

# Implementing Microsoft SharePoint on NetApp Storage Systems

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<b>Code:</b>	NA-MSSP
<b>Length:</b>	5 days
<b>URL:</b>	<a href="#">View Online</a>

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Learn how to implement your Microsoft SharePoint solution on NetApp storage for maximum benefit. In this course, you examine the components of the SharePoint solution on NetApp storage and explore how to configure the components for maximum benefit. Through hands-on exercises, you migrate SharePoint data to NetApp storage and leverage SnapManager for SharePoint (SMSP) to back up and restore the data. You use Remote Blob Storage (RBS) to optimize the storage of SharePoint data on NetApp storage. You also recover and monitor data, and troubleshoot the SharePoint on NetApp solution.

## Skills Gained

- By the end of this course, you should be able to:
- Identify the main components of SharePoint collaboration software
- Diagram three prevalent SharePoint farm topology examples (small, medium, large)
- Describe the main SnapManager for SharePoint (SMSP) concepts and components
- Describe the benefits of deploying SharePoint on NetApp storage systems
- Prepare NetApp storage systems to store SharePoint data
- Use SMSP to migrate SharePoint data onto NetApp storage
- Use SMSP to back up and restore SharePoint data on NetApp storage
- Explain the concepts that are involved in optimizing storage of SharePoint data on NetApp storage
- Configure Real-Time Storage Manager, Scheduled Storage Manager, Archive Manager, and Connector to move binary large objects (BLOBs) from the Microsoft SQL Server database to a CIFS share on NetApp storage
- Describe the disaster-recovery options for a SharePoint deployment on NetApp storage
- Explain the role of virtualization for a SharePoint deployment on NetApp storage
- Use monitoring and troubleshooting tactics for SharePoint solutions on NetApp storage

## Who Can Benefit

- NetApp and partner Professional Services personnel, NetApp and partner system engineers, and customers

## Prerequisites

- The following NetApp University courses are recommended:
- Implementing Microsoft SQL Server 2012 on NetApp Storage Systems (MSSQL)

# Course Details

## Implementing Microsoft SharePoint on NetApp Storage Systems

- Module 1 Overview of the Microsoft SharePoint on NetApp Solution
- Module 2 Microsoft SharePoint Concepts Describe the basic system architectures for a Microsoft SharePoint 2010 deployment (small farm, medium farm, and large farm)
- List the SharePoint service applications (SSAs)
- Identify SharePoint farm topologies:
  - Web applications
  - Site collections
  - Sites
  - Lists
- Module 3 Introduction to NetApp SnapManager for Microsoft SharePoint Describe the function of:
  - Components:
    - SMSP Manager (administrative workflow, plan creation, and ribbon UI)
    - SMSP Agent
  - Services:
    - Control Service (control, audit, and report databases)
    - Media Service
    - Report Service
  - Explain the interplay of permissions between components of the solution
  - Describe the benefits of SharePoint 2010 on NetApp storage:
    - Storage efficiency
    - Remote BLOB Storage (RBS) on NetApp CIFS shares
    - NetApp deduplication and compression
    - SnapMirror software
    - SnapVault software
    - SnapLock software
- Module 4 Installing SnapManager for Microsoft SharePoint Install NetApp SnapDrive for Windows
  - Install SMSP Manager
  - Install SMSP Agent
  - Explain basic SnapManager for Microsoft SharePoint (SMSP) licensing concepts
  - Explain security trimming and SMSP permissions concepts
- Module 5 SMSP Configuration: Migrating Sharepoint Data to NetApp Storage Prepare NetApp storage systems to store SharePoint data
- Migrate SharePoint data onto NetApp storage
- Module 6 Using SnapManager for Microsoft SharePoint to Back Up SharePoint Data Use SnapManager for Microsoft SharePoint (SMSP) to back up SharePoint data on NetApp storage
  - Explain platform backup and restore
  - Explain granular backup and restore
- Explain how indexing content works with SharePoint on NetApp storage
- Module 7 Using SnapManager for Microsoft SharePoint to Restore SharePoint Data Use SnapManager for Microsoft SharePoint (SMSP) to restore SharePoint data on NetApp storage by using the following capabilities:
  - Full farm restore
  - Granular content restore

- Item-level restore
- Out-of-place restore
- Module 8 Storage Optimization with SnapManager for Microsoft SharePoint Explain the basic concepts that are involved in storage optimization for the Microsoft SharePoint on NetApp solution
- Describe the differences between the following:
  - Real-Time Storage Manager
  - Scheduled Storage Manager
  - Archive Manager
  - Connector
- Use Real-Time Storage Manager, Scheduled Storage Manager, Archive Manager, and Connector to move binary large object (BLOB) data from a SQL Server database to a CIFS share on NetApp storage
- Module 9 Windows PowerShell and SharePoint Management Shell Explain the basic differences between Stsadm and Windows PowerShell
- Demonstrate how to run Windows PowerShell and simple PowerShell commands
- Describe the difference between Windows PowerShell and SharePoint Management Shell
- Use SharePoint Management Shell to perform farm-management tasks in SharePoint
- Module 10 SharePoint on NetApp Disaster Recovery Establish disaster-recovery protection for the Microsoft SharePoint on NetApp solution
- Explain the role of SnapMirror software in the Microsoft SharePoint on NetApp solution
- Explain the role of SnapVault software in the Microsoft SharePoint on NetApp solution
- Module 11 SharePoint on Virtualized Solutions Describe the benefits and limitations of virtualizing SharePoint solutions on NetApp storage
- Explain the implications of virtualizing SharePoint solutions on NetApp storage
- Module 12 SharePoint Workflows on NetApp Storage Describe the lifecycle of a Microsoft SharePoint workflow and explain how to build and use workflows
- Use SnapManager for Microsoft SharePoint (SMSP) to create, back up, and restore workflows
- Module 13 Troubleshooting Microsoft SharePoint on NetApp Storage List the primary tools and sources for capturing and viewing SnapManager for Microsoft SharePoint (SMSP) and SharePoint logs
- Explain NetApp best-practice recommendations for SharePoint and SMSP roles
- Identify the recommended sequence for troubleshooting issues with SnapDrive software, SnapManager for SQL Server (SMSQL), and SMSP services
- Explain some of the most common issues that occur when you use SMSP to back up and restore SharePoint data
- List permissions requirements for various SMSP functionalities
- Lab Exercises
  - Lab 1-1 Connect to your equipment and check your NetApp storage cluster
  - Lab 1-2 Log in to the SQL Server and verify the SQL Server installation
  - Lab 1-3 Log in to the SharePoint application server
  - Lab 1-4 Log in to the SharePoint WFE server
  - Lab 2-1 Create Active Directory accounts for SharePoint
  - Lab 2-2 Install prerequisite software on the application server
  - Lab 2-3 Install SharePoint Server on the application
  - Lab 2-4 Install software prerequisites on the WFE Server
  - Lab 2-5 Install SharePoint on the WFE Server and join the server to a SharePoint farm
  - Lab 2-6 Create a search service application
  - Lab 2-7 Create a web application
  - Lab 2-8 Create a DNS entry for the web application

- Lab 2-9 Create a site collection
- Lab 2-10 Create a document library and upload a document
- Lab 2-11 Create a custom list
- Lab 4-1 Prepare for iSCSI connectivity between SnapDrive and the storage systems
- Lab 4-2 Install SnapDrive for Windows on the SharePoint application server
- Lab 4-3 Add the storage system (Vserver) to transport protocol settings
- Lab 4-4 Install SMSP Manager on the application server
- Lab 4-5 Install SMSP Agent on the SharePoint application server
- Lab 4-6 Install SMSP Agent on the web front-end server
- Lab 4-7 Update permissions in SQL Server Management Studio
- Lab 4-8 Install SMSP Agent on the SQL Server
- Lab 4-9 Log in to SMSP Manager
- Lab 5-1 Create storage containers on NetApp storage systems
- Lab 5-2 Use NetApp System Manager to create NSA volumes for external BLOB storage
- Lab 5-3 Use NetApp SnapDrive (SQLPR1) to create LUNs on the storage cluster
- Lab 5-4 Use NetApp SnapDrive (APPSVR) to create remaining LUNs on the storage cluster
- Lab 5-5 Stop SharePoint services on the SharePoint application server
- Lab 5-6 Stop SharePoint services on the SharePoint WFE server
- Lab 5-7 Run the SnapManager for SQL configuration wizard
- Lab 5-8 Restart SharePoint services on the SharePoint application server
- Lab 5-9 Restart SharePoint services on the SharePoint WFE server
- Lab 5-10 Set remaining permissions to utilize SharePoint service admin account
- Lab 5-11 Use SnapManager for SharePoint to migrate the SharePoint indexes
- Lab 6-1 Create a storage policy and logical device
- Lab 6-2 Configure a logical device and a physical device, and finish creating the storage policy
- Lab 6-3 Create a backup plan that allows restores at the site-collection level
- Lab 6-4 Run a backup plan that allows restores at the site-collection level
- Lab 6-5 Create and run a backup plan that allows restores at the site level
- Lab 6-6 Create and run a backup plan that allows restores at the item level
- Lab 7-1 Restore data from a full farm backup at the site-collection level
- Lab 7-2 Restore data from a backup at the site level
- Lab 7-3 Restore a document library from a backup at the item level
- Lab 8-1 Enable RBS
- Lab 8-2 Create a CIFS share for BLOB storage
- Lab 8-3 Define locations for BLOB storage
- Lab 8-4 Set up Real-Time Storage Manager
- Lab 8-5 Set up Scheduled Storage Manager
- Lab 8-6 Perform a back up without externalized data
- Lab 8-7 Perform a restore that includes externalized data
- Lab 8-8 Define a storage policy and logical device for use with Archive Manager

- Lab 8-9 Schedule an archive manager job
- Lab 8-10 Create a CIFS share for connector data
- Lab 8-11 Activate the connector feature
- Lab 8-12 Create a SharePoint document library
- Lab 9-1 Log in to SMSP Manager through the SMSP Management Shell
- Lab 9-2 Use the SMSP management shell to create a physical device
- Lab 9-3 Use the SMSP management shell to view information about the configuration of the BLOB stub database
- Lab 9-4 Use SMSP management shell to create a real-time storage manager rule
- Lab 9-5 Use the SMSP management shell to run a platform backup job
- Lab 12-1 Create a SharePoint workflow
- Lab 12-2 Use SMSP to perform a backup
- Lab 12-3 Mark the workflow complete and delete the item
- Lab 12-4 Use SMSP to restore deleted workflow data

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## Schedule (as of 4 )

**Date**

**Location**

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