

Best of SharePoint 2010

Upgrades



Catapult Systems

The Microsoft Consulting Company

Microsoft
GOLD CERTIFIED
Partner

Agenda

Overview

Upgrade Process

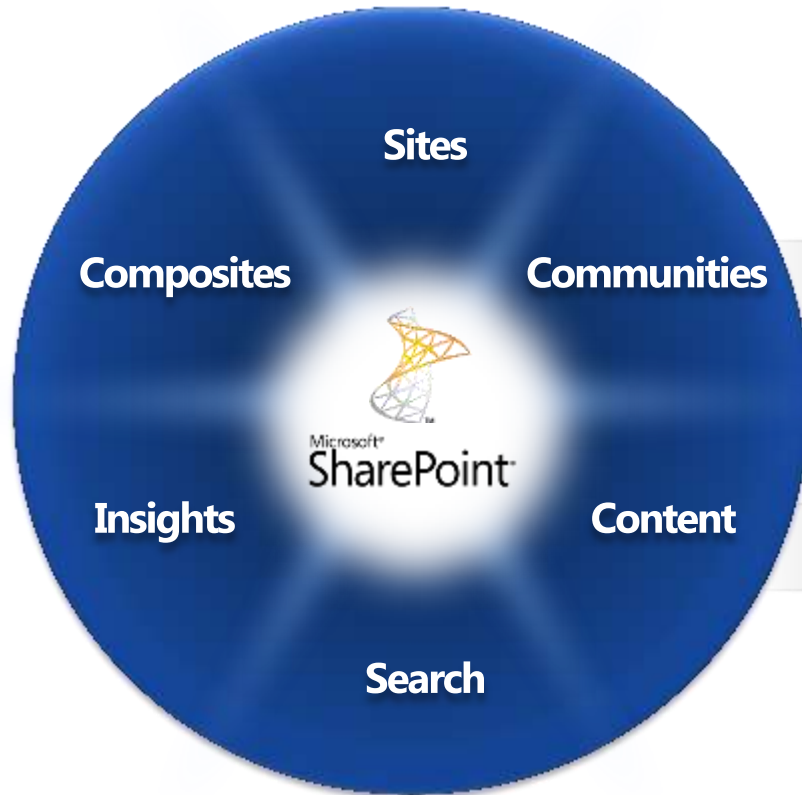
Considerations

SharePoint Online

Licensing

Microsoft SharePoint 2010

The **business collaboration platform** for the Enterprise and the Web



Connect and Empower People

Cut Costs with a Unified Infrastructure

Rapidly Respond to Business Needs

IT Pro Investments

Scale with Governance

- *Terabytes of data and multi-million item lists*
- *Improved Platform resiliency and redundancy*
- *Advanced back-up, restore and disaster recovery*

Deployment Flexibility

- *Collaboration across Intranet, Extranet and Internet*
- *On-premise and/or hosted options*
- *Data storage inside and outside the SharePoint DB*

IT Productivity

- *Enterprise-wide management capabilities*
- *Robust installation and predictable upgrade process*
- *Higher availability with better patch management*

Upgrade Overview

- Upgrade Methods
- Upgrade Preparation Tools
- PowerShell Upgrade Cmdlets
- Visual Upgrade
- Downtime Mitigation Processes:
 - Parallel Upgrade Pipelines
 - Read-only Upgrade
- Improved
 - Upgrade Status Reporting
 - Upgrade Logging
 - Read-only DB Support
- Removed
 - Gradual Upgrade
 - Side By Side Installation

Upgrade Process

Upgrade Methods

- Supported Scenarios

- In-Place Upgrade
- Database Attach Upgrade:
 - Content Database
 - Profile Service Database
 - Project Service Database
- Single Click Install - SQL Migration
 - Windows Internal Database (WID) -> SQL Express 2008 + File Stream RBS

- Unsupported

- 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

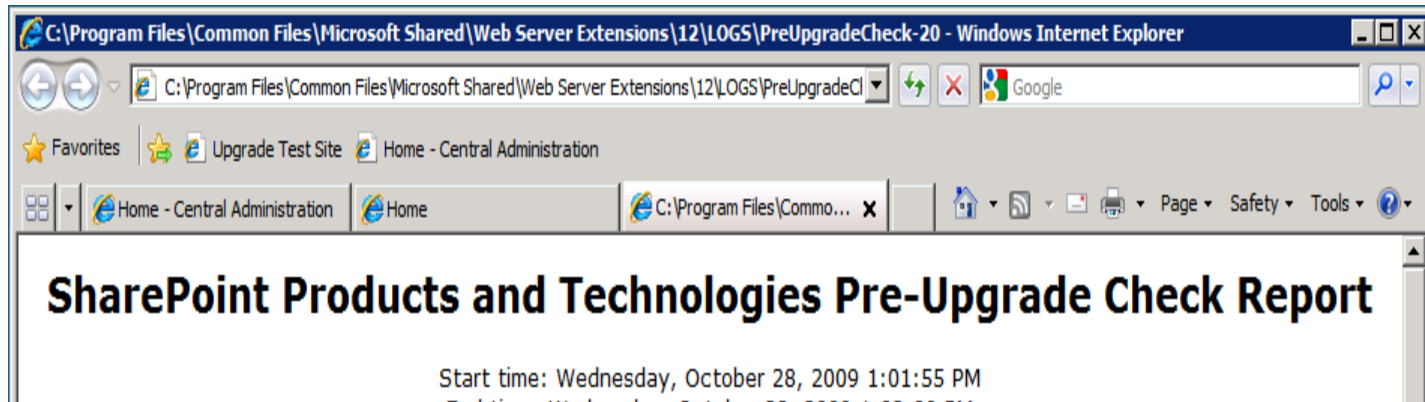
Upgrade Preparation Tools

- WSS v3/MOSS 2007 SP2
 - Farm insight
 - Pre-Upgrade Checker
 - stsadm -o EnumAllWebs
 - SPDiag V2
 - Customizations gathering
 - stsadm -o ExportIPFSAdminObjects
- SharePoint 2010
 - Farm insight
 - stsadm -o EnumAllWebs
 - SPDiag 2010 (TBD)
 - Content database insight
 - Test-SPContentDatabase

Pre-Upgrade Checker Command

- 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 Check



Information Only

Information Only : Search content sources and start addresses

The following is a list of the content sources and start addresses for each shared

This is an informational rule for upgrade planning. For more information about this <http://go.microsoft.com/fwlink/?LinkID=120257>.

Information Only : Servers in the current farm

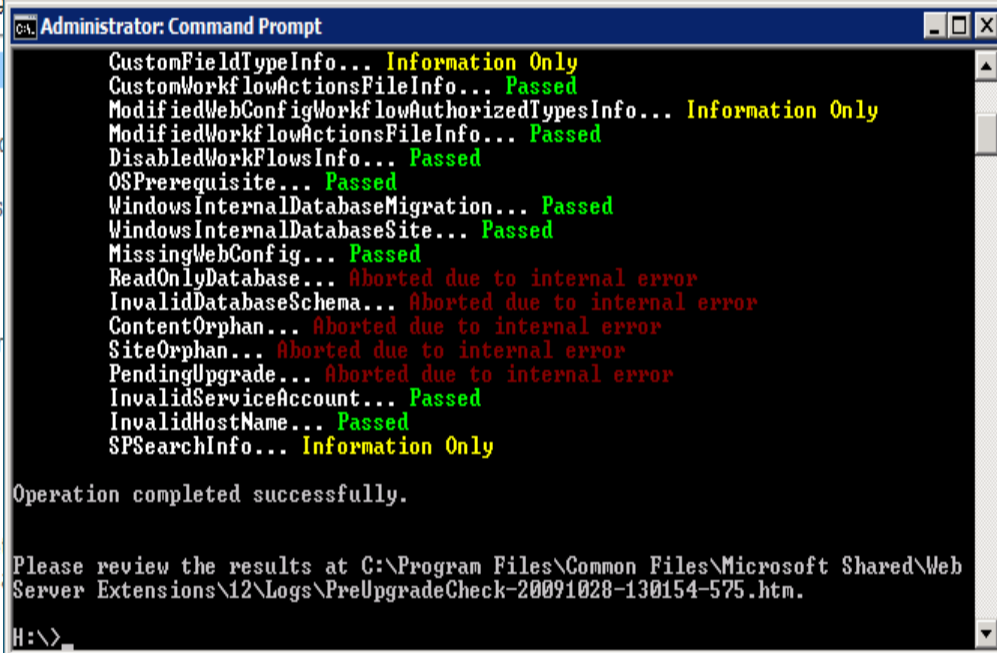
The following is a list of all the servers that has Sharepoint installed in the current servers.

- CATINSPWEB05

The preupgrade checker needs to be run on each of these servers in order to get. For more information about this rule, see KB article 954758 in the rule article list

Information Only : The components from this farm

This sharepoint software currently running on this farm is 12.0.0.6421. The farm contains the following components:



- 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

Test-SPContentDatabase

TestSPContentDB.txt - Notepad
File Edit Format View Help

```

Category      : MissingSetupFile
Error         : True
UpgradeBlocking : False
Message       : File [Features\ExcelServerSite\Microsoft.Office
                wp] is referenced [1] times in the database
                lled on the current farm. Please install any
                which contains this file.
Remedy        : One or more setup files are referenced in the
                re not installed on the current farm. Please
                ure or solution which contains these files.

Category      : MissingSetupFile
Error         : True
UpgradeBlocking : False
Message       : File [Features\PortalLayouts\dwp\SearchHigh
                ] is referenced [1] times in the database,
                ed on the current farm. Please install any
                hich contains this file.
Remedy        : One or more setup files are referenced in the
                re not installed on the current farm. Please
                ure or solution which contains these files.

Category      : MissingSetupFile
Error         : True
UpgradeBlocking : False
Message       : File [Features\PortalLayouts\Images\advancedsearch.gif] is re
                ferenced [1] times in the database, but is not installed on t
                he current farm. Please install any feature/solution which co
                ntains this file.
Remedy        : One or more setup files are referenced in the database, but a
                re not installed on the current farm. Please install any feat
                ure or solution which contains these files.

Category      : MissingSetupFile
Error         : True
UpgradeBlocking : False
Message       : File [Features\PortalLayouts\Images\cilayout_picker.gif] is r
                eferenced [1] times in the database, but is not installed on
                the current farm. Please install any feature/solution which c
                ontains this file.
Remedy        : One or more setup files are referenced in the database, but a

```

Administrator: SharePoint 2010 Management Shell

```

UpgradeBlocking : False
Message         : File [Features\PortalLayouts\Images\searchpage.gif] is refere
                nced [1] times in the database, but is not installed on the c
                urrent farm. Please install any feature/solution which contain
                s this file.
Remedy          : One or more setup files are referenced in the database, but a
                re not installed on the current farm. Please install any feat
                ure or solution which contains these files.

Category        : MissingSetupFile
Error           : True
UpgradeBlocking : False
Message         : File [Features\PortalLayouts\Images\searchresults.gif] is ref
                erenced [1] times in the database, but is not installed on th
                e current farm. Please install any feature/solution which con
                tains this file.
Remedy          : One or more setup files are referenced in the database, but a
                re not installed on the current farm. Please install any feat
                ure or solution which contains these files.

PS H:\> Test-SPContentDatabase -name SharePoint_Upgrade_Content -WebApplication
http://catinspweb07:8080 > "C:\TestSPContentDB.txt"
PS H:\>

```

Standard Upgrade Commands

- Stsadm -o addcontentdb
- Mount-SPContentDatabase

```
Administrator: SharePoint 2010 Management Shell

parameter>]] [[CommonParameters>]]

DETAILED DESCRIPTION
Use the Mount-SPContentDatabase cmdlet to attach an existing content
se to the farm. If a database is mounted to an upgraded farm will cau
database to be upgraded as well.

RELATED LINKS

REMARKS
To see the examples, type: "get-help Mount-
For more information, type: "get-help Mount-
For technical information, type: "get-help

PS H:\> Mount-SPContentDatabase -Name SharePoint
http://catinspweb07:8080 -DatabaseServer catin
53.35%
```

```
Administrator: SharePoint 2010

RELATED LINKS

REMARKS
To see the examples, type: "get-help Mount-SPContentDatabase -examples".
For more information, type: "get-help Mount-SPContentDatabase -detailed".
For technical information, type: "get-help Mount-SPContentDatabase -full".

PS H:\> Mount-SPContentDatabase -Name SharePoint_Upgrade_Content -WebApplication
http://catinspweb07:8080 -DatabaseServer catinbidb01\SharePoint
100.00%

Id                : 6ab9c4b6-adf2-4ac5-87cd-0d7260ed9f23
Name              : SharePoint_Upgrade_Content
WebApplication    : SPWebApplication Name=SharePoint - Upgrade Test - 8080
Server           : CATINBIDB01\SharePoint
CurrentSiteCount : 1

PS H:\>
```

```
Administrator: SharePoint 2010 Management Shell

For information about other operations and parameters,
use "stsadm.exe -help" or "stsadm.exe -help <operation>"

PS H:\> stsadm -help addcontentdb

stsadm.exe -o addcontentdb
-url <url>
-databasename <database name>
[-databaseserver <database server name>]
[-databaseuser <database username>]
[-databasepassword <database password>]
[-sitewarning <site warning count>]
[-sitemax <site max count>]
[-assignnewdatabaseid]
[-clearchangelog]
[-forcedeletelock]
[-preserveolduserexperience <true|false>]

PS H:\> stsadm -o addcontentdb -url http://catinspweb07:8080/ -databasename Shar
ePoint_Upgrade_Content

100.00%
Operation completed successfully.

PS H:\>
```

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

Demo

Visual Upgrade



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- Patching state insight
 - Patch management UI
 - Patch reporting PowerShell cmdlet
 - Patch status health rules
- Backwards compatibility mode
 - Binaries can be ahead of the database(s)
 - Defer upgrade for short period of time
 - Not intended for long duration

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

- O12 SSO data to Secure Store database V2V upgrade

Demo

PowerShell



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Considerations

- 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

- 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 Logging/Status Reporting



Upgrade and Patch Management

[Convert farm license type](#) |
 [Enable Enterprise Features](#) |
 [Enable Features on Existing Sites](#) |
 [Check product and patch installation status](#) |
 [Review database status](#) |
 [Check upgrade status](#)

Site Actions ▾ 

[Give Feedback](#)
Chris Rasmussen



Central Administration ▸ Upgrade Status

Use this page to see the status of upgrade sessions. This page refreshes automatically every minute. Navigating away from this page does not affect upgrade progress.



Central Administration

Application Management

System Settings

Monitoring

Backup and Restore

Security

Upgrade and Migration

General Application Settings

Configuration Wizards

Upgrade sessions

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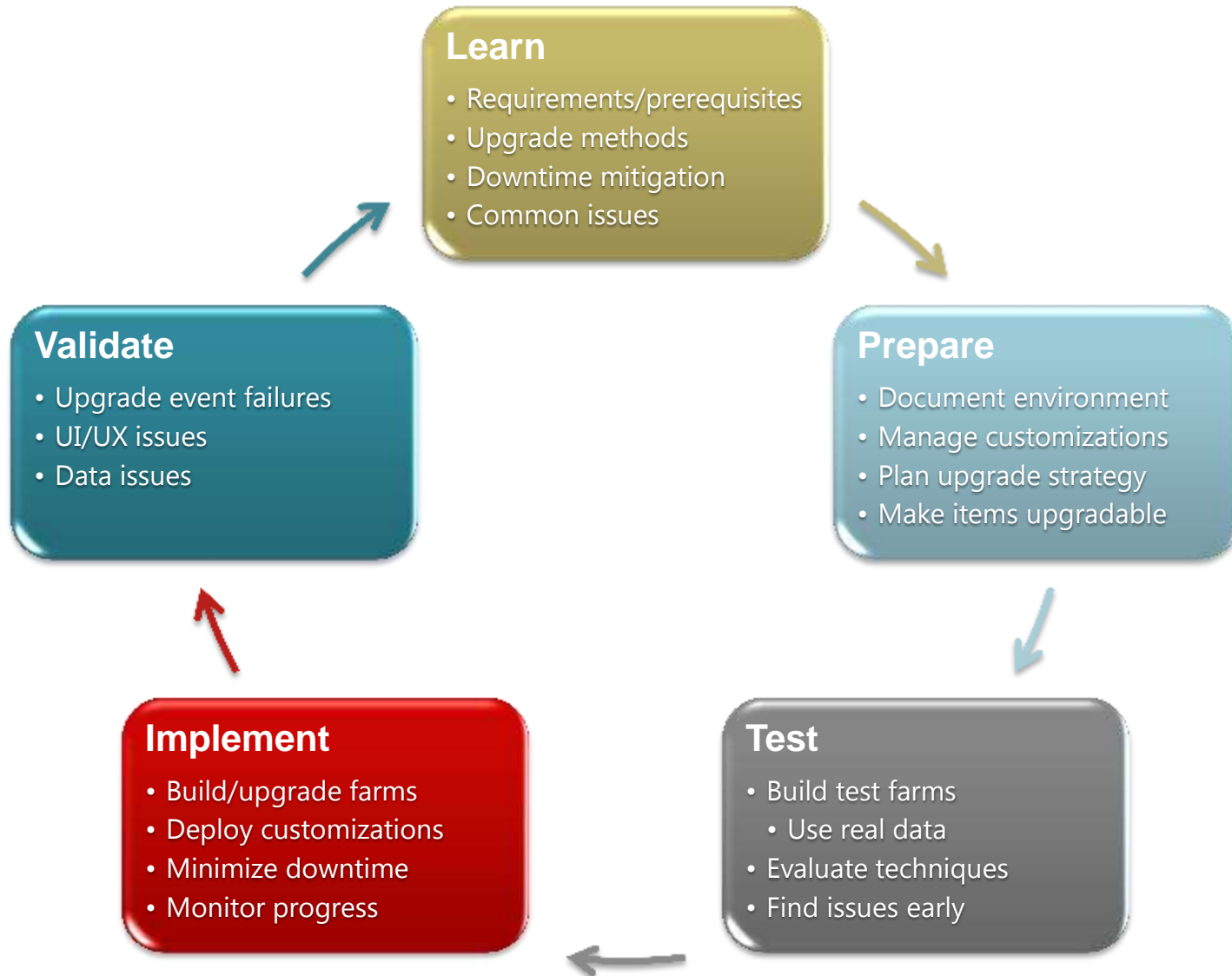
Status	Server	Start	Last Updated	Errors	Warnings
Succeeded	CATINSPWEB07	10/28/2009 1:42:32 PM	10/28/2009 1:47:50 PM	0	14
Succeeded	CATINSPWEB07	10/27/2009 9:20:07 AM	10/27/2009 9:25:35 AM	0	14
Succeeded	CATINSPWEB07	10/16/2009 4:33:06 PM	10/16/2009 4:38:42 PM	0	14
Succeeded	CATINSPWEB07	10/16/2009 3:50:52 PM	10/16/2009 3:56:26 PM	0	14
Succeeded	CATINSPWEB07	10/15/2009 10:50:13 AM	10/15/2009 10:54:56 AM	0	14

Selected upgrade session details

Status	Succeeded
Server	CATINSPWEB07
Start	10/28/2009 1:42:32 PM
Last Updated	10/28/2009 1:47:50 PM
Errors	0
Warnings	14

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

Upgrade Cycle: Overview



Upgrade Cycle: Learn

Prerequisites

- 64 bit only
 - Operating System
 - SQL server

Common issues

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

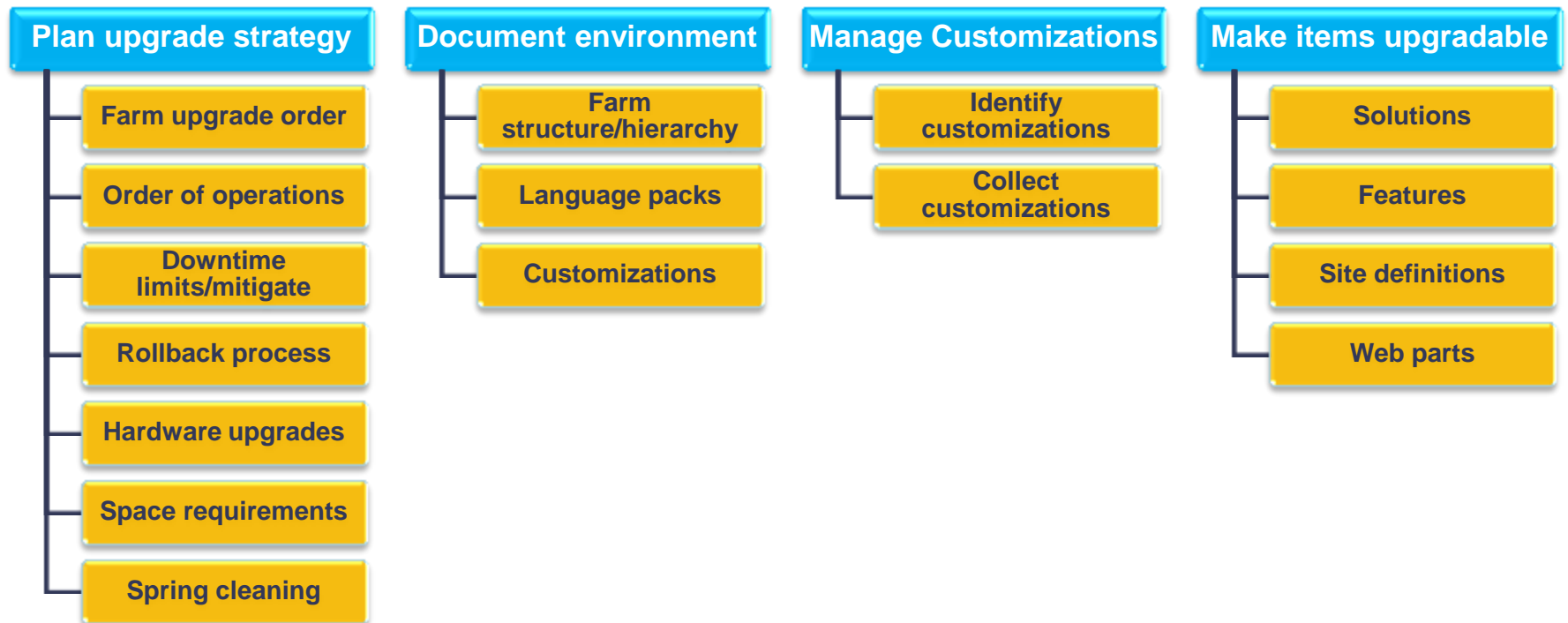
Upgrade methods

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

Downtime mitigation

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

Upgrade Cycle: Prepare



Upgrade Cycle: Test

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

Upgrade Cycle: Implement

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

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

Preparing For Upgrade

Learn

- Read upgrade documentation

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 October 2009 CU a plus) *
- Move to 64 bit hardware, operating system, and SQL

Validate

- Find issues in Beta

SharePoint Online

The Power of Choice!



On-Premises Deployments

- Self-hosted and managed
- Direct access to physical machines
- Central admin access
- Hosted within own data centers
- Entire environment customizable
- All accounts, machines, and data within a single AD Forest
- Available to companies of any size.



SharePoint Online Standard

- Multi-tenant hosting
- Shared Hardware
- Outsourced IT management
- Hosted within MS data centers
- Partial trust code support
- Support for SharePoint Designer based customizations
- Certificate authentication (today) or Forms based authentication (2010)
- Available for companies with 5+ seats



SharePoint Online Dedicated

- Dedicated Hosting
- Dedicated Hardware
- Outsourced IT management
- Hosted within MS data centers
- Most of the environment is customizable (Full and Partial Trust Code Support)
- Machine and Process accounts in a different AD Forest
- NTLM Authentication
- Available for companies with 5000+ seats

SharePoint Online Summary

Sites

- RSS Content Syndication
- Privacy & security
- Audience Targeting
- Site and document aggregation
- Site Manager
- Mobile Device Support
- SharePoint sites and Documents Roll up web parts
- Integration with SharePoint designer
- Portal Site Templates
- Site Directory
- Colleagues and membership web parts
- User Profiles import
- Multi-lingual user interface
- Extranet access

- New UX
- Cross Browser Support (Safari, IE, FF)
- Office 2010 Client integration

Communities

- People and groups lists
- Calendars
- Email Integration
- Task Coordination
- Surveys
- Document Collaboration
- Issue Tracking
- Templates
- Standard Site templates
- Social Networking Web part
- Real time presence and communication
- Standard Meeting Site Templates

- Improved Wikis and Blogs
- Tagging
- Rating
- Note Board
- Tag Cloud
- Activity Feed
- SharePoint WorkSpace
- Improved My Sites

Content

- Document Information Panel
- Document Action Bar
- Retention and Auditing policies
- Navigation controls
- Content publishing
- Page Layouts
- Slide Libraries
- Document Management Site Templates
- Standard Enterprise and Publishing Site templates
- Policies, auditing and compliance

- Improved Content authoring
- Improved Records Repository
- Metadata and Taxonomy
- Content Organizer
- Metadata driven Navigation
- Document IDs
- Document Sets
- Legal Holds
- Office Web Apps

- Integration with Microsoft information rights management (IRM)
- Site variations

Search

- Cross site-collection search
- Enterprise content sources
- Admin & Management
- Indexing Controls
- People search
- Business Data Search (via Federated Query)
- Authoritative Pages
- Relevance Features
 - Did you mean?
 - Query Recommendation

- Phonetic Search

- Business Data Search (via Indexing)
- Hosted FAST
- Configure crawled file type

Insights

- Integrated business intelligence dashboards
- Key performance indicators
- Filter web parts
- Integrated flexible spreadsheet publishing
- Share manage and control spreadsheets
- Web-based business intelligence using excel services
- Data connection libraries
- Business data web parts
- Business data actions
- Report center
- Web Analytics

- Visio Integration
- Improved Usage Analytics
- Access Services

- Performance Point Services
- Single Sign-On
- Claims Authentication

Composites

- Forms libraries
- Custom workflows
- Centralized forms management and control
- Design once development model
- Form import wizard
- Integrated deployment model for no-code forms
- Compatibility Checker

- Improved Forms Technology
- Improved Workflows
- Business Document Workflow Support
- Partial trusted workflow actions
- Browser based forms
- Improved BDC (Read/Write)
- External Lists
- Improved SharePoint Designer
- Sandboxed Solutions

Service Specific

- Standard, Enterprise, Deskless USL
- Partner Access License

- Shorter RPO/RTO
- Automated Custom Code Validation
- Customization Deployment Framework

- Tenant Admin Console

Other

- Project Online
- Custom Managed Paths
- Qualified Platform/Validated Apps
- Application Marketplace

- Geo-distributed design

Online Today

April 2010

Sept 2010

April 2011

Company

Licensing

Prerequisites

x64 hardware

SQL 2005 (or later), 64 bit

Windows 2008 (or later), 64 bit

SharePoint's Tiered SKU structure

SharePoint Foundation: free, entry-level “plumbing”

SharePoint Server: tiered CALs

Specialty Servers: Internet/Extranet, Search

Choice of Deployment

On-premises or online

The 2010 Lineup

Intranet



Microsoft®
SharePoint® Server 2010

Enterprise Client Access License
(CAL)
Standard Client Access License (CAL)

Internet/Extranet



Microsoft®
SharePoint® Server 2010
for Internet Sites Enterprise

New



Microsoft®
SharePoint® Server 2010
for Internet Sites Standard

High-End Search

New



Microsoft®
FAST® Search Server 2010
for SharePoint®

New



Microsoft®
FAST® Search Server 2010
for SharePoint® Internet Sites

New



Microsoft®
FAST® Search Server 2010
for Internet Business

Enabling Technologies



Microsoft®
SharePoint® Foundation 2010

Microsoft®

SharePoint® Designer 2010

Related Microsoft Products

Solutions built using SharePoint

- Reuse security, manageability and feature capabilities of SharePoint
- Can be technically dependent or additional features exposed when used together

Licensed Independently

- Related Microsoft technology have their own licensing requirements

Microsoft®
SharePoint® Workspace 2010

- Offline client for SharePoint, next version of Groove
- Licensed with Office Client, part of Office Pro+



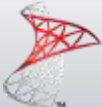
“Office Web Apps”

- Companions to Word, Excel, OneNote, PowerPoint on the web
- Licensed as part of Office 2010 client (requires SharePoint Foundation or higher)



Microsoft®
Project Server 2010

- Enterprise Project Management solution
- SharePoint Enterprise CAL technical dependency



Microsoft®
SQL Server®
PowerPivot

- New self-service reporting tool
- Requires SharePoint Enterprise CAL and SQL Enterprise Edition

Information for **IT Pros** at TechNet

<http://MSSharePointITPro.com>

Information for **Developers** at MSDN

<http://MSSharePointDeveloper.com>

Information for **Everyone**

<http://SharePoint.Microsoft.com>



Thank you!

Questions



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