

# Implementing and Administering an Enterprise SharePoint Environment

There are numerous planning and management issues that your team needs to address when deploying SharePoint. This process can be simplified and you can ensure a successful implementation of SharePoint by having your IT and Windows Server team participate in this workshop. The best results and most successful SharePoint implementation require that team members in different roles understand what will be required from a technical perspective.

In this 5-day workshop we will explore every aspect of managing a SharePoint 2007 Server farm. This includes integration with applications like IRM, ForeFront, and Performance Point. Learn the many ways to back up and restore SharePoint environments; configure multiple server farms and all of the options in Central Administration.

## Who Should Attend

Intended for SharePoint administrators, Windows Server administrators, SQL Server DBA's, project managers and those who will play a critical role in the planning, deployment and management of Information solutions using Microsoft SharePoint Server.

## Prerequisites

Experience in implementing, managing, and supporting a Microsoft Windows SharePoint Services 3.0 environment. Basic knowledge of Windows SharePoint Services and Microsoft Office SharePoint Server 2007 interoperability. At least 2 years of experience implementing, managing, and supporting Microsoft Windows Server 2003. At least 2 years of experience implementing, managing, and supporting Internet Information Services (IIS). Working knowledge of networking, for example, TCP/IP and Domain Name System (DNS).

## Workshop Objectives:

- ▶ Describe Microsoft Office SharePoint Server 2007.
- ▶ Plan and design a Microsoft Office SharePoint Server 2007 implementation.
- ▶ Deploy Microsoft Office SharePoint Server.
- ▶ Administer Microsoft Office SharePoint Server 2007.
- ▶ Implement a portal solution with Microsoft Office SharePoint 2007.
- ▶ Implement a content management solution with Microsoft Office SharePoint Server 2007.
- ▶ Implement intelligence solution with Microsoft Office SharePoint Server 2007.
- ▶ Implement a search and indexing solution.
- ▶ Maintain and optimize Microsoft Office SharePoint Server 2007.

# Implementing and Administering an Enterprise SharePoint Environment

## I. Overview

### (a) What is SharePoint?

- Discussion: What Do You Think SharePoint Is?
- What is SharePoint 2007?
- SharePoint Services
- Why SharePoint 2007?
- Common Collaboration Issues
- Business Needs
- SharePoint 2007 Benefits
- Collaboration Features
- Document Management Features

### (b) What's New in SharePoint 2007?

- What's New in SharePoint 2007
- New Features

## II. Installing

### (a) Installing SharePoint

- Hardware Requirements
- Software Requirements
- Security Requirements
- Installation
- Installation Ordering
- Configuration
- Configuration Wizard

### (b) SharePoint Farms

- Building a Farm
- SharePoint Server Roles
- Application Requirements

#### **Lab: Installing.**

- Install WSS
- Install MOSS
- Detach/Attach to SharePoint Farm

## III. SharePoint Architecture

#### **Lab: Site Definitions.**

- Create One of Each WSS/MOSS Site Definition

#### **Lab: SharePoint Architecture.**

- Explore a SharePoint Config File

#### **Lab: SharePoint Architecture.**

- Learn Content Database structure
- Use SQL Profiler to Reverse Engineer the Web Front End and Stsadm

#### **Lab: SharePoint Architecture.**

- Create a Customized Page
- Analyze a Customized Page

#### **Lab: 12 Hive.**

- Explore the 12 Hive

## IV. Stsadm

- (a) Overview
- (b) Commands
- (c) Extending

#### **Lab: Stsadm.**

- Use Stsadm Command Line Tool

#### **Lab: Extend Stsadm.**

- Review the Stsadm Commands xml File
- Extend Stsadm

## V. SharePoint Services

### (a) Services

- Services
- Document Conversions Launcher
- Document Conversions Load Balancer
- Excel Calculation Services
- Officer SharePoint Server Search
- Windows SharePoint Services Search
- Windows SharePoint Services Web Application

#### **Lab: SharePoint Services.**

- Explore the SharePoint Services

## VI. PowerShell

- (a) Overview
- (b) Commandlets
- (c) PowerShell Variables
- (d) Using With SharePoint

### Lab: Install PowerShell.

- Install PowerShell
- PowerShell Basics —
- Commandlets
- Variables
- Arrays
- ‘While’ Loop
- ‘If’ Statement
- Create an Object
- Static Properties

### Lab: PowerShell With SharePoint.

- Load SharePoint DLL into PowerShell
- Set PowerShell Execution Policy
- Enumerate Webs
- Create a Site with PowerShell
- Create/Update an Item with PowerShell
- Backup SharePoint with PowerShell

## VII. General Operations Tasks

- (a) Email Settings
  - Overview
  - Outgoing Email
  - Incoming Email
  - Distribution Groups
- (b) Migrating File Shares
  - Overview
  - Issues
- (c) Master Site Directory
  - Overview
- (d) Alternate Access Mappings
  - Overview
  - Scenarios
  - ISA Server 2006
- (e) External Service Connections
  - Records Center
  - HTML Viewer
  - Document Conversions
- (f) Language Packs
  - Language Pack Overview
  - Downloading

Installing  
Creating a Site  
(g) Features and Solutions

- Features Overview
- Types of Features
- Feature Scopes
- Feature Dependencies
- Feature Sequence
- Feature Localization
- Feature Event Receivers
- Feature Stapling
- Creating Features
- Deploying Features
- Activating/Deactivating Solutions

### Lab: Email Settings.

- Configure the Outgoing Email Settings
- Load Balance Email Load
- Configure the Incoming Email Settings

### Lab: Distribution Groups.

- Create Active Directory Distribution Groups

### Lab: Migration File Shares.

- Migrate a File Share
- Blocked File Types
- NTFS Permissions

### Lab: Master Site Directory.

- Setup the Master Site Directory

### Lab: Alternate Access Mappings.

- Configure Alternate Access Mappings
- Test Alternate Access Mappings

### Lab: External Service Connections.

- Records Center
- Document Conversion

### Lab: Features and Solutions.

- Features
- Solutions

## VIII. Information Rights Management

- (a) Information Rights Management

<p>(b) SharePoint IRM</p> <ul style="list-style-type: none"> <li>Overview</li> <li>Configuring</li> <li>Troubleshooting</li> </ul> <p><b>Lab: Information Rights Management.</b></p> <ul style="list-style-type: none"> <li>Install Information Rights Management (IRM)</li> <li>Configure IRM</li> <li>Use IRM</li> </ul> <p><b>IX. AntiVirus</b></p> <p>(a) Microsoft ForeFront</p> <ul style="list-style-type: none"> <li>Overview</li> <li>ForeFront for SharePoint</li> <li>Installing</li> <li>Configuring SharePoint</li> <li>Configuring ForeFront</li> </ul> <p><b>Lab: Forefront.</b></p> <ul style="list-style-type: none"> <li>Install Microsoft Forefront</li> <li>Configure Microsoft ForeFront</li> </ul> <p><b>X. Information Management Policy</b></p> <p><b>Lab: Information Management Policy.</b></p> <ul style="list-style-type: none"> <li>Create a Basic Policy (Manual)</li> <li>Use a Policy</li> </ul> <p><b>XI. Single Sign On</b></p> <p>(a) Overview</p> <p>(b) Setup</p> <p>(c) Configuring</p> <p>(d) Using</p> <p>(e) Applications Scenarios</p> <p><b>Lab: Single Sign On.</b></p> <ul style="list-style-type: none"> <li>Learn How to Configure Single Sign On</li> <li>Program Web Parts to Use Single Sign On</li> </ul> <p><b>XII. Logging Settings</b></p>	<p><b>Lab: Logging Settings.</b></p> <p>Learn to Debug SharePoint via Log Files</p> <p><b>XIII. Usage Analysis Processing</b></p> <p>(a) Overview</p> <p>(b) Configuring</p> <p>(c) Architecture</p> <p>(d) Reports</p> <p>(e) Trouble Shooting</p> <p>(f) Custom Log Processing</p> <p><b>Lab: Usage Analysis Processing.</b></p> <p>Enable Usage Analysis Processing (UAP)</p> <p>Use UAP</p> <p><b>XIV. Content Deployment</b></p> <p><b>Lab: Content Deployment.</b></p> <ul style="list-style-type: none"> <li>Setup Content Deployment Path and Jobs</li> <li>Quick Deployment</li> <li>Debug Content Deployment</li> </ul> <p><b>XV. Backup/Restore</b></p> <p>(a) Backup Techniques</p> <ul style="list-style-type: none"> <li>Things to Backup</li> <li>Ways to Backup</li> <li>Central Administration Backup</li> <li>SQL Server Backup</li> <li>Stsadm Backup</li> <li>Site Template Backup</li> <li>SharePoint Designer</li> <li>List Template Backup</li> <li>Item Level Backup</li> <li>Recycle Bin</li> <li>Event Receivers</li> <li>Gotchas to Backups</li> </ul> <p>(b) Disaster Recover Techniques</p> <ul style="list-style-type: none"> <li>Database Redundancy</li> <li>SQL Server Clustering</li> <li>Comparing Solutions</li> <li>Data Protection Manager 2007</li> </ul> <p>(c) Restore Techniques</p> <ul style="list-style-type: none"> <li>Restoring</li> </ul> <p><b>Lab: Backup Central Administration.</b></p> <ul style="list-style-type: none"> <li>Use Central Administration to Backup and Restore (Farm)</li> </ul>
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**Lab: Backup SQL Server.**  
Use SQL Server to Backup SharePoint

**Lab: Backup Stsadm.**  
Use Stsadm to Backup and Restore a Farm  
Use Stsadm to Export a Site Collection  
Use Stsadm to Export a Single Site

**Lab: Backup SiteList Template.**  
Create a List Template  
Create a Site Template  
Create a Site from the New Site Template  
Create a List from the New List Template

**Lab: Backup SharePoint Designer.**  
SharePoint Designer Backup (Web Package)  
SharePoint Designer Backup (Content Migration)  
SharePoint Designer Backup (Site Template)

## XVI. Timer Jobs

- (a) Timer Service
- (b) Timer Job
- (c) SPJobDefinition Class
- (d) WSS Timer Jobs
- (e) MOSS Timer Jobs

**Lab: Timer Jobs.**  
Explore SharePoint Timer Jobs  
Disable a Job  
Disable the Timer Service

## XVII. Shared Services Provider

- (a) Shared Services Overview
- (b) Shared Services Components
- (c) Shared Services Features
- (d) Life without SSP
- (e) Life with SSP
- (f) Installing

**Lab: Shared Services Provider.**  
Create a Shared Services

Provider (SSP)  
Configure Multiple SSPs  
Configure Global "My Sites"

## XVIII. Application Security

- (a) SharePoint Security  
Farm Admin vs. Server Admin  
Authentication methods  
Windows Groups  
Service Accounts  
Changing Accounts/Passwords  
SharePoint Default Groups  
Site Permissions  
Security Trimmed Interface  
Web Application Policies  
Web Parts  
Excel Services  
Business Data Catalog
- (b) Custom Authentication  
Overview  
Configuring
- (c) Code Access Security  
Overview  
SharePoint CAS Policies
- (d) Securing Communications  
IPSec  
SSL

## Lab: Application Security.

Application Pools  
Web Application Security  
Site\List\Item -level Security  
SSL Security

## Lab: Custom Authentication.

Change the default authentication method of SharePoint to use a custom membership provider (ASP.NET 2.0).

## XIX. InfoPath Services

- (a) InfoPath 2007  
InfoPath 2007  
New Features  
Forms Publishing  
Importing Forms
- (b) InfoPath and Windows Workflow  
Windows Workflow Foundation  
InfoPath and WWF
- (c) InfoPath Forms Services

- IFS Architecture
- Runtime Architecture
- Form Templates
- Uploading Forms
- Unsupported Features
- Upgrading/Quiescing Forms
- IFS Settings
- Forms Integration with ASP.NET

(d) Best Practices

- Best Practices

**Lab: InfoPath Services.**

- Review MOSS Forms
- Publish/Upload a Form to Forms Library
- Verify/Upload/Activate a Form with IFS

## XX. Business Data Catalog

(a) Business Data Catalog Overview

- Planning Business Data Catalog
- Application Definition Files
- Business Data Catalog Web Parts
- Business Data Catalog Indexing
- Business Data Catalog
- Authentication
- Business Data Catalog with Single Sign on
- Business Data Catalog Permissions

**Lab: Business Data Catalog.**

- Import an Application Definition File
- Utilize BDC Web Parts
- Utilize Filter Web Parts

**Lab: BDC Application Definition Files.**

- Review BDC Schema
- Create a BDC File (Manually)
- Create a BDC File (Code Gen)

**Lab: BDC Permissions.**

- DataSource Permission Errors
- Application Permission Errors
- Entity Permission Errors

**Lab: BDC Authentication.**

- Modify BCD to Use Database Credentials

- Modify BDC to Use Single Sign On
- Custom Single Sign On Solution

**Lab: BDC Profiles.**

- Search and BDC Integration
- BDC Entity Profile

## XXI. Search

(a) Search Overview

- Search Overview
- Microsoft Search Products
- Search Architecture
- Content Sources
- Crawl Process
- Crawl Schedules
- Crawl Schedule Best Practices
- Crawling Content
- Crawl Rules
- Search Scopes
- File Types
- Default Access Account
- Query Crawl Logs

(b) Performing Searches

- Keyword Search
- Full Text Search
- URL Query
- SPQuery
- CAML Query

(c) Tuning Search

- Thesaurus
- Noise Words
- Relevance
- Improving relevance
- Best Bets
- Search Web Parts
- Search Results Customization

(d) Extending Search

- Search Terms
- Protocol Handlers
- IFilters
- ISemesters
- IWordBreakers

**Lab: Search.**

- Create Content Source
- Create Crawl Schedules
- Crawl All Scopes
- Create Crawl Rule
- Create Search Scopes
- Add a File Type

Set Default Access Account  
Query Crawl Logs

**Lab: Tuning Search.**  
Relevance  
Keyword and Best Bets  
Thesaurus  
Noise Words

**Lab: Customizing Search.**  
Customize Search Results

## XXII. Excel Services

- (a) Excel Services Trusted Locations
- (b) Shared Data Connections
- (c) User Defined Functions
- (d) Excel Services isThreading
- (e) Excel Services Web Parts
- (f) Excel Services Object Model/Web Service

**Lab: Excel Services.**  
Learn to use Excel Services  
Create/Publish to Excel Services  
Configure Excel Services  
Shared Data Connections  
Single Sign On Data Connections

## XXIII. User Profiles My Sites

- (a) User Profile Overview  
User Profiles  
My Site
- (b) User Profile Settings  
Profile Properties  
Importing Profile Data  
Data Connections  
Editing Profile Data  
Security / Policies
- (c) My Sites  
My Site Overview  
My Profile  
Colleagues / My Workgroup  
Colleague Tracking / In Common With  
Memberships  
Organizational Hierarchy  
Personal vs. Shared Views  
My Blog  
My Site Web Parts

My Links

**Lab: User Profiles.**  
Configure User Profiles  
(Active Directory)  
Configure Import  
Connections  
Configure Profile Properties

**Lab: My Sites.**  
Create Your My Site  
Your Profile  
Colleagues  
Colleagues — Tracking Changes  
Explore Memberships  
Explore In Common With Documents  
Configuring My Calendar Web Part  
RSS Viewer  
Personal vs. Shared Views  
My Links

## XXIV. Performance Optimization

- (a) Capacity Planning  
Farm Member Server Hardware  
Content Databases  
Metrics  
SharePoint Maximums  
System Center Capacity Planner
- (b) Performance Optimization Techniques  
ASP.NET Caching  
Simple Recovery Mode  
Database File Design  
Database memory  
IIS Application Pool Unload  
Start-up/Warm-up Scripts  
Indexed Views  
Network Performance  
System Center Operations Manager

**Lab: Performance Optimization.**  
Database Tuning (Recovery Mode)  
Database Tuning (TempDB)  
Database Tuning (Indexes)  
Warm-up Scripts and Application Pool Timeout