for SharePoint 2010.

#### **Lessons**

- Principles of Maintenance and Monitoring
- Creating a Maintenance Plan for SharePoint 2010
- Creating a Monitoring Plan for SharePoint 2010
- Considerations for the Maintenance and Monitoring of Associated Technologies

### **Lab : Designing a Maintenance and Monitoring Plan**

- Resolving an Error in SharePoint 2010
- Splitting a Content Database

#### **After completing this module, students will be able to:**

- Describe the essential principles of a maintenance and monitoring plan.
- Create a maintenance plan for SharePoint 2010.
- Create a monitoring plan for SharePoint 2010.
- Describe the considerations for developing a maintenance and monitoring plan that incorporates technologies that support SharePoint 2010.



## Module 14: Planning Business Continuity

This module describes the components of an effective business continuity plan. It also explains how to map functionality and components in SharePoint 2010 against business requirements for different business continuity metrics.

### Lessons

- Overview of Business Continuity Management
- Developing a Business Continuity Plan for SharePoint Server 2010
- Creating a Backup and Restore Plan for SharePoint Server 2010

### Lab : Planning Business Continuity

- Creating a Backup and Restore Plan
- Testing the Recovery Process

### After completing this module, students will be able to:

- Describe business continuity management.
- Describe how to develop a business continuity plan for SharePoint Server 2010.
- Describe how to create a backup and restore plan for SharePoint Server 2010.

## Module 15: Planning for Upgrade to SharePoint 2010

This module reviews the options for performing an upgrade to SharePoint 2010 from a range of previous versions. It also outlines the milestones that are necessary to develop a successful upgrade plan.

### Lessons

- Identifying Upgrade Scenarios
- Planning Your Upgrade
- Upgrade Considerations

### Lab : Planning for Upgrading to SharePoint 2010

Creating an Upgrade and Migration Plan

### After completing this module, students will be able to:

- Describe the range of upgrade requirement options and the available upgrade methods.
- Describe how to plan an upgrade to SharePoint 2010.
- Explain the key upgrade considerations.



## Module 16: Planning for SharePoint Online

This module describes the key differences between an on-premise deployment of SharePoint 2010, and SharePoint Online. This section also outlines topics of administration as it relates to planning for SPO, as well as planning for hybrid deployments of both SharePoint 2010 and SharePoint Online.

### Lessons

- SharePoint Online Planning
- Planning for Administration of SharePoint Online
- Hybrid Deployments

### After completing this module, students will be able to:

- Describe the key differences between SharePoint Online and an on-premise deployment of SharePoint 2010.
- Describe the main administrative differences important to planning a deployment on SharePoint Online.
- Explain hybrid deployments of both SharePoint Online and an on-premise deployment of SharePoint 2010.