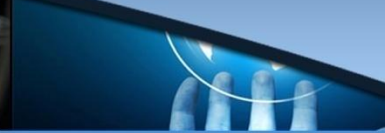


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# SharePoint 2010 Launch

Best Practices for Upgrading to  
SharePoint 2010



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# Intro & Overview

- Upgrade Best Practices
- Upgrade Cycle
- Testing Best Practices
- Demos



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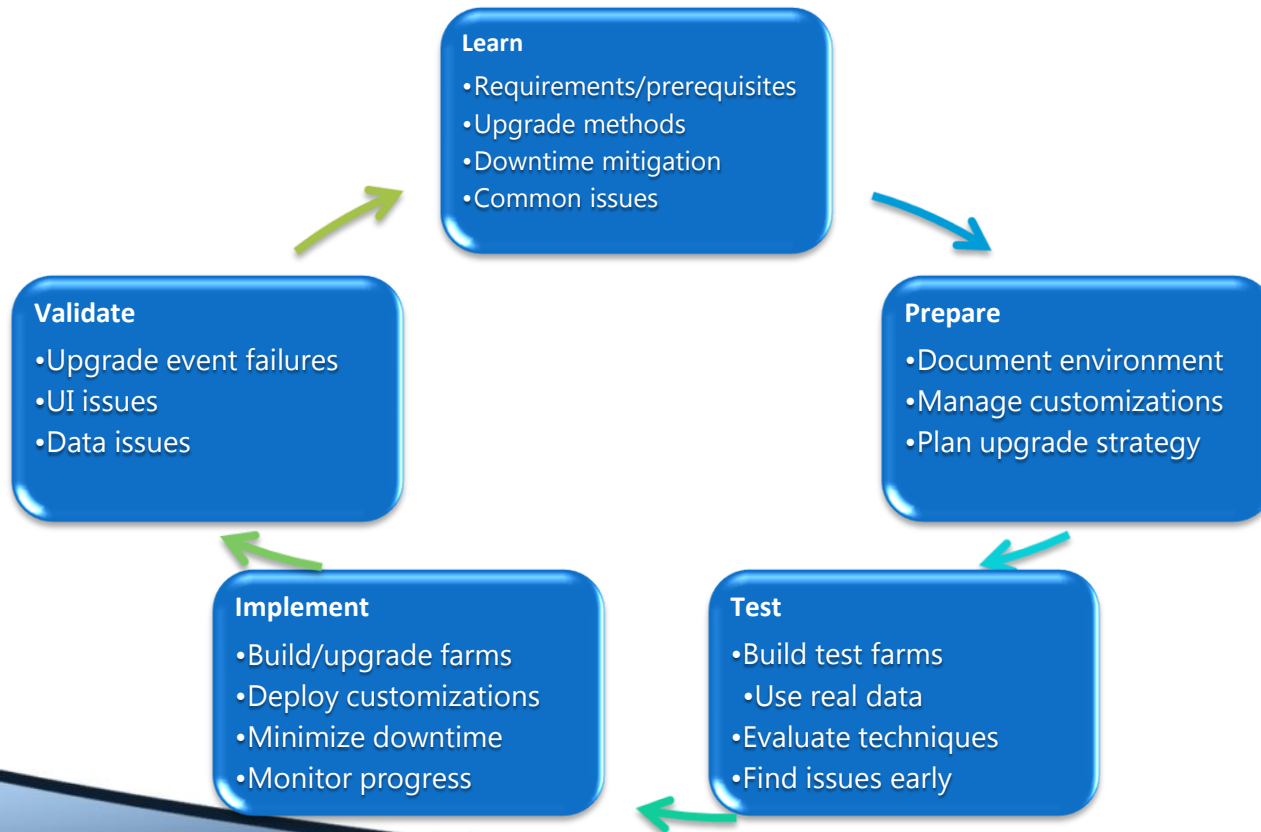
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# Upgrade Best Practices

- Update your servers to Service Pack 2 (SP2) of Microsoft Office SharePoint Server 2007 or later.
- Ensure that the environment is fully functioning before you perform an upgrade.
- Before you try an in-place upgrade, migrate to 64-bit servers.
- Run the pre-upgrade checker to look for potential issues.
- Perform a trial upgrade on a test farm first.
- Plan for capacity.
- Back up your environment.
- (Optional) If you are using the database attach upgrade method, set the original databases to read-only.
- Do not add any servers to your server farm after you begin the upgrade process.
- After upgrade, review the Upgrade Status page and upgrade logs to determine whether there are issues that must be addressed. Then review the upgraded sites.

# Upgrade Cycle





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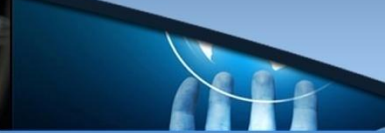
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# Learn

## Learn

- Requirements/prerequisites
- Upgrade methods
- Downtime mitigation
- Common issues



## Prerequisites

- 64 bit only
  - Operating System
  - SQL server

## Common issues

- Missing dependencies
- UI changes
- Lack of space
- Forms Authentication Providers

## Upgrade methods

- In-Place
- Database Attach
  - Content
  - Profile
  - Project

## Downtime mitigation

- Read-only content databases
- Parallel upgrades:
  - Multiple temporary farms
  - Parallel database attach
- AAM redirection



# Upgrade Overview

## New

- Upgrade Preparation Tools
- Windows PowerShell Upgrade Cmdlets
- Feature Upgrade
- Visual Upgrade
- Downtime Mitigation Processes:
  - Parallel Upgrade Pipelines
  - Content DB Upgrade with AAM Redirection

## Changed

- Upgrade Methods

## Improved

- Upgrade Status Reporting
- Upgrade Logging
- Read-only DB Support

## Removed

- Gradual Upgrade
- Side By Side Installation



# Sharepoint 2010 Upgrade Methods

- Supported and Unsupported Scenarios
- In-Place Upgrade
- Central Admin DB Attach
- Powershell DB Attach



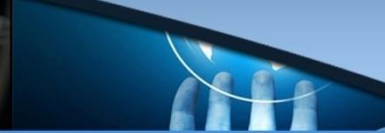
## Upgrade Methods Scenarios

### Supported Scenarios

- In-Place Upgrade
- Database Attach Upgrade:
  - Content Database
  - Profile Service Database

### Unsupported Scenarios

- Upgrade from earlier than WSS v3 SP2/MOSS 2007 SP2
- Direct upgrade from WSS v2/SPS 2003 or earlier
- Side by side installation
- Gradual upgrade



## SharePoint 2010 Upgrade In-place upgrade

- All-or-nothing upgrade requires prep work
- Hardware / Software environment needs to be appropriate
  - 64bit Windows Server 2008 SP2 OR 64bit Windows Server R2
  - 64bit SQL 2008 SP1+CU OR 64bit SQL 2005 SP3+CU
    - Consider this a minimum
  - Source WSSv3/MOSS 2007 environment needs to have SP2
- Standard in-place caution recommended



## In-Place Upgrade and your farm

- Each SSP upgrades into:
  - A Search service app
  - A User Profiles service app
  - An Excel service app
  - An Application Registry backward-compatible service app
  - A new managed metadata service app
- Web application associations are preserved
  - A proxy is created for each service application
- New databases are created as needed



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## Visual Upgrade Capability

- Stay in MOSS 2007 UI (default) or move to Sharepoint 2010 UI
  - Sharepoint 2010 ships MOSS 2007 Master pages and CSS
  - UI Preview capability
- Farm admin or site admin controlled
  - Web level setting
- Some items not MOSS 2007 UI compatible:
  - My site host
  - Report Server web parts



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## SharePoint 2010 Upgrade Central Admin DB Attach

- Central Admin - DB Attach
  - Content DB and Profile DB are all supported
- Supports both build-to-build (b2b) and version-to-version (v2v) scenarios\*
- Scoped at the content database level – one at a time
- Includes visual upgrade

\*v2v is MOSS 2007 to SP 2010, it does not support WSSv2 or SPS 2003



## SharePoint 2010 Upgrade Powershell DB attach

- PowerShell Cmdlets – DB Upgrade
  - Upgrade-SPContentDatabase
- Supports both build-to-build (b2b) and version-to-version (v2v) scenarios\*
- Similar to the Central Admin option
- Scoped at the database level
- Supports parallel db upgrades
  - Upgrade many DBs simultaneously

\*v2v is MOSS 2007 to SP 2010, it does not support WSSv2 or SPS 2003



## Windows PowerShell Upgrade Cmdlets

- Upgrade-SPContentDatabase
- Content database B2B/V2V upgrade
- Common Scenarios:
  - Initiate/resume content database B2B upgrades
  - Resume failed content database V2V upgrades
- Upgrade-SPEnterpriseSearchServiceApplication
- Search Service Application Instance B2B upgrade
- Upgrade-SPSingleSignOnDatabase
- MOSS 2007 SSO data to Secure Store database V2V upgrade



## Upgrade Logging/Status Reporting

- Upgrade Logging
  - New – One upgrade log per session
  - New – Upgrade errors only log
- Upgrade Status Reporting
  - Improved – Upgrade status page
  - New – Upgrade status history
  - New – Command line progress indication



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# Prepare

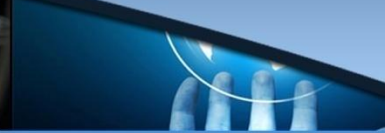
## Prepare

- Document environment
- Manage customizations
- Plan upgrade strategy



## Environment Cleanup Spring cleaning for a healthy farm

- Delete Stale Sites and Webs (Backup First)
  - stsadm -o DeleteSite [-force] [-gradualdelete]
  - stsadm -o DeleteWeb [-force]
- Remove Extraneous Document Versions
  - Primarily user driven, OM operations or tools help
- Cleanup Templates, Features, & Web Parts
  - Primarily user driven, OM operations or tools help
- Repair Data Issues
  - stsadm -o DatabaseRepair [-deletecorruption]
  - stsadm -o ForceDeleteList
  - stsadm -o VariationsFixupTool



## Upgrade Preparation Tools

### **WSS v3/MOSS 2007 SP2**

- Farm review
  - Pre-Upgrade Checker
  - stsadm -o EnumAllWebs
  - SPDiag V2
- Customizations gathering
  - stsadm -o ExportIPFSAdminObjects

### **SharePoint 2010**

- Farm review
  - stsadm -o EnumAllWebs
  - SPDiag 2010 (TBD)
- Content database review
  - Test-SPContentDatabase



## Pre-Upgrade Checker Command `stsadm -o preupgradecheck [-localonly]`

### Details

- Reports farm and server data
  - Identifies useful farm information
  - Identifies current or potential issues
- Modes
  - Local server + farm databases (default)
  - Local server only
- Makes no changes to environment or data
- Introduced in SP2; improved in October 2009 CU

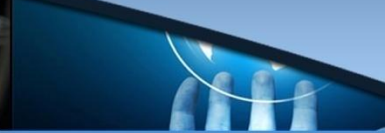
### Rules Files (Partial List)

- Informational
  - Farm Servers, Databases
  - AAM Configuration
  - Lists Site Definitions, Features, Web Parts, Event Receivers
  - Installed Language packs
  - CAML views/CAML content types
- Issues
  - Missing Site Definitions, Features, Assemblies
  - Data orphans
  - Modified content databases



# Test-SPContentDatabase

- Content database review from Sharepoint 2010
- Complements pre-upgrade checker report
- Reports data from server/database pairing
  - Compares against a specific web application
  - Identifies current or potential issues:
    - Data orphans
    - Missing site definitions
    - Missing features
    - Missing assemblies
  - Can show table sizing metrics
- Scans MOSS 2007 and Sharepoint 2010 content databases
- Makes no changes to the database



# Test

## Test

- Build test farms
  - Use real data
- Evaluate techniques
- Find issues early



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# Testing Best Practices

- Make your test environment as similar as possible to your real environment.
- Know what is in your environment. Do a full survey first.
- Use real data.
- Run multiple tests.
- Do not ignore warnings.
- Test the upgraded environment, not just the upgrade process.
- Verify sites in both Visual Upgrade modes.
- Consider a preview environment.



## Build Test Farms

- Use real data (copies of entire databases):
  - To identify trouble areas
  - To determine upgrade performance
- Use similar hardware if possible



## Evaluate Techniques

- Upgrade process
- Downtime mitigation
- Troubleshooting/Validation
- Determine and test mitigations before upgrade



Find Issues Early



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## Downtime Mitigation Processes

### **WSS v3/MOSS 2007 SP2**

- Read-only databases
- Parallel upgrade farms
- Gradual Upgrade

### **SharePoint 2010**

- Read-only databases
- Parallel upgrade farms
- Single farm, multiple upgrade sessions
- Content database attach with AAM redirection



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# Implement

## Implement

- Build/upgrade farms
- Deploy customizations
- Minimize downtime
- Monitor progress



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### Build/upgrade farms

- Services farm
- Content farm

### Minimize downtime

- Use read only with fallback environment
- Build for upgrade parallelism

### Deploy customizations

- Use Solutions whenever possible

### Monitor progress

- Watch upgrade status indicators
- Ensure upgrade process is on schedule

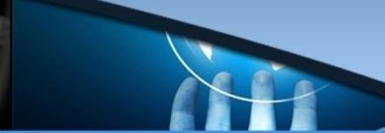
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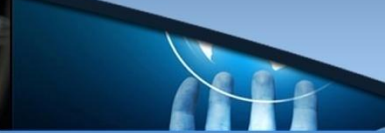
# Demo – In-Place Upgrade

- Pre-upgrade Checker
- Pre-Requisites installer
- Sharepoint 2010 Bit Installation



## DB attach Upgrade Methodology

- Pre-upgrade Checker
- Build new Farm
- Pre-Requisites installer
- Sharepoint 2010 Bit Installation
- Sharepoint 2010 Products and technologies Wizard
- Farm Configuration wizard
- Configure Search Service application
- Backup/restore/verify Databases
- Customizations
- Attach Databases
- SSP and My Sites Upgrade



## Farm Configuration Wizard

### Services

- Access Services
- Application Registry Service
- Business Data Catalog
- Excel® Services
- Lotus Notes Connector
- Managed Metadata Service
- People
- Search Service application
- Secure Store Service
- State Service
- Usage and Health data collection
- Visio® Graphics Service
- Web Analytics Web Service
- Word Conversion Service application



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# Demo – In-Place Upgrade

- Sharepoint 2010 Products and technologies Wizard



## Post-Upgrade Activities

- Find and Fix Issues
  - Missing Templates
  - Deprecated Templates
    - SSP Admin Site
    - Great Plains (STSPKPL)
  - Missing Features
  - Deprecated Features
    - PortalLayouts
  - Missing Assemblies
    - Web parts (STSPKPL)
- Forms Based Authentication
  - Modify config files
  - Fix-up user identifiers
- User Experience
  - Unghosted pages
  - Non-reghostable pages
  - Incompatible HTML
- Content Issues
  - Large/wide lists



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# Demo – In-Place Upgrade

- Database Upgrade Monitoring and results review.

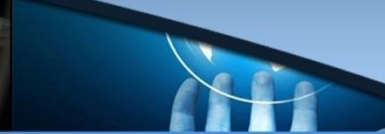


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# Validate

## Validate

- Upgrade event failures
- UI/UX issues
- Data issues



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# Validate

## Upgrade event failures

Review logs to identify issue

Implement fixes

Restart/resume upgrade

## Data issues

Orphaned items/database corruption

Hidden column data

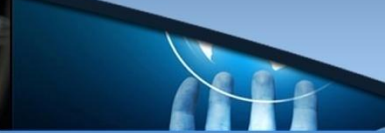
Connectivity issues to data sources

## UI/UX issues

Ghosting issues

UI Version issues

XHTML compliance issues



## Validate

- Verify High Impact/High Profile sites
- Create a new Site Collection/Libraries and verify basic functionality
- Application event log and upgrade log failures
- UI/UX issues (XHTML/XSLT/MasterPages)
- External Data Sources
- Security requires special attention post-upgrade:
  - For example, migration to claims



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# Demo

- Visual Upgrade



# Summary

- Upgrade best practices
- Upgrade Cycle (Learn, Prepare, Test, Implement)
- In-Place Upgrade
- Attach/Detach database process

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*RJB Technical Consulting specializes in delivering SharePoint services and solutions that allow companies to conduct business and collaborate quickly and efficiently.*



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- *Specializing in delivering SharePoint services and solutions that allow companies to conduct business and collaborate quickly and efficiently.*
  - **Founded in 1995**
  - **Microsoft Gold Certified Partner**
  - **Practice Area focused on SharePoint Technologies**
  - **Office 2010, SharePoint 2010 Beta Partner**
  - **Certified Technical Specialists in SharePoint 2010**
  - **SharePoint Specialists include Project Managers, Business Analysis, Architects, Developers and System Engineers**
  - **Operates Philadelphia Area SharePoint User Group**



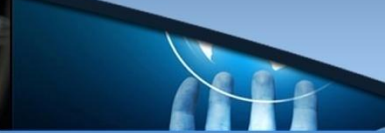
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