



Opgradering og administration af SharePoint 2010

Henrik Kim Christensen, Delegate A/S

hkc@delegate.dk

Purpose

- Introduce the new and improved upgrade experience
- Perform an actual live upgrade
- Touch on the different Administrative interfaces and UIs
- Leave attendees with a cookbook for starting testing upgrade of their SharePoint 2007/v3 environments

- Remember:
This is BETA and certain things can and will change!

About

- Worked with Microsoft Technology for nearly two decades
- Implemented solutions on all version of the SharePoint Technologies since the early version of SPS2001 and STS
- Active participant in the Microsoft Office “12” and “14” BETA programs
- Lead architect on several major SharePoint projects over the years

Henrik Kim Christensen

Solution Provider

hkc@delegate.dk

+45 27 22 33 01



Communicate with IT

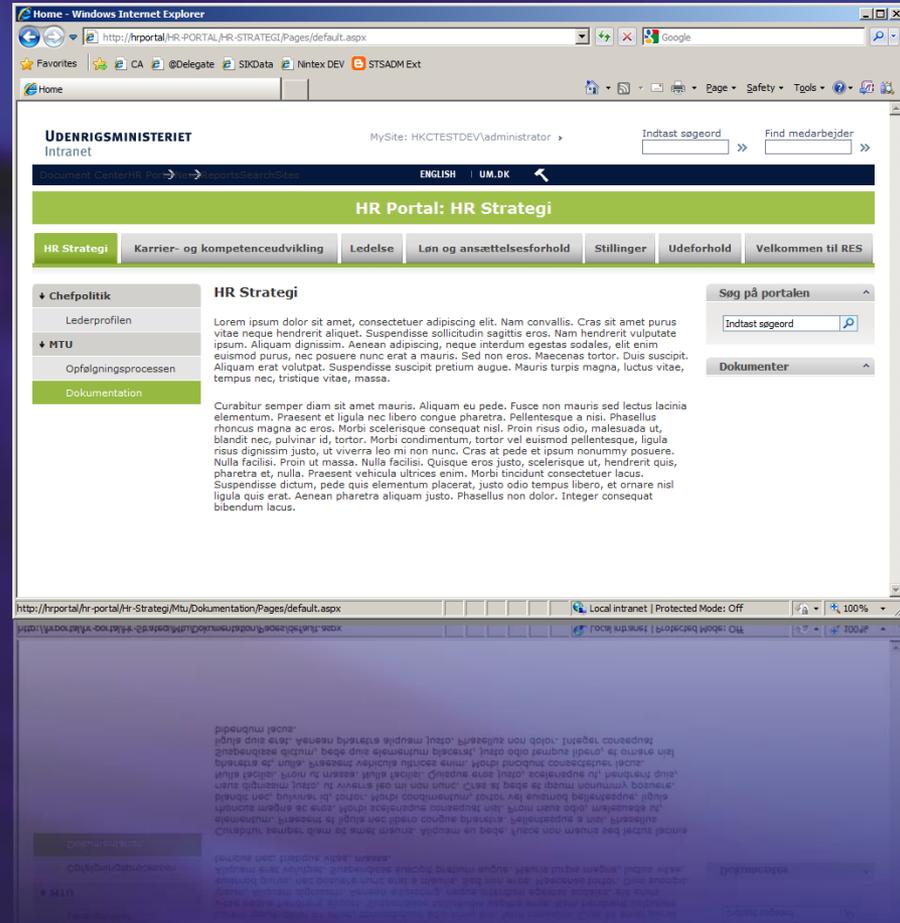
Microsoft TechNet

What is on this installation?

- Build using guide from Ted Pattison:
 - Download at www.criticalpathtraining.com
 - Register and download from member's area
 - PDF: "SharePoint Server 2010 Beta 2 Virtual Machine Setup Guide"
- Bootable VHD (My primary OS is Win7)
 - Windows Server 2008R2 x64 Ent
 - Active Directory and DNS
 - SQL Server 2008 SP1 and CU2
 - Office 2010 Pro BETA2
 - Visual Studio 2010 BETA2
 - SharePoint Server 2010 BETA2
- Physical machine is Lenovo W500
 - 8gb RAM
 - Corsair 256gb SSD

Solution to upgrade

- HR Portal Solution running on the award winning (IntraTeam) Udenrigsministeriet Intranet
- Important customizations:
 - Solution deployment of whole package
 - Custom features and Master Pages
 - Custom Site Definitions
- Everything stored in a single content database
- Server has been upgraded to December Cumulative Update



More information on Udenrigsministeriet Intranet delivered by Delegate:
<http://my.intrateam.dk/artikel/udenrigsministeriet-har-danmarks-bedste-intranet-intranetprisen-2009>

Download December CU Packages

- Requires simple registration at these locations:
 - WSS: <http://support.microsoft.com/hotfix/KBHotfix.aspx?kbnum=977027&kbIn=en-us>
 - MOSS: <http://support.microsoft.com/hotfix/KBHotfix.aspx?kbnum=977026&kbIn=en-us>
- Learn more:
 - 977027 The full server package for WSS
<http://support.microsoft.com/default.aspx?scid=kb;EN-US;977027>
 - 977026 The full server package for MOSS
<http://support.microsoft.com/default.aspx?scid=kb;EN-US;977026>

Servers in Farm - Windows Internet Explorer

http://testdevntx01:8080/_admin/FarmServers.aspx

Central Administration

Welcome HKCTESTDEV\administrator | My Site | My Links

Central Administration

Home Operations Application Management Site Actions

Central Administration > Operations > Servers in Farm

Servers in Farm

Farm Information

Version: 12.0.0.6504

Configuration database server: testdevntx01

Configuration database name: SharePoint_Config

Server	Services Running	Version	Remove Server
TESTAD01	Windows SharePoint Services Outgoing E-Mail		Remove Server
testdevntx01	Central Administration Excel Calculation Services Office SharePoint Server Search Windows SharePoint Services Database Windows SharePoint Services Help Search Windows SharePoint Services Incoming E-Mail Windows SharePoint Services Web Application	12.0.0.6504	Remove Server

Done

Trusted sites | Protected Mode: Off

100%

Servers in Farm - Windows Internet Explorer

http://testdevntx01:8080/_admin/FarmServers.aspx

Central Administration

Welcome HKCTESTDEV\administrator | My Site | My Links

Central Administration

Home Operations Application Management Site Actions

Central Administration > Operations > Servers in Farm

Servers in Farm

Farm Information

Version: 12.0.0.6524

Configuration database server: testdevntx01

Configuration database name: SharePoint_Config

Server	Services Running	Version	Remove Server
TESTAD01	Windows SharePoint Services Outgoing E-Mail		Remove Server
testdevntx01	Central Administration Excel Calculation Services Office SharePoint Server Search Windows SharePoint Services Database Windows SharePoint Services Help Search Windows SharePoint Services Incoming E-Mail Windows SharePoint Services Web Application	12.0.0.6524	Remove Server

Done

Trusted sites | Protected Mode: Off

100%

SharePoint upgrade – background information

Changes to Upgrade from O12 to O14

- Changed
 - Upgrade Methods
- Improved
 - Upgrade Status Reporting
 - Upgrade Logging
 - Read-only DB Support
- Removed
 - Gradual Upgrade
 - Side By Side Installation
- New
 - Upgrade Preparation Tools
 - Windows PowerShell Upgrade Cmdlets
 - Feature Upgrade
 - Visual Upgrade
 - Patch Management
 - Downtime Mitigation Processes:
 - Parallel Upgrade Pipelines
 - Content DB Upgrade with AAM Redirection

Upgrade Methods

Supported Scenarios

- In-Place Upgrade
- Database Attach Upgrade
- Single Click Install - SQL Migration

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

Upgrade Preparation Tools

WSS v3/MOSS 2007 SP2

- Farm insight
 - Pre-Upgrade Checker
 - stsadm -o EnumAllWebs
 - SPDiag V2
 - Bing: “Download Microsoft SharePoint Administration Toolkit v4.0”
- Customizations gathering
 - stsadm -o ExportIPFSAdminObjects

SharePoint 2010

- Farm insight
 - stsadm -o EnumAllWebs
 - SPDiag 2010 (TBD)
- Content database insight
 - 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

Pre-Upgrade Checker

Run the stsadm command
Evaluate the report

DEMO

```
Administrator: C:\Windows\system32\cmd.exe
C:\Users\administrator.HKCTESTDEV>stsadm -o preupgradecheck

Processing configuration file: WssPreUpgradeCheck.xml
  OSPrerequisite... Passed
  WindowsInternalDatabaseMigration... Passed
  WindowsInternalDatabaseSite... Passed
  MissingWebConfig... Passed
  ReadOnlyDatabase... Passed
  InvalidDatabaseSchema... Passed
  ContentOrphan... Passed
  SiteOrphan... Passed
  ServerConfigErrors... Failed
  FormsAuthenticationApplications... Passed
  PendingUpgrade... Passed
  InvalidServiceAccount... Passed
  InvalidHostName... Passed
  UnsupportedSqlServerVersion... Failed
  ServerInfo... Information Only
  FarmInfo... Information Only
  SiteDefinitionInfo... Information Only
  LanguagePackInfo... Information Only
  FeatureInfo... Information Only
  EventReceiverInfo... Information Only
  WebPartInfo... Information Only
  AamUrls... Information Only
  LargeList... Information Only
  CustomListViewInfo... Passed
  CustomFieldTypeInfo... Information Only
  CustomWorkflowActionsFileInfo... Passed
  ModifiedWebConfigWorkflowAuthorizedTypesInfo... Information Only
  ModifiedWorkflowActionsFileInfo... Passed
  DisabledWorkflowsInfo... Passed
  SPSearchInfo... Information Only
Processing configuration file: OssPreUpgradeCheck.xml
  SearchContentSourcesInfo... Information Only
  SearchInfo... Information Only

Operation completed successfully.

Please review the results at C:\Program Files\Common Files\Microsoft Shared\Web
Server Extensions\12\Logs\PreUpgradeCheck-20091229-152207-716.htm.

C:\Users\administrator.HKCTESTDEV>
```

C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\12\LOGS\PreUpgradeCheck-20 - Windows Internet Explorer

C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\12\LOGS\PreUpgradeCheck-20091229

microsoft danmark campus days

CA @Delegate SIKData Nintex DEV STSADM Ext

SharePoint Products and Technologies Pre-Upgrade Check Report

This report contains potential upgrade blocking issue(s), as well as information useful for upgrade planning in general. Address any reported issues before attempting to upgrade the current SharePoint farm, or any database from it. It is possible that during upgrade you may encounter errors which are not captured by this report, in which case please refer to <http://go.microsoft.com/fwlink/?LinkId=157732> for guidelines.

Start time: Tuesday, December 29, 2009 3:22:08 PM
End time: Tuesday, December 29, 2009 3:22:50 PM

Potential Upgrade Blocking Issues

Issue : Missing server file or server configuration issues

Server side files are referenced in the content databases, but are not installed on the server. Without these files, the sites may not function completely or the content may not render correctly. Also, upgrade or post upgrade issues may occur if these files are not available in the new version environment. The following web part(s) are referenced by the content, but they are not installed on the web server

- Id = e6377261-6920-bbfe-501f-fda7a61db10f, Type = Unknown, Reference = 1, Status = Missing

The following setup file(s) are referenced by the content, but they are not installed on the web server

- Path = [C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\12\Template\Features\DelegateUMSIKDataWebParts\SIKDataApprovalStatus.webpart], Reference = [1], Status = [Missing]
- Path = [C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\12\Template\Features\DelegateUMSIKDataWebParts\SIKDataRefresh.webpart], Reference = [1], Status = [Missing]
- Path = [C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\12\Template\Features\DelegateUMSIKDataWebParts\SIKDataViewImageWithID.webpart], Reference = [1], Status = [Missing]

For more information about this rule, see KB article 976218 in the rule article list at <http://go.microsoft.com/fwlink/?LinkId=120257>.

Issue : Unsupported SQL Server or unresponsive database

The following SQL server(s) do not meet the minimal version requirement:

Done Computer | Protected Mode: Off 100%

Upgrade options and mapping of SharePoint 2007 Farm paradigms

Downtime Mitigation Processes

the upgrade to...

WSS v3/MOS 2007 SP2

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

the upgrade to...

SharePoint 2010

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

Upgrading a MOSS 2007 Farm

- During in-place upgrades each SSP changes “topology”:
 - **Current:** Search database, SSP database, SSP Admin Site content database
 - **Becomes:** Application Registry database, BDC Service database, Search Service Admin database, Search Service Crawl Store database, Search Service Property Store database, Session state service database, State service database, Taxonomy database, User Profile databases, WSS Usage database, more...
- Web application associations are preserved
 - A proxy is created for each service app
- New databases are created as needed
- The database attach method requires more planning for SSPs
 - Search is not migrated
 - Profile information are split into User Profile and Managed Metadata Service
 - Consider the upgrade path for Personal Sites.
 - My Site Host (profile view) should upgrade with the User Profiles
 - Also InfoPath Forms Services with the administrator-deployed form templates requires special attention

Upgrade Walkthrough – step 1

Set farm (web application) read only
Create backup
Retrieve backup set and Solution Packages

DEMO

Database Properties - WSS_Content_hrportal

Select a page: Script Help

- General
- Files
- Filegroups
- Options
- Change Tracking
- Permissions
- Extended Properties
- Mirroring
- Transaction Log Shipping

Connection

Server: TESTDEVNTX01

Connection: HKCTESTDEV\administrator

[View connection properties](#)

Progress

Ready

Collation: Latin1_General_CI_AS_KS_WS

Recovery model: Full

Compatibility level: SQL Server 2008 (100)

Other options:

Concatenate Null Yields Null	False
Cross-database Ownership Chaining Enabled	False
Date Correlation Optimization Enabled	False
Numeric Round-Abort	False
Parameterization	Simple
Quoted Identifiers Enabled	False
Recursive Triggers Enabled	False
Trustworthy	False
VarDecimal Storage Format Enabled	True

Recovery

Page Verify	CHECKSUM
-------------	----------

Service Broker

Broker Enabled	True
Honor Broker Priority	False
Service Broker Identifier	c0774cb7-b286-4a7c-a020-ef96b40c9226

State

Database Read-Only	True
Database State	True
Encryption Enabled	False
Restrict Access	IMPLET_USER

Database Read-Only

OK Cancel

Back Up Database - WSS_Content_hrportal

Select a page: General, Options

Script Help

Source

Database: WSS_Content_hrportal

Recovery model: FULL

Backup type: Full

Copy Only Backup

Backup component:

Database

Files and filegroups: []

Microsoft SQL Server Management Studio

The backup of database 'WSS_Content_hrportal' completed successfully.

OK

Connection

Server: TESTDEVNTX01

Connection: HKCTESTDEV\administrator

[View connection properties](#)

Progress

Executing (100%)

[Stop action now](#)

Destination

Back up to: Disk Tape

C:\MSSQL\Backup\WSS_Content_hrportal.bak

Add... Remove Contents

OK Cancel

Introducing SharePoint 2010 upgrade tools and paradigms – part 1

Test-SPContentDatabase

- Content database insight from O14
- 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 O12 and O14 content databases
- Makes no changes to the database

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

**Microsoft Recommend:
Not using in BETA for
upgrade V2V of O12 DBs!**

Upgrade-SPEnterpriseSearchServiceApplication

- Search Service Application Instance B2B upgrade

Upgrade-SPSingleSignOnDatabase

- O12 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
 - New: Fixed upgrade log schema
- Upgrade Status Reporting
 - Improved: Upgrade status page
 - New: Upgrade status history
 - New: Command line progress indication

Upgrade Walkthrough – step 2

Restore database

Create the new Web Application

Verify the restored database against the web app

Add missing components (solutions)

stsadm: addcontentdb

Progress and outcome

DEMO

Restore Database - WSS_Content_hrportal

Select a page
 General
 Options

Script Help

Destination for restore

Select or type the name of a new or existing database for your restore operation.

To database: WSS_Content_hrportal

To a point in time: Most recent possible

Source for restore

Specify the source and location of backup sets to restore.

From database:

From device:

Select the backup sets to restore:

Restore	Name	Component	Type	Server
<input checked="" type="checkbox"/>	WSS_Content_hrportal-Full Database Backup	Database	Full	TESTDEVNTX

Microsoft SQL Server Management Studio

The restore of database 'WSS_Content_hrportal' completed successfully.

OK

Connection

Server: TESTDEVSP20...

Connection: HKCTESTDEV...

View connection

Progress

Executing (100%)

Stop action now

OK Cancel

Create the web application

The screenshot shows the 'Web Applications Management' interface in a Windows Internet Explorer browser window. The address bar displays the URL `http://hkc02:8080/_admin/WebApplicationList.aspx`. The interface includes a navigation menu on the left with categories like 'Central Administration', 'Application Management', and 'System Settings'. The main content area features a toolbar with various management actions such as 'New', 'Extend', 'Delete', 'General Settings', 'Managed Paths', 'Service Connections', 'Authentication Providers', 'Self-Service Site Creation', 'Web Part Security', 'User Permissions', 'User Policy', 'Anonymous Policy', and 'Permission Policy'. A table lists existing web applications, with columns for 'Name', 'URL', and 'Port'. A modal dialog box titled 'Application Created' is overlaid on the table, displaying the following text:

Application Created

The Microsoft SharePoint Foundation Web application has been created.

If this is the first time that you have used this application pool with a SharePoint Web application, you must wait until the Internet Information Services (IIS) Web site has been created on all servers. By default, no new SharePoint site collections are created with the Web application. To create a new site collection, go to the [Create Site Collection](#) page.

OK

The status bar at the bottom of the browser window indicates 'Trusted sites | Protected Mode: Off' and a zoom level of 100%.

Introducing SharePoint 2010 upgrade tools and paradigms – part 2

Feature Upgrade Capability

- Optional Capability
- Version Ranging for B2B or V2V Upgrades
- Declarative Feature Upgrade Activities:
 - ApplyElementManifests
 - AddContentTypeField
 - MapFile
- Custom Code Feature Upgrade
 - CustomUpgradeAction Activity
 - SPFeatureReceiver.FeatureUpgrading
 - Assembly in GAC

Visual Upgrade Capability

- Stay in O12 UI (default) or move to O14 UI
 - O14 ships O12 Master pages and CSS
 - UI Preview capability
- Farm admin or site admin controlled
 - Web level setting and OM
- Some items not O12 UI compatible:
 - My site host
 - PWA site collection
 - Report Server web parts

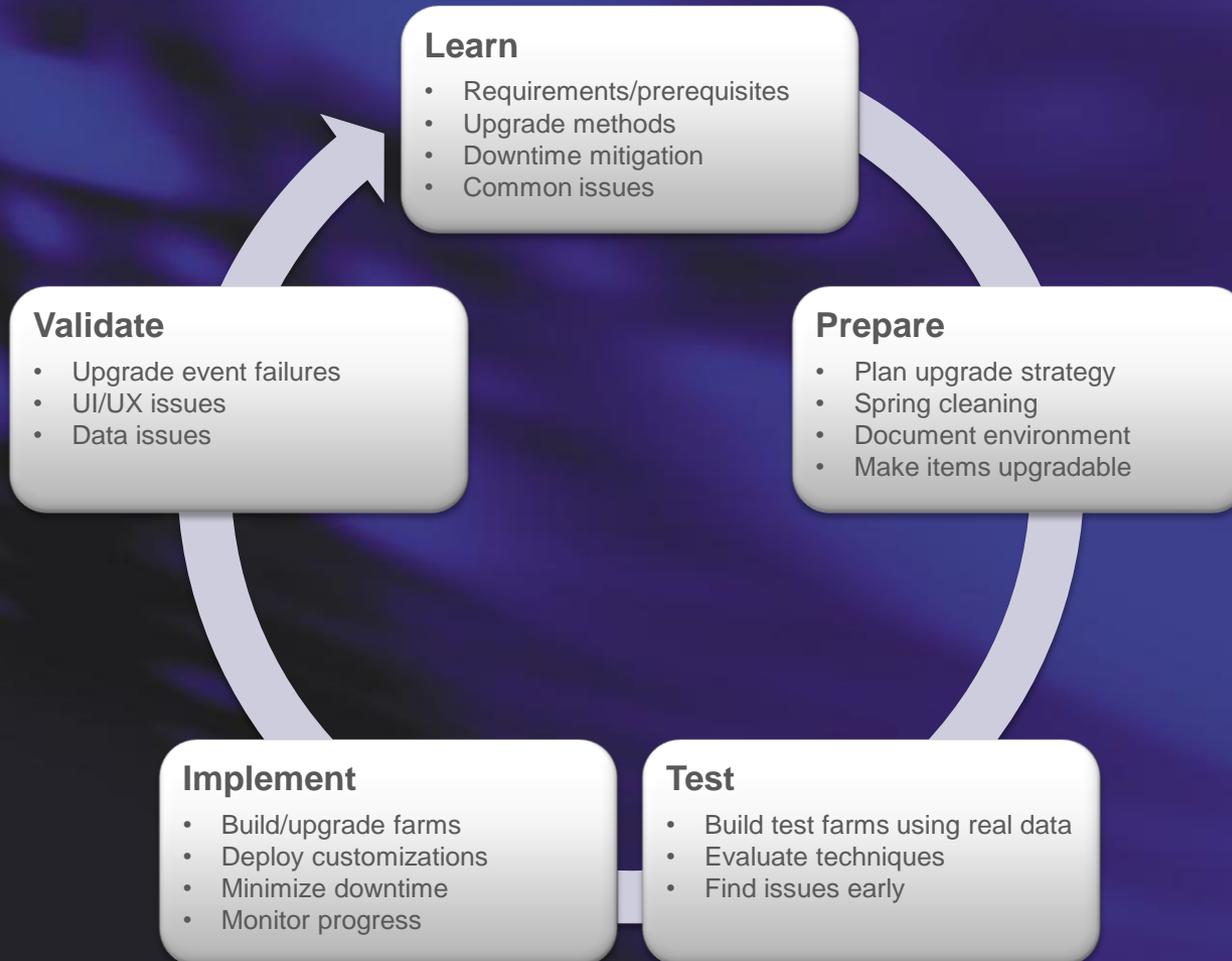
Upgrade Walkthrough – step 3

Navigate to the portal
Visual Upgrade preview
Fix bugs
Final upgrade and testing in SP2010 UI

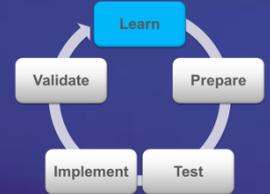
DEMO

Upgrade cycle

Upgrade Cycle: Overview



Upgrade Cycle: Learn



Requirements & prerequisites

- 64-bit only OS and applications
- SQL Server 2005 or 2008

Upgrade methods

- In-Place
- Database Attach (Content, Profile, Project)
- WID to SQL Migration

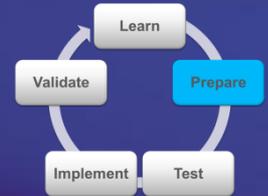
Downtime mitigation

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

Common issues

- Missing dependencies & lack of space
- UI changes
- Forms Authentication Providers

Upgrade Cycle: Prepare



Plan upgrade strategy

- Downtime limits/mitigate
- Rollback process
- Space requirements

Spring cleaning

- Content
- Hardware upgrades

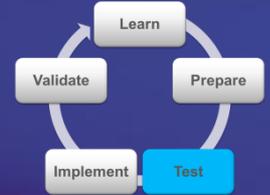
Document environment

- Farm structure/hierarchy
- Language packs
- Manage and Identify customizations

Make items upgradable

- Package Solutions and Features
- Site definitions
- Web parts

Upgrade Cycle: Test



Build Test Farms

- Use real and full datasets to establish timing
- Use similar hardware if possible



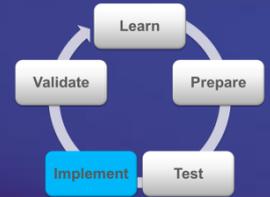
Evaluate Techniques

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



Find Issues Early!

Upgrade Cycle: Implement



Build/upgrade farms

- Services farm
- Content farm

Deploy customizations

- Use Solutions whenever possible
- Also script as much as possible (utilize PowerShell)

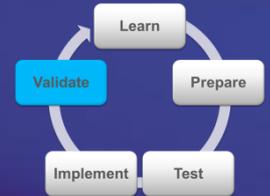
Minimize downtime

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

Monitor progress

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

Upgrade Cycle: 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

Call for action

Summary and Call for action

Learn

- Read upgrade documentation
- Learn PowerShell

Prepare

- Use pre-upgrade checker command on existing environments

Test

- Test upgrade using Beta 2 bits
- Try proof of concept with current/upgraded customizations

Implement

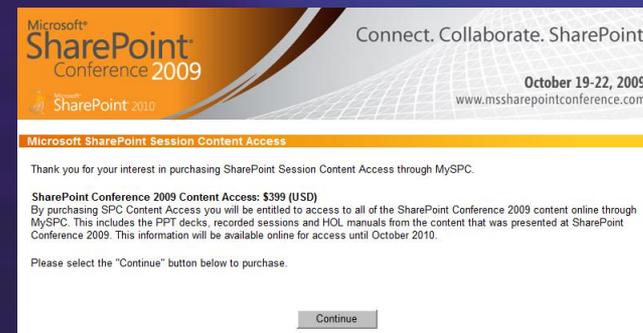
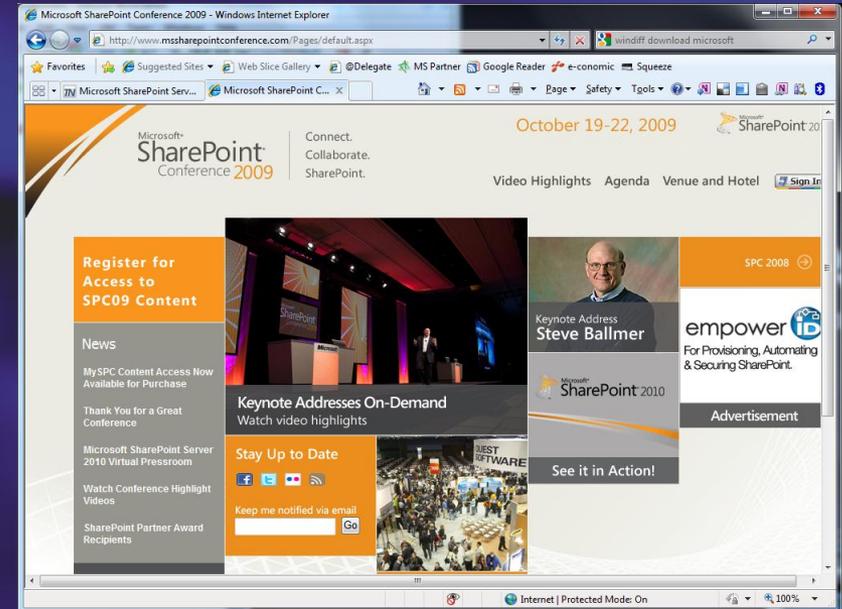
- Upgrade to O12 SP2 (with Oct/Dec 2009 CU a plus)
- Move to 64 bit hardware, operating system, and SQL

Validate

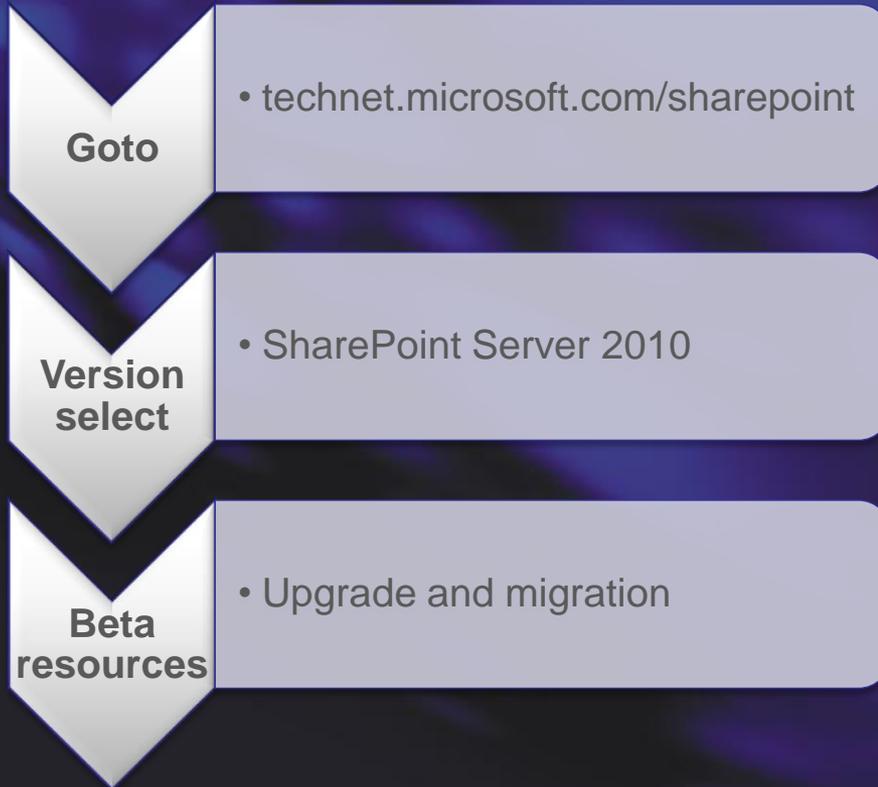
- Find issues in Beta

To learn more: Access the SharePoint 2009 Conference content

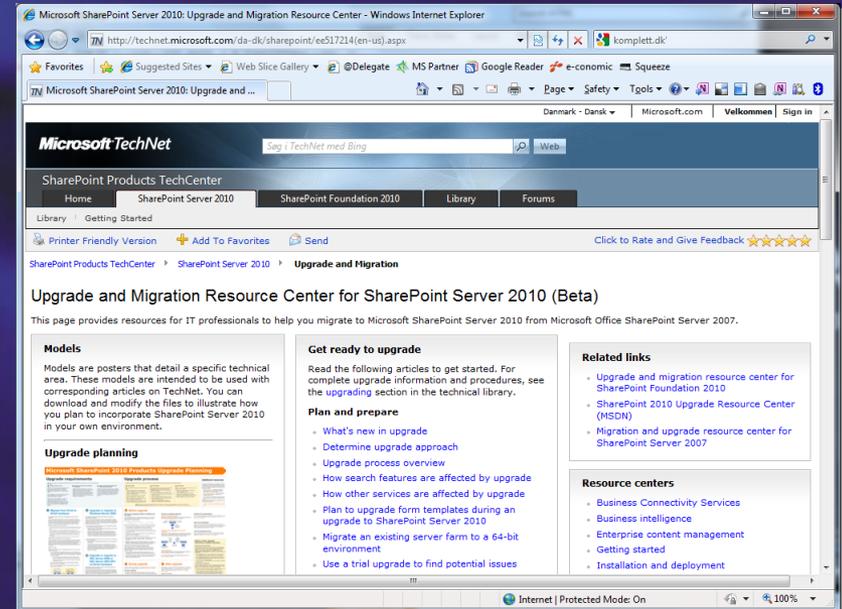
- Much of the content build on information found at SPC
- All sessions are recorded and can be viewed on demand
- Buy access for \$399 (USD)
- Added bonus: also access to SPC2008 content



More information



The documentation is already there!



Q&A – please fill in evaluations!



Henrik Kim Christensen

hkc@delegate.dk

+45 2722 3301

www.delegate.dk



Communicate with IT

Microsoft TechNet