Course 20331B: Core Solutions of Microsoft® SharePoint® Server 2013 *NEW!*

Five Days, Instructor-Led

About this course

This course will provide you with the knowledge and skills to configure and manage a Microsoft® SharePoint Server 2013 environment. This course will teach you how to configure SharePoint Server 2013, as well as provide guidelines, best practices, and considerations that will help you optimize your SharePoint server deployment.

This is the first in a sequence of two courses for IT Professionals and will align with the first exam in the SharePoint Server 2013 IT Pro certification.

Audience profile

The course is targeted at experienced IT Professionals interested in learning how to install, configure, deploy and manage SharePoint Server 2013 installations in either the data center or the cloud.
Students typically have more than four years of hands-on experience* planning and maintaining SharePoint and other core technologies upon which SharePoint depends, including Windows Server 2008 R2 or later, Internet Information Services (IIS), SQL Server 2008 R2 or later, Active Directory, and networking infrastructure services.

The minimally qualified candidate typically:
*   Is an IT professional who plans, implements, and maintains a multi-server deployment of SharePoint Server 2013.
*   Has a working knowledge of, and preferably hands-on experience, with SharePoint Online.
*   Has broad familiarity with SharePoint workloads.
*   Have experience with business continuity management, including data backup, restoration, and high availability.
*   Has experience with authentication and security technologies
*   Has experience with Windows PowerShell.
*   Hands-on experience or job experience is considered a solutions-based role where the candidate works within the solutions space covered by SharePoint, working on multiple solutions in the SharePoint space that includes document management, content management, and search.

The secondary audience for this course are Business Application Administrators (BAAs) who are engaged in the administering line-of-business (LOB) projects in conjunction with internal business customers would benefit from an understanding of how to manage SharePoint Server 2013.

Administrators who are entirely new to SharePoint will gain some benefit from the course, but it is recommended that they familiarize themselves with the basic concepts of the SharePoint platform before attending.

At Course Completion

After completing this course, students will be able to:
*   Describe the key features of SharePoint 2013
*   Design an information architecture

- Design logical and physical architectures
- Install and configure SharePoint Server 2013
- Create web applications and site collections
- Plan and configure service applications
- Manage users and permissions
- Configure authentication for SharePoint 2013
- Secure a SharePoint 2013 deployment
- Manage taxonomy
- Configure user profiles
- Configure enterprise search
- Monitor and maintain a SharePoint 2013 environment

Pre-requisites

An ideal candidate will have at least one year of experience with deploying and administering multiple SharePoint 2010 farms across a large enterprise. Because many customers skipped upgrading from SharePoint 2007, a candidate can also have at least 2 years of experience with SharePoint 2007 and knowledge of the differences between 2007 and 2010, particularly the Service Application model. A candidate can demonstrate the following skills:

- Software management in a Windows 2008 R2 enterprise server or Windows Server 2012 environment.
- Deploying and managing applications natively, virtually and in the cloud.
- Administering Internet Information Services (IIS).
- Configuring Active Directory for use in authentication, authorization and as a user store.
- Managing an application remotely using Windows PowerShell 2.0.
- Connecting applications to Microsoft SQL Server.
- Implementing Claims-based Security.

Course Outline

Module 1: Creating Web Applications and Site Collections

After installing your Microsoft SharePoint Server 2013 farm, you are ready to begin deploying sites and content, such as an organizational intranet site.

In this module, you will learn about the key concepts and skills related to the logical architecture of SharePoint including web applications, site collections, sites, and content databases. Specifically, you will learn how to create and configure web applications and to create and configure site collections.

Lessons

- Creating Web Applications
- Configuring Web Applications
- Creating and Configuring Site Collections

Lab : Creating and Configuring Site Collections

- Creating a Web Application
- Configuring a Web Application
- Creating Site Collections
- Creating Site Collections in New Content Databases
- Creating a Warm-up Script

Lab : Creating and Configuring Web Applications

- Creating a Web Application

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- Configuring a Web Application
- Creating Site Collections
- Creating Site Collections in New Content Databases
- Creating a Warm-up Script

After completing this module, students will be able to perform the following tasks in SharePoint 2013:

- Create web applications.
- Configure web applications.
- Create site collections.
- Configure site collections.

Module 2: Planning and Configuring Service Applications

Service applications were introduced in Microsoft SharePoint Server 2010, replacing the Shared Service Provider architecture of Microsoft Office SharePoint Server 2007. Service applications provide a flexible design for delivering services, such as Managed Metadata or PerformancePoint, to users who need them. Microsoft SharePoint Server 2013 includes more than 20 services, some of which are new to this version, whereas others are enhanced. In planning and configuring service applications, it is important that you understand the dependencies, resource usage, and business requirements for each.

This module reviews the basic service application architecture, the essentials of planning your service application deployment, and the configuration of your service applications. This module does not discuss sharing, or federation, of service applications. This is covered in more detail in course 20332A: Advanced Solutions of Microsoft SharePoint Server 2013.

Lessons

- Introduction to Service Application Architecture
- Creating and Configuring Service Applications

Lab : Planning and Configuring Service Applications

- Provisioning a Managed Metadata Service Application with Central Administration
- Provisioning a Managed Metadata Service Application with Windows PowerShell
- Configuring Service Applications for Document Conversions
- Configuring Service Application Proxy Groups

After completing this module, students will be able to:

- Explain the key components and topologies for SharePoint Server 2013 service application architecture.
- Describe how to provision and manage SharePoint 2013 service applications.

Module 3: Managing Users and Permissions

Many organizations need to store sensitive or confidential information. Microsoft SharePoint Server 2013 includes a complete set of security features, which you can use to help ensure that users with the appropriate rights and permissions can access the information they need, can modify the data they are responsible for, but that they cannot view or modify confidential information, or information that is not intended for them. The SharePoint 2013 security model is highly flexible and adaptable to your organization's needs.

In this module, you will learn about the various authorization and security features available in SharePoint 2013 to help you maintain a secure SharePoint environment. Specifically, you will be learning about authorization and permissions in SharePoint 2013, and how to manage access to content in SharePoint 2013.

Lessons

- Authorization in SharePoint 2013
- Managing Access to Content

Lab : Securing Content in SharePoint Sites

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- Creating a Web Application Policy
- Creating and Managing SharePoint Groups
- Creating Custom Permission Levels
- Managing Permissions and Inheritance
- Managing Site Collection Security
- Enable anonymous access to a site

Lab : Managing Users and Groups

- Creating a Web Application Policy
- Creating and Managing SharePoint Groups
- Creating Custom Permission Levels
- Managing Permissions and Inheritance
- Managing Site Collection Security
- Enable anonymous access to a site

After completing this module, students will be able to:

- Understand and manage authorization and permissions in SharePoint 2013.
- Manage access to content in SharePoint 2013.

Module 4: Describe the key features of SharePoint 2013

SharePoint 2013 is a document storage and collaborative working platform that offers many benefits to organizations. SharePoint deployments may take many different forms in scope, where a deployment may be focused on only delivering one feature, such as enterprise search, or many features, such as document management, business intelligence, web content management, and workflows. Deployments can also differ greatly in size, with small deployments of a single server up to large deployments with farms of 15 or more servers.

In this module, you will learn about the core features present in SharePoint 2013, the new features in this version, and what has been removed. You will also learn about the basic structural elements of a farm deployment and how they fit together. Finally you will learn about the

different deployment options available to SharePoint 2013.

Lessons

- Key Components of a SharePoint Deployment
- New Features in SharePoint 2013
- SharePoint 2013 Deployment Options

After completing this module, students will be able to:

- Identify the capabilities and architecture of SharePoint 2013.
- Identify new and deprecated features in SharePoint 2013.
- Identify deployment options for SharePoint 2013.

Module 5: Designing an Information Architecture

Information architecture (IA) defines the structures by which an organization catalogs information. Designing an IA requires a detailed understanding of not only the information held in an organization but also the usage, context, volatility, and governance of the information. A good IA rationalizes the creation and storage of content and streamlines its surfacing and use.

IA design should be platform-neutral, but it must also be driven by the functionality of its environment. Microsoft SharePoint Server 2013 provides a rich and functional platform for the development and implementation of efficient and effective IA structures. The integral use of metadata throughout SharePoint Server 2013 means that an IA designer has a range of storage, navigation, and retrieval options to maximize usability in a well-structured IA.

In this module you will learn about the core elements of IA design and the facilities and devices available in SharePoint Server 2013 to deploy an effective information management solution.

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Lessons

- Understanding Business Requirements
- Organizing Information In SharePoint Server 2013
- Planning for Discoverability

Lab : Creating an Information Architecture - Part One

- Identifying Site Columns, Content Types, and Term Sets
- Planning Site Structures and Security Boundaries
- Designing Keywords, Synonyms, and Managed Properties
- Designing a Taxonomy

Lab : Creating an Information Architecture - Part Two

- Identifying Site Columns, Content Types, and Term Sets
- Planning Site Structures and Security Boundaries
- Designing Keywords, Synonyms, and Managed Properties
- Designing a Taxonomy

After completing this module, students will be able to:

- Explain how understanding business requirements drives the design of an organizational IA.
- Describe the key components available in SharePoint Server 2013 to deploy an IA.
- Plan for discoverability as part of an IA deployment.

Module 6: Designing a Logical Architecture

This module discusses the importance of creating a logical architecture design based on business requirements before you implement a solution. The module covers conceptual content, defining a logical architecture, and the components of

SharePoint Server 2013 that you must map to business specifications.

Requirements gathering, and the development of a solution design, are a complex area of study. There are a range of structured methods for identifying, analyzing, and documenting systems and business processes. This module reviews some of the techniques for analyzing and designing business solutions for SharePoint Server 2013, rather than any specific structured methodology.

Lessons

- Identifying Business Requirements
- Overview of SharePoint Server 2013 Logical Architecture
- Documenting Your Logical Architecture

Lab : Designing a Logical Architecture

- Plan a Logical Architecture
- Produce 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 Server 2013 deployment.
- Map business requirements to SharePoint Server 2013 architecture components.
- Explain the importance of documentation and describe the options for documenting logical architecture.

Module 7: Designing a Physical Architecture

When you design a Microsoft SharePoint 2013 deployment, you must carefully consider the hardware and farm topology requirements. Your choices of server hardware and the number of servers that you specify for the farm can have a significant impact on how the farm meets user requirements, how users perceive the SharePoint solution, and how long before the farm requires additional hardware.

This module describes the factors that you should consider when you design the physical architecture

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of a SharePoint 2013 deployment. The physical architecture refers to the server design, farm topology, and supporting elements—such as network infrastructure—for your deployment. This physical architecture underpins the operations of your SharePoint 2013 environment, so it is essential that your physical design fully meets the operational requirements.

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

- Designing a Physical Architecture
- Develop a Physical Architecture Design Diagram

After completing this module, students will be able to:

- Describe the physical design requirements for SharePoint 2013.
- Describe the supporting requirements for a successful SharePoint 2013 physical design.
- Identify SharePoint farm topologies.
- Map a logical architecture design to a physical architecture design.

Module 8: Installing and Configuring SharePoint Server 2013

After you design and plan your logical and physical architectures for a Microsoft SharePoint Server 2013 deployment, the next installation steps are to implement the deployment design and specify configuration settings for the deployment.

In this module, you will learn about installing SharePoint 2013 in various topologies. You will learn how to configure farm settings, and how to script the installation and configuration of SharePoint 2013.

Lessons

- Installing SharePoint Server 2013
- Configuring SharePoint Server 2013 Farm Settings
- Scripting Installation and Configuration

Lab : Deploying and Configuring SharePoint Server 2013 - Part 2

- Provisioning a SharePoint 2013 Server Farm
- Configuring Incoming Email
- Configuring Outgoing Email
- Configuring Integration with Office Web Apps Server 2013

Lab : Deploying and Configuring SharePoint Server 2013 - Part 1

- Provisioning a SharePoint 2013 Server Farm
- Configuring Incoming Email
- Configuring Outgoing Email
- Configuring Integration with Office Web Apps Server 2013

After completing this module, students will be able to:

- Install SharePoint 2013.
- Configure SharePoint 2013 farm settings.
- Script the installation and configuration of SharePoint 2013.

Module 9: Configuring Authentication for SharePoint 2013

Authentication is the process by which you establish the identity of users and computers. Authorization controls access to resources by assigning permissions to users and computers. To provide authorization to consumers of Microsoft SharePoint content and services, whether they are end users, server platforms, or SharePoint apps, you first need to verify that they are who they claim to be. Together, authentication and

authorization play a central role in the security of a SharePoint 2013 deployment by ensuring that consumers can only access resources to which you have explicitly granted them access.

In this module, you will learn about the authentication infrastructure in SharePoint 2013. You will learn how to configure SharePoint to work with a variety of authentication providers, and you will learn how to configure authenticated connections between SharePoint and other server platforms.

Lessons

- Overview of Authentication
- Configuring Federated Authentication
- Configuring Server-to-Server Authentication

Lab : Configuring SharePoint 2013 to Use Federated Identities

- Configuring AD FS to Make the Web Application a Relying Party
- Configuring SharePoint to Trust AD FS as an Identity Provider
- Configuring the Web Application to Use the AD FS Identity Provider

After completing this module, students will be able to:

- Explain the authentication infrastructure of SharePoint 2013.
- Configure claims providers and identity federation for SharePoint 2013.
- Configure server-to-server authentication for SharePoint 2013.

Module 10: Securing a SharePoint 2013 Deployment

Microsoft SharePoint Server 2013 is not just a group of websites—it is also a site-provisioning engine for intranets, extranets, and Internet sites, a collection of databases, an application platform, and a platform for collaboration and social features, as well as being many other things. In addition to it touching your network, it also touches your line-of-business applications and Microsoft Active Directory; therefore, it has a large attack surface to consider and protect. SharePoint 2013 is supplied with several security features and tools out-of-the-box to help you secure it.

In this module, you will learn how to secure and harden your SharePoint 2013 farm deployment and how to configure several security settings at the farm level.

Lessons

- Securing the Platform
- Configuring Farm-Level Security

Lab : Hardening a SharePoint 2013 Server Farm

- Configuring SharePoint and SQL Server to Communicate Over Non-Standard Ports
- Configuring Firewalls for SharePoint Server Farms
- Configuring Blocked File Types
- Configuring Web Part Security
- Implementing Security Auditing

Lab : Configuring Farm-Level Security

- Configuring SharePoint and SQL Server to Communicate Over Non-Standard Ports
- Configuring Firewalls for SharePoint Server Farms
- Configuring Blocked File Types
- Configuring Web Part Security
- Implementing Security Auditing

After completing this module, students will be able to:

- Secure the SharePoint 2013 platform.
- Configure farm-level security in SharePoint 2013.

Module 11: Managing Taxonomy

In order to organize information and make that information easier to find and work with, you can

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label or categorize information. With files and items in Microsoft SharePoint, you can apply metadata, which could be a category, a classification, or a tag, in order to organize your content and make it easier to work with.

In most organizations, the most effective way to implement metadata is through a defined taxonomy that you have standardized through stakeholder input. This enables users to select metadata terms from a predefined list, which provides standard results.

Microsoft SharePoint Server 2013 can further enhance the application of metadata by using content types. Organizations can use content types to standardize specific types of files, documents, or list items and include metadata requirements, document templates, retention settings, and workflow directly.

Lessons

- Managing Content Types
- Understanding Term Stores and Term Sets
- Managing Term Stores and Term Sets

Lab : Configuring Content Type Propagation

- Creating Content Types for Propagation
- Publishing Content Types Across Site Collections
- Configuring the Managed Metadata Service
- Creating Term Sets and Terms
- Consuming Term Sets

Lab : Configuring and Using Managed Metadata Term Sets

- Creating Content Types for Propagation
- Publishing Content Types Across Site Collections
- Configuring the Managed Metadata Service
- Creating Term Sets and Terms
- Consuming Term Sets

After completing this module, students will be able to:

- Describe the function of content types and explain how to apply them to business requirements.
- Describe the function of managed metadata in SharePoint 2013.
- Configure the managed metadata service and supporting components

Module 12: Configuring User Profiles

Social computing environments enable organizations to quickly identify colleagues, team members, and others with similar roles or requirements in an organization. Social features in Microsoft SharePoint Server 2013 enable users to quickly gain updates and insight into how other members of the organization are working and what information or processes people are developing, along with the progress being achieved.

The SharePoint 2013 social platform is based around the capabilities provided by the user profile service application, supported by other services, such as the Managed Metadata Service and the Search service. The User Profile Service provides configuration and control over importing profile data, creating My Sites, managing audiences, and users can utilize these features.

Lessons

- Configuring the User Profile Service Application
- Managing User Profiles and Audiences

Lab : Configuring User Profiles

- Creating a User Profile Service Application
- Configuring Directory Import
- Configuring My Sites
- Configuring Audiences

Lab : Configuring My Sites and Audiences

- Creating a User Profile Service Application
- Configuring Directory Import
- Configuring My Sites

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- Configuring Audiences

After completing this module, students will be able to:

- Plan for and configure user profile synchronization with Active Directory Domain Services.
- Plan for and configure My Sites and audiences.

Module 13: Configuring Enterprise Search

Search has been a cornerstone of Microsoft SharePoint Products and Technologies since SharePoint Portal Server 2003. Since those early days, the architecture of the search service has evolved through the Shared Service Provider architecture to the service application architecture of SharePoint Server 2010. It has also grown with the addition of FAST technologies. SharePoint Server 2013 continues this growth by re-architecting the service and integrating many of the components that were intrinsic to FAST Search to deliver a more robust and richer experience for IT staff and users.

In this module, you will learn about the new architecture of the Search service, how to configure the key components of search, and how to manage search functionality in your organization.

Lessons

- Understanding the Search Service Architecture
- Configuring Enterprise Search
- Managing Enterprise Search

Lab : Configuring Enterprise Search

- Configuring the Search Service Application
- Configuring a File Share Content Source
- Configuring a Local SharePoint Content Source
- Creating a Search Center
- Optimizing Search Results

- Customizing the Search Experience

Lab : Configuring the Search Experience

- Configuring the Search Service Application
- Configuring a File Share Content Source
- Configuring a Local SharePoint Content Source
- Creating a Search Center
- Optimizing Search Results
- Customizing the Search Experience

After completing this module, students will be able to:

- Describe the core architecture of the Search service and its supported topologies.
- Explain the steps required to configure the Search service in an enterprise environment.
- Describe how to manage and maintain a well-performing Search environment.

Module 14: Monitoring and Maintaining a SharePoint 2013 Environment

Careful planning and configuration alone will not guarantee an effective Microsoft SharePoint 2013 deployment. To keep your SharePoint 2013 deployment performing well, you need to plan and conduct ongoing monitoring, maintenance, optimization, and troubleshooting. In this module, you will learn how to plan and configure monitoring in a SharePoint 2013 server farm, and how to tune and optimize the performance of your farm on an ongoing basis.

You will also learn how to use a range of tools and techniques to troubleshoot unexpected problems in your SharePoint 2013 deployments.

Lessons

- Monitoring a SharePoint 2013 Environment
- Tuning and Optimizing a SharePoint Environment

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- Planning and Configuring Caching
- Troubleshooting a SharePoint 2013 Environment

Lab : Monitoring a SharePoint 2013 Deployment

- Configuring Usage and Health Data Collection
- Configuring SharePoint Diagnostic Logging
- Configuring Health Analyzer Rules
- Reviewing Usage and Health Data
- Analyzing Network Traffic
- Analyzing SharePoint Page Performance

Lab : Investigating Page Load Times

- Configuring Usage and Health Data Collection
- Configuring SharePoint Diagnostic Logging

- Configuring Health Analyzer Rules
- Reviewing Usage and Health Data
- Analyzing Network Traffic
- Analyzing SharePoint Page Performance

After completing this module, students will be able to:

- Develop and implement a monitoring plan for a SharePoint 2013 environment.
- Tune and optimize a SharePoint 2013 server farm on an ongoing basis.
- Plan and configure caching to improve the performance of a SharePoint 2013 deployment.
- Troubleshoot errors and other issues in a SharePoint 2013 deployment.

Course Inclusions:

- Microsoft Official Curriculum (MOC) and/or Wizards Learning Courseware (WLC)
- Microsoft Certified Trainer (MCT)
- Lunch, AM and PM Snacks
- Certificate of Achievement
- Course Note