



**Playing Tag:
Managed Metadata and Taxonomies in SharePoint 2010**

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KNOWLEDGE MANAGEMENT ASSOCIATES



About Me

- Working with SharePoint technologies since 2000/2001
- 20 years consulting and financial services technology (Santander, John Hancock, GMO, State Street)
- MBA in Investment Management from Boston College Carroll School of Management
- Write and speak often on Microsoft IW technologies (blogs & books)
- Microsoft MCSE/MCTS/MSA/MVTS

About KMA

- Full-service IT consulting firm established in 1995
- 29 employees: Partner, PM, Analyst, Developer, QA
- Microsoft technology focus:
 - Microsoft Gold Certified Partner / Working with SharePoint technologies since 2001
- Specialties in
 - Collaboration: Portals, Communities and Content Management
 - Insight: Enterprise Search and Business Intelligence
 - Productivity: Forms and Office Client Customization, Mekko Graphics (ISV)







Microsoft SharePoint Server 2010 ... the bright frontier



Eastern Long Island, July 4, 2010

Agenda

- Metadata – definitions and taxonomy
- Usage scenarios
- Folksonomy usage
- Taxonomy management
- Tags and social networking
- Content type hubs and publishing
- Configuration Overview & Design Tips

What is metadata?

- Literally, “after data”
- In practical usage, it means data about data
- For SharePoint, it usually means data that describes or classifies other data (lists) or documents (libraries)

Terminology

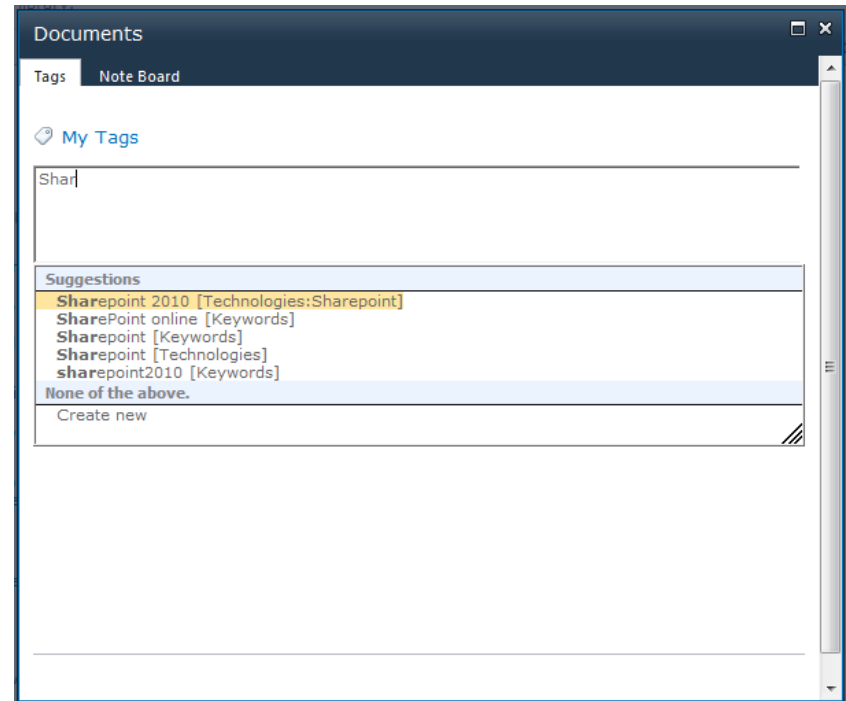
- **Taxonomy** – A formal hierarchy of terms and tags, usually centrally administered and defined
- **Folksonomy** - Informal list of ad-hoc tags or terms, usually built up over time through user defined keywords (Thomas Vanderwal – “people’s taxonomy”)
- **Term Store** – A database that houses taxonomies
- **Term Set** – The “second level” of a taxonomy
- **Term** – (a/k/a “tag”) An element of the defined taxonomy

SharePoint Content Terminology

- **Content Type** – A reusable collection of settings and rules applied to a certain category of content in SharePoint.
- **Content Type Hub** – A site collection which operates as a central source to share content types across the enterprise
- **Content Type Syndication** – Publishing content types across multiple sites, site collections, web application and/or farms.

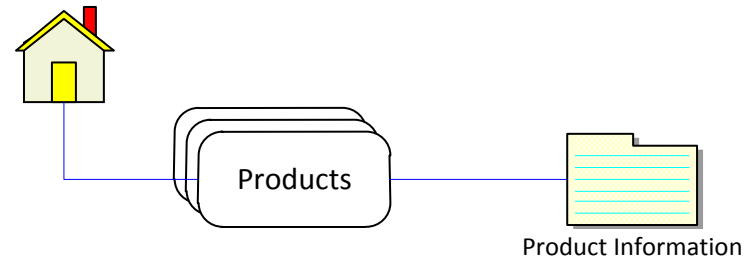
The bright frontier - 2010 Managed Metadata Service

- Centralized enterprise repository for tag hierarchies and keywords
- Publish and subscribe model for distributed content types



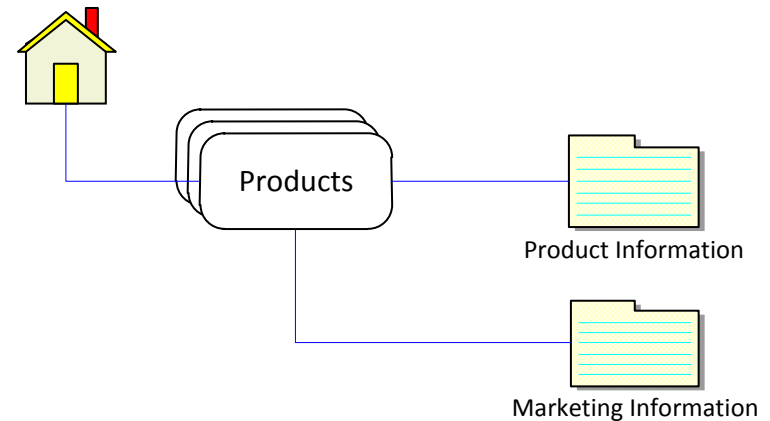
Scenario: Growth of an Information Architecture

- New company starts to develop products
- “X21 Screen Cleaner” is the first product
- Products team has a SharePoint site with a folder for product information
- Simple storage and navigation



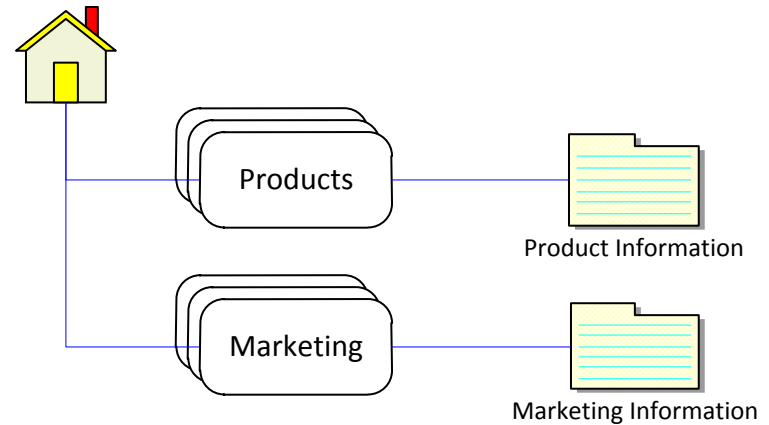
Scenario: Growth of an Information Architecture

- Company hires its first marketing specialist
- Adds a folder to the library for marketing content
- Multiple products, but all information still in one spot



Scenario: Growth of an Information Architecture

- In six months, marketing grows to a department, gets its own site
- Document physical storage becomes *de facto* taxonomy



Information Architecture Questions

- “I’m in the marketing group, and I just finished a new product sheet for the X-21 project – do I keep it on my site, or on the products site, or save it to both places?”
- “I’m in the product group, and there’s a product information sheet for the X21 Screen Cleaner – is that the most recent version, or do I have to double check on another site?”
- “I’m searching for information on the X-21 product – do we call it ‘X21’, or ‘X-21’? Why can’t we use both?”

IA Answers - Demo

- Tag sharing across multiple sites/collections
 - Products and Screen Cleaners

Folksonomy

- Informal list of ad-hoc tags or terms, usually built up over time through user defined keywords
- Centrally stored in the MMS application
- Easily enabled for each document library

Social tagging

- Tagging activities are always available from a common UI
- Tags are aggregated to each users profile page
- Tags themselves get profile pages

Demo

- Adding Managed Keywords to a library
- Tagging and terms
- Tags on personal profiles
- Tag profiles

Taxonomy

- Creating and managing terms and term sets
- Attaching to a library
- Taxonomy navigation

X-21 Screen Cleaner

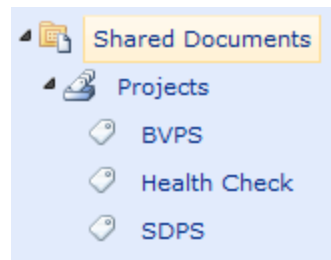
Available for Tagging
Select whether this term is available to be used by end users for tagging. When unselected this term will be visible but not enabled in tagging tools.

Language
Select a language of the labels for the term you would like to edit. English

Description
Descriptions will help users know when to use this term, and to disambiguate amongst similar terms.

Default Label
Enter one label as the default for this language. X-21 Screen Cleaner

Other Labels
Enter synonyms and abbreviations for this term. (You can enter a word or phrase per line.)
Screen Cleaner
X21
X21 Screen Cleaner
add new label

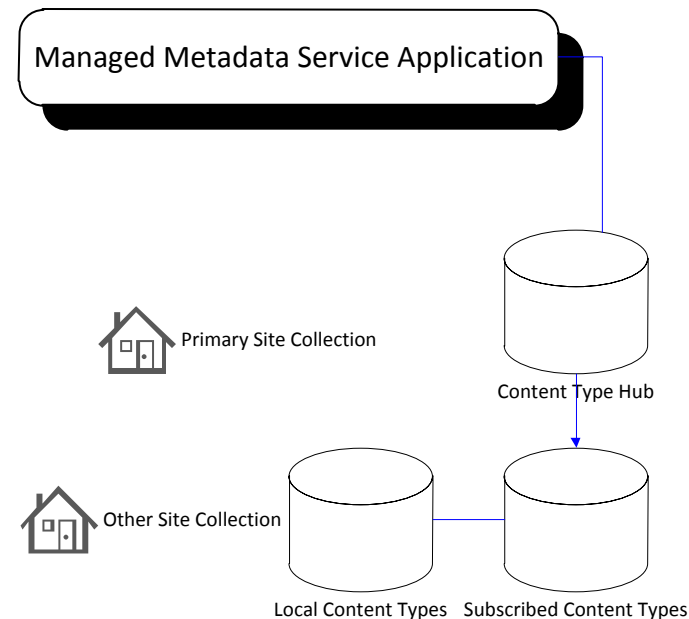


Demo

- Term sets and terms
- Metadata fields
- Navigation

Content Type Hubs

- Define one master site collection to house master content types
- Publish and synchronize across multiple farm and or site collections



Search

- Tags are automatically crawled properties
- All tags and terms are available as left hand “refinements”

The screenshot displays a search interface with a left-hand navigation pane for filters and a main area for search results. The filters include sections for Result Type, Word, Webpage, Site, Any Site, Author, Modified Date, Tags, and Any Tags. The search results list 1-10 of 12 results, each with a document icon, a title, a brief description, author information, date, size, and a 'View In Browser' link.

Result Type: 1-10 of 12 results

Any Result Type

Word

Webpage

Site

Any Site

msshome/

Marketing

IT

DocCenter

show more v

Author

Any Author

Chris McNulty

Modified Date

Any Modified Date

Past Month

Past 24 Hours

Past Week

Tags

Any Tags

50MB

kma

knowledge managemen...

SharePoint 2010 Beta Prerequisites
SharePoint 2010 will be a 64 bit only platform. There are no direct upgrades from 32 bit servers to ... **SharePoint** uses token authentication without requiring transport security. The .NET Framework 3.5 ...
Authors: Chris McNulty Date: 2/5/2010 Size: 30KB
<http://msshome/DocCenter/Documents/SharePoint 2010 Beta Prereqs.docx> View In Browser

Fixing 50MB WebDAV Document Downloads from SharePoint
Why am I lapsing into nonsensical ... **SharePoint** using a UNC WebDAV connection. As you may recall, in **SharePoint** 2007, documents hosted in a site URL like <http://server/site/library> can also be ...
Authors: Chris McNulty Date: 2/11/2010 Tags: security :: MOSS :: vista Size: 35KB
<http://msshome/DocCenter/Documents/Fixing 50MB WebDAV Downloads From SharePoint.docx> View In Browser

Data Type Max Size
SharePoint 2007 maximums.docx ... **SharePoint** maximums ... **Sharepoint** server farm ... that can be run in a library ... 3 per farm (20 per farm ... **SharePoint** limits the upload size to 50MB but can be raised to a maximum of ...
Authors: Chris McNulty Date: 2/22/2010 Tags: MOSS Size: 47KB
<http://msshome/Marketing/Keyword Documents/SharePoint 2007 maximums.docx> View In Browser

Adding images to master pages used in SharePoint 2007 site templates
SharePoint Server (MOSS) 2007 provides a simple way for power users to create a customized site and ... **SharePoint** 2007. Master pages provide a central point for configuring look and feel, among other ...
Authors: Chris McNulty Date: 2/22/2010 Tags: SSX2008 Size: 41KB
<http://msshome/DocCenter/Documents/Adding images to master pages used in SharePoint 2007 site templates.docx> View In Browser

KMA SharePoint Practice Brainstorming
52;#knowledge management|11bc561b-277c-4550-b928-2093c2ef26d6;#53;#Project Server 2010|93457558-9580-419b-9e14-07319ba24d20 ... Monthly meetings - review past 30 next 30 - Liz to ... Internal **SharePoint** ...
Authors: Chris McNulty Date: 2/21/2010 Tags: knowledge management Size: 32KB
<http://msshome/Marketing/Keyword Documents/My new document.docx> View In Browser

IT - How To Use This Wiki Library
You can use this wiki library to share knowledge. ... **SharePoint** Foundation-based wiki libraries, click Help on any Microsoft **SharePoint** Foundation ... **SharePoint**, not just pages. Here are some

Best Practices

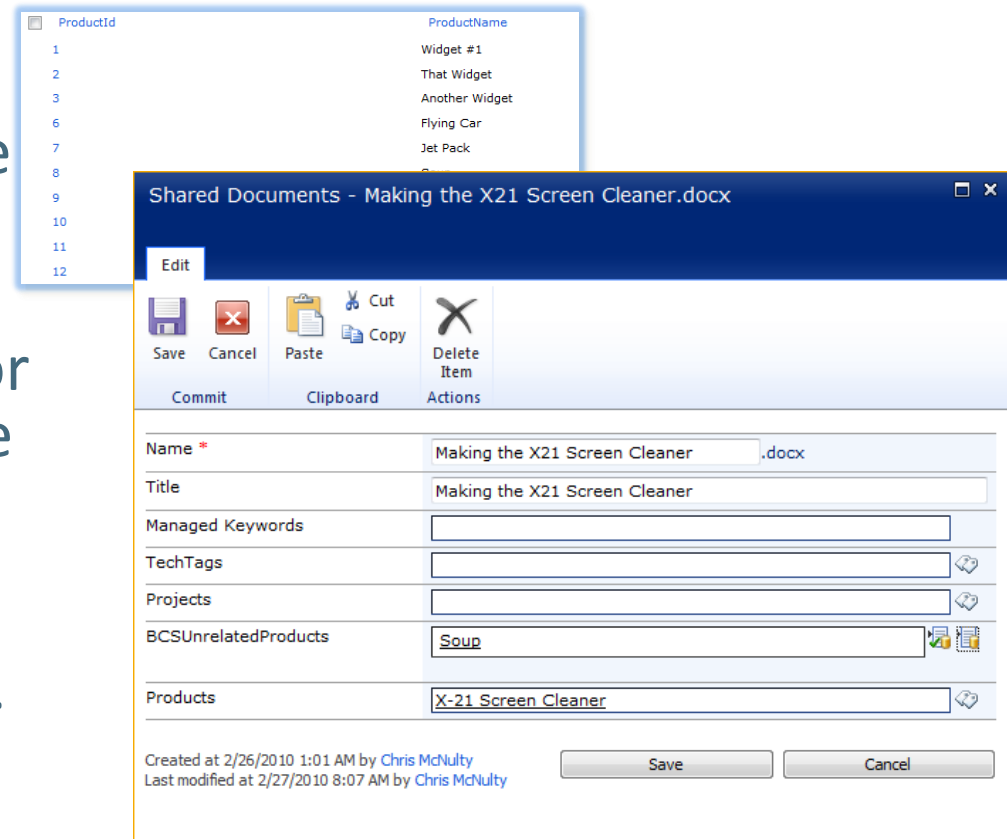


Design Considerations

- Dynamic external tags
- Tag security
- Openness vs. closed term sets
- Federated administration
- Content types & site columns - practical guidance
- Role of Master Data Services in SQL 2008 R2
- Programmability

Design – Dynamic External Tags

- One way data import limits
- BCS provides alternative tag techniques
- BCS data source can be maintained externally, or by publishing the source as an External List.
 - External Lists act almost identically to native SharePoint lists in the UI.



Design - Security

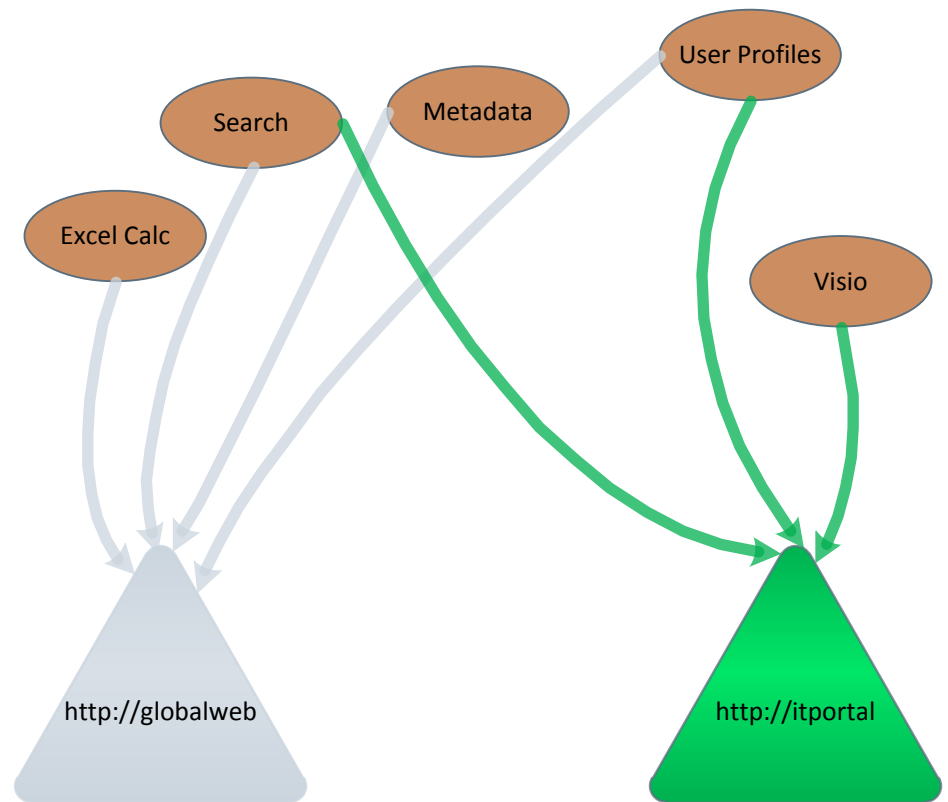
- Security is limited to the term set level
- All child terms inherit this visibility setting
- What you can't do is this:
 - Tag (Viewers)
 - Northwind (Andy & Bob)
 - Contoso (All Employees)
 - Oracle (Executive Team Only)

Design - Openness

- Folksonomy - Managed Keywords are usually “open”, and allow users to add new terms interactively through tagging.
- Taxonomy - Managed term stores are usually closed, and require administrators to add new terms.
- Open folksonomies and closed taxonomies is a good practice.
 - May become a best practice
 - Watch trends in casual social tags and evaluate “promotion” to formal taxonomy.

Design - Shared Service Applications

- The 2007 Shared Services Provider has been broken up.
- Each of its elements is now a Shared Service Application
- MMS is also a Shared Service Application
- Records/librarians/IA can administer metadata without becoming farm admins



Design – Content Types

- Use Document ID function uniformly among hub and subscribers – otherwise content types aren't published
- Check logs for content publishing if you have questions
 - Republish and use options & timer jobs to “force” updates
- Site columns, especially choice lists, can behave unexpectedly.
 - Column definitions and lookup values will be copied to each separate site collection
 - Lookup values can be locally edited and changed.
 - They reset to master values the next time the content type is published.
- Changes to Content Organizer, Records Management and Retention Policy reduce the need for more content types

Design for SQL 2008 R2 Master Data Services

- Not just for BI!
- Centralized repository of facts for metadata, dimensions, etc.
 - Provides Hierarchy of attributes and entities
 - Security, workflow, data batching and forensics
- Coexistence
 - Export from MDS to MMS; requires code for deltas
 - Consume MMS data into MDS
 - More to come...



Demo – Administration

- Central Admin
 - Federated Administration
 - Create term sets
 - Create terms and tags
 - Dynamic external “tags”
- Content Hubs
- Search

Physical and Logical Design

- Use Content Type Organizer rule to move new documents based on initial tags
- Use taxonomy and metadata to drive information lifecycle management processes (e.g. archiving)
 - Improve browsability and search relevance



Programming & Customization

- C# use
Microsoft.SharePoint.Taxonomy
- PowerShell
- Native web parts to display tag clouds
- Easily built web parts to add statistics on tag usage
- Ask me for a sample!

Tag Cloud

2007 2010 ACME baseball Blogs Calico Cat chart client demo Excel feline
football fun h20 I like it InfoPath Intergalactic Fuels July lobsterbisque mekko
microknowledge Mouse New York City Other Nassau Suffolk outerspace OWA PowerPivot
prairieschool recruiting rocketfuel SharePoint SPSBOS SQL water X-21

Screen Cleaner Z-22 Mouse Catcher

Tag Usage

Social Term	Uses
X-21 Screen Cleaner	6
2010	3
SharePoint	3
I like it	2
water	2
2007	1
PowerPivot	1
baseball	1
Cat	1
ACME	1
SharePointInternet	1
InfoPath	1



IA Solutions

- Use MMS to centrally define product tags to be shared across multiple sites and libraries
- Create centralized document repositories (Document Center)
- Define a term store for all departments
- Managed Metadata field in Document Center for Department
- Content Type Organizer rule to move new documents tagged as “Departments:Marketing” to a Marketing folder in the Doc Center
- Add a new “Departments” Managed Metadata field to Content Types in our collaboration sites and Document Center, and set default to “Departments:Marketing”

Dark Secrets of MMS

Top Secret

Dark Secrets of MMS

- No granular security on tag definitions or tags as applied
- No meta-metadata
 - You can define products and group them hierarchically, but you can't add a list price and then navigate or refine to find content by price
 - Can't tag a tag, can't rate a tag, can't "like" a tag
 - Can't organize "personal" tags
- Client application support limitations
 - SharePoint Workspace 2010 can read but not write MMS tags
 - InfoPath browser client can't read or write MMS tags



~~The 9 10~~ Some Adoption Rules

1. Start small. Do NOT put everything in a term set.
2. Find “friendlies”. Introduce keywords to users who understand the benefits
3. Use default tags in context.
4. External data. Use BCS if tag definitions are outside SharePoint (G/L codes)
5. Understand the security model and don’t put “secret” terms in a term store.
6. Extend administrative access for nontraditional administrators (e.g. corporate records staff)
7. Plan for and deploy centralized content types.
8. If security requirements are simple - and document sharing is important, use the Document Center to centralize document storage, and use content types and tags to classify docs.
9. Watch usage patterns for keywords and search. Unused typos in a keyword field (e.g. “holiday list”) can be deleted, and new project names can be promoted!
10. Synonyms! Synonyms! Synonyms!
11. Taxonomy does NOT belong to IT!!!

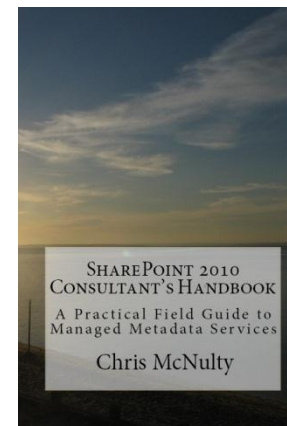


Resources - General

- From Microsoft:
 - SharePoint 2010 site: <http://sharepoint.microsoft.com>
 - SharePoint Team Blog: <http://blogs.msdn.com/sharepoint>
- From KMA (www.kma-llc.net)
 - Monthly webinars on SharePoint 2010 (EPM, upgrades, etc.)
 - March 2011: SharePoint for PMOs
 - White papers, blogs, presentations, news, and events
 - New Web Part for accessing tag statistics
- From me
 - SharePoint Saturday Redmond March 5 (MMS)
 - Boston Area SharePoint User Group March 9 (Business Intelligence)
 - SharePoint Saturday Boston – April 9 2011
 - Microsoft TechEd Atlanta – May 2011
 - SPTECHCON Boston – June 2011 (BI & MMS)



- 
- Open Questions
 - Contact Me
 - Ask the community
 - Microsoft Product Management for Metadata



Thank you...

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 - Twitter: @cmcnulty2000
 - LinkedIn: <http://www.linkedin.com/in/cmcnulty>

