

# SharePoint Center of Excellence Best Practices and Usage Recommendations V1.0

## Status of this Memo

This memo provides information for the NIH architecture community. This memo does not specify an NIH architecture standard of any kind. Distribution of this memo is unlimited.

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## 1. Introduction

The purpose of this NIHRFC is to provide a means by which the NIH Community can provide feedback regarding the Best Practices and Usage Recommendations of SharePoint as identified by the SharePoint Center of Excellence Domain Team.

## 2. Background

### 2.1. Summary

Multiple institutes and centers across the National Institutes of Health (NIH) expressed interest in determining the opportunities to collaborate in their usage of Microsoft SharePoint 2007 (referred to as “SharePoint” throughout this document). The National Heart, Lung and Blood Institute (NHLBI) has recognized the value in collaboration and commissioned the SharePoint Center of Excellence (COE) Domain Team to research and analyze how SharePoint is currently being utilized throughout the NIH community. The key objectives of the Domain Team were to collaboratively come to a collective agreement in identifying and creating SharePoint-usage Best Practices and Recommendations. At project kickoff, interest in creating Best Practices and recommendations existed around the following areas:

- Standards and Guidelines
- Governance
- Information Sharing / Collaboration (technical code, document repositories, etc.)
- Taxonomy and Structure
- Portal
- Workflow and Forms

### 2.2. Working Group Objectives

Each Working Group team was tasked with identifying and defining Best Practices and Recommendations for the COE within their area of focus. To ensure a consistent understanding of the session’s goals, “Best Practices” and “Recommendations” were defined as follows:

- **Best Practice:** A Best practice is a technique or method that is believed to be more effective at delivering a particular outcome than any other technique or method. With the proper processes, checks, and testing, a desired outcome can be delivered with fewer problems and unforeseen complications. Best practices can also be defined as the most efficient and effective (least amount of effort with the best results) way of accomplishing a task based on

repeatable procedures that have proven themselves over time for large numbers of people.

- **Recommendation:** A recommendation can be used to help depict a system by means of practical, action-oriented (rather than descriptive, explanatory, or expressive) import. The most common recommendations are commands, permissions, or prohibitions, and they can often describe reasons to act.

### 3. SharePoint Center of Excellence Best Practices and Recommendations

#### 3.1. Security Working Group

Security was identified as a component of the System Administration Best Practice Topic Area. The phrase “Portal” was removed from the title because SharePoint is a tool offering more capabilities than that of a pure portal. The Best Practices and Recommendations below pertain to SharePoint as a whole, as well as the usage of sites and site collections.

##### Best Practices

1. Use separate application pools for separate functionality, and it is recommended to have separate service accounts for each application pool
2. Limit the number of open ports as much possible when building external sites.
  - If possible, place the WebFront-Ends in the DMZ, or use tools like an ISA server when accessing WebFront-Ends within the corporate network
3. Use as few site owners as possible
  - Avoid granting SharePoint Site Owners group-level access to users that do not need full control of the site
4. Use a service level account as either the primary or secondary site collection administrator – and always have a secondary site collection administrator
  - Remember: Site Collection Administrators have higher rights than Site Owners
5. Avoid breaking SharePoint site inheritance as much as possible
  - When SharePoint subsites break inheritance, setup SharePoint groups for that specific subsite (ex: {sitename}Contributors or {sitename}Owners). The reason for this is that the SharePoint groups will be stored at the site collection level and this will help maintain and clarify what each group is for.
  - Subsites should be added or removed only on an “as needed” basis or in accordance to a governance plan
6. Do not add people to the SharePoint Site directly as it may create a burden when managing group permissions. SharePoint Site security is best managed via Active Directory Security Groups or SharePoint Security Groups.

7. Avoid deleting or changing default permission levels and/or SharePoint groups, but add more permission levels and or SharePoint groups if necessary.
8. Use clear and concise naming conventions and descriptions when creating permission levels to encourage consistency.
  - Remember to pre-plan the naming conventions to the group and document the permissions you will be using.
9. Implement Kerberos as an authentication method for Windows integrated authentication and allocate sufficient time to perform upgrades if the site is already operational.
10. Do not use a Search crawl account as a server farm administrator account
  - At least one web application should be setup with Windows Authentication so that search can crawl the site collection.
  - When building Forms Based Authenticated sites, ensure to “extend” the site for a Windows Authenticated version just so search can crawl the site.<sup>1</sup>
11. Ensure that service accounts have only the permissions needed - all users should not be local administrators on a server
12. Ensure Code Access Security (Developer’s Concept)<sup>2</sup>
  - When deploying to bin, write a CAS file
  - When deploying to GAC, no CAS is needed
  - In either instance, Full Trust should not be granted
13. Avoid using the server-name when setting up the SharePoint / email connection - use aliases ([noreply@SharePoint.com](mailto:noreply@SharePoint.com) or [jdoe@companyname.com](mailto:jdoe@companyname.com), for example) to ensure users recognize where emails are coming from.
14. Use a SQL-based anti-virus specific for SharePoint. This is more important in Extranet environments or with desktops with an unknown level of anti-virus security.
15. Define multiple tester accounts up front so that all functionality, from all levels of permissions, can be tested.
16. Ensure up-to-date installation of service packs and cumulative updates
  - Only utilize hot-fixes in the event of problems
  - Test new updates on Development and Staging Environments first before deploying to Production

### **Recommendations**

1. Use the standard NIH security assessment process to determine if SSL certificates are required.
2. User permissions should not be set as “Contributor” without considering that this enables them to delete content.
3. In the event of frequent breaking of SharePoint Sites Inheritance, a multiple site collection structure may be better suited for the environment.

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<sup>1</sup> <http://technet.microsoft.com/en-us/library/cc287954.aspx#Section2>

<sup>2</sup> [http://msdn.microsoft.com/en-us/library/930b76w0\(VS.71\).aspx](http://msdn.microsoft.com/en-us/library/930b76w0(VS.71).aspx)

4. Utilize web application policies when web applications need requirement enforcement.
5. Utilize auditing and usage policies on site collections, but be wary of its impact on the amount of SQL space this will require.
  - Consider third party tools that have auditing modules.
6. During Custom Development, be careful when using RunWithElevatedPrivileges
  - RunWithElevatedPrivileges impersonates the farm service accounts and has the highest rights available. Don't unintentionally give users high rights when developing custom components
7. Utilize development code reviews to review security holes<sup>3</sup>.
8. When configuring incoming emails for a list, it is recommended to choose the following setting: "Accept messages from authenticated users only?"
9. Utilize at least one Windows authenticated zone, even when using Forms Based Authentication (FBA) sites. FBA is a way to provide your own data store to authenticate users against using a web form as the input method.
10. Define Primary Interop Assemblies (PIA) content management<sup>4</sup>.
  - Options for governing: Signed SLAs, Auditing Reviews, Approval Workflow.
  - Utilize search keywords for common PIA mistakes.
11. Secure the retrieval of information from external sources<sup>5</sup>.
  - Avoid sending clear text usernames and passwords – this will not pose browser compatibility issues when implemented correctly.
  - Use Data Connection Libraries for Excel Services and InfoPath Services.
12. Plan out how to reset passwords when service account password resets are necessary (follow the Active Directory lifecycle).
13. Consider restricting file-types such as compressed file-types to reduce security risks and the addition of large files

### **3.2. Search Working Group**

The Search Working Group stems from the Customization and Development Best Practice Topic Area. The original approach to this topic was centered on expanding and enhancing the search capabilities of SharePoint, but was later expanded to also include the general use of SharePoint's Search capabilities.

#### **Best Practices**

1. Plan for find-ability, not search-ability – taxonomy is an important component of search
  - Important information should not be deep in a taxonomy tree structure; search relevancy rankings in SharePoint look at "where" the content is to determine

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<sup>3</sup> <http://msdn.microsoft.com/en-us/magazine/cc163312.aspx>

<sup>4</sup> <http://msdn.microsoft.com/en-us/library/aa302338.aspx>

<sup>5</sup> <http://office.microsoft.com/en-us/SharePointserver/HA101054761033.aspx%20and%20http://msdn.microsoft.com/en-us/library/ms772101.aspx>

- its importance in the search results. The closer a piece of information is to the top level of your site collection, the higher it's "relevancy" is for search.
2. Use the Search Center when publishing sites rather than adding search WebParts to custom pages<sup>6</sup>.
    - The Search Center will be created automatically when creating a site collection utilizing certain "publishing" templates.
    - If a "publishing" template is not used when creating the site collection, it can be turned on in the publishing features of the site collection. After the publishing feature is turned on, you can then create a new sub-site and use the Search Center template.
  3. Utilize Managed Properties to make advanced searching easier for users<sup>7</sup>.
    - Maintain a list of all created managed properties so that the site collection administrators understand what was created by the farm administrators.
  4. Create custom scopes to aid in how the end user searches (when appropriate)<sup>8</sup>.
    - Scopes can show up in multiple places on a MOSS site depending on how the site is setup. These scopes can show up in the dropdown box next to the search box, in the banner of the site, and on the Search Center page.
    - Set scopes up at appropriate level; don't set a scope up for the whole collection when it is only needed at a subsite.
  5. Establish a process for debugging search functionality issues.
    - Create a checklist for the search debugging process; it should show the steps to debug search issues and which person should perform each step.
    - Engage a Point of Contact where necessary to help combat issues (Farm Collection Admin, for example).
  6. Provide a search help link and/or a search help page so that users understand how to utilize the search functionality and where they can go to get help.
  7. Customize the Search Center page for a better user experience in situations where search will be heavily used
    - Customize the "paging" links on the Search Center page to avoid user confusion on what and how these paging links are used.
    - Utilize the third party search enhancements.

## Recommendations

1. Setup search functionality across various SharePoint Site Collections – this will encourage knowledge sharing across institutes.
2. Utilize Help Documentation for Search to ensure users are aware of all search capabilities.
3. Utilize keywords for searching commonly used acronyms.
4. Design Crawl Schedules before deploying the site<sup>9</sup>.

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<sup>6</sup> [http://msdn.microsoft.com/en-us/library/bb428855\(classic\).aspx](http://msdn.microsoft.com/en-us/library/bb428855(classic).aspx)

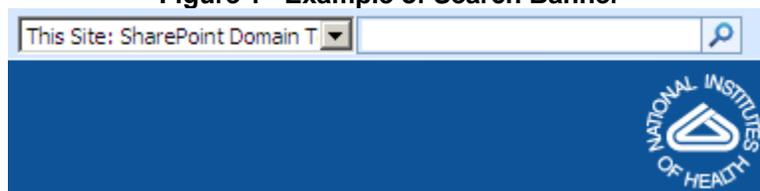
<sup>7</sup> <http://technet.microsoft.com/en-us/library/cc262933.aspx>

<sup>8</sup> <http://office.microsoft.com/en-us/SharePointserver/HA011604381033.aspx>

<sup>9</sup> <http://technet.microsoft.com/en-us/library/cc261690.aspx>

- Crawl during non-business hours.
  - Setup a periodic full crawl and an incremental crawl to run more often.
5. Use separate service accounts to run search crawls – do not use a MOSS Farm Service Account.
  6. Setup PDF IFilters for every SharePoint Farm to allow SharePoint to crawl PDF files<sup>10</sup>.
    - Setup the PDF icon when setting up PDF IFilters – it will show the PDF icon next to PDF file when they show up in search.
  7. Delegate controls should be used when changing search banner controls (Developer's Concept).<sup>11</sup>
    - This is a programmatic way to “replace” certain parts of a SharePoint site as long as that part was originally designed as a delegate control. The search banner on out-of-the-box SharePoint sites was designed as a delegate control - a developer can replace them by deploying a new delegate control to the site.
    - Do not change a master page just to change the search banner delegate control.
    - Figure 1 below illustrates an example of a search banner that could be a standard site level search box

**Figure 1 Example of Search Banner**



### **3.3. User Training, Marketing and Standard Operation Procedures Working Group**

This working group stems from the User Training Best Practice Topic Area. Based upon the interest in areas that pertain to improving users' ability to implement and use the tool, it was decided during the Kickoff workshop to combine the User Training and Standard Operating Procedures topics and add a Marketing (as it refers to creating “buy-in” from users) component to the Working Group's discussion.

#### **Best Practices**

1. Provide a document detailing advanced options in SharePoint to inform and educate users.

<sup>10</sup> <http://www.adobe.com/support/downloads/detail.jsp?ftpID=2611>

<sup>11</sup> <http://msdn.microsoft.com/en-us/library/ms463169.aspx>

- The document should show the most commonly used advanced options, explain that sites should start simple and then slowly these advanced options can be added for enhanced usability.
- 2. Define archiving and records management processes and how SharePoint can be used to support these tasks.
- 3. Provide guidance on how SharePoint can improve archiving and records management processes. The benefits need to be shared more explicitly with the ICs - the decision to use SharePoint needs to be a top down decision.
  - Expand momentum for using SharePoint from a “grassroots” perspective.
  - Examples of benefits over a file system:
    - Versioning (i.e.: footprints)
    - Workflows
    - Rights Management
    - Records Management
    - Improved Search Capabilities (Section 3.2 provides greater details)
  - SharePoint is not just a document management system or a document collaboration tool; it provides a rich set of features such as Portal, Business Intelligence, Business Processes, Search and Content Management.
- 4. Create and utilize a communication plan.
  - The communication plan should consistently market the product. For example a quarterly newsletter.
  - The COE should have a communication plan at the NIH level and each IC should consider creating a more directed plan.
- 5. Standardize the use of Standard Operation Procedures (SOPs) and its components as it pertains to SharePoint. Use the following model as an example:
  - Operations
    - Technical Requirements
    - Business Requirements
    - Maintenance
    - Back-up, Restore, & Disaster Recovery
    - Design/Topology
    - Security
  - Roles & Responsibilities
    - Strategy Team
    - Tactical Team
    - Support Team
    - Individual Roles
  - Policies & Procedures
    - Customization
    - Creating New Content
    - Site & Document Life Cycle
    - SharePoint Feature Management
    - Support

- Communications
  - Training
  - Identify the functionality or greater business need to drive users to the environment
  - Share Success stories and testimonials
  - Develop feedback mechanisms or communication channels from end users to express their likes/dislikes and what works/what doesn't work to encourage further SharePoint adoption and enhancement
  - Practice what you promote – engage senior staff in using SharePoint to encourage a trickle-down effect
6. Utilize an NIH Governance Document or Guidelines that provide guidance on developing governance policies, governance artifacts and the areas they should cover.
  7. Standardize the training necessary for Site Owners/Administrators within ICs
    - Identify if there is a need for end user SharePoint training
    - Consider creating a requirement or prerequisite that requires users to attend user training before attending an administrator class.
  8. Users need to have an understanding of the benefits of collaboration and how it is used within NIH before engaging SharePoint or COE recommendations.
    - Utilize the COE as a SharePoint Help Center that provides further SharePoint knowledge sharing.
      - Provide presentations, showcase sites, and map examples to best practices
      - Store documentation and resources
      - Begin discussions on third party tools
    - Standardize terminology (i.e.: glossary)
    - Clarify versioning terms (major and minor)
  9. Change the habit, not the culture; Change user habits and the culture (of using a new technology) will follow.

### **Recommendations**

1. Ensure there is a clear link from the NIH EA Site to the future SharePoint Center of Excellence site
2. On the NIH EA website - Review the definition of what SharePoint is and how it can be used as a collaborative, document management, workflow, and/or portal tool:
  - Is this definition accurate?
  - Is there more than one definition?
  - What should it be used for?
  - How does it fit the NIH EA approach?
  - Add links between the COE, EA Website and CIT Service catalog
3. Develop function-specific help resources

4. Develop business functionality for the specific help resources as needed. These resources should be in context of what the users do on the particular SharePoint site (i.e.: workflow, business process, etc...)
5. Provide clarity on the resources across the ICs and how these resources are assigned
  - Identify in greater detail what users are requesting and development trends
  - Identify the need for new courses or re-center/reformat existing classes
    - Power user vs. end user class
    - Target classes to levels of experience
  - Target all classes for the right audience to enable trainers to provide the most value
  - Scenario or contextual based training may be more beneficial for users
    - Break classes into topics or functions (Workflow training, document library training, publishing, etc.)
  - Identify if an NIH SharePoint certification that would be valuable to users and/or leadership
6. Create a SharePoint User Guide and a “Quick Reference Guide” to encourage fast adoption and to supply easy access to help resources

### **3.4. Usability/Common Navigational Standards Working Group**

Common Navigational Standards are part of the Governance Best Practice Topic Area. The phrase “Usability” was added as the Kickoff Workshop participants felt that usability would closely relate to navigation.

#### **Best Practices**

1. Utilize the feature of mapping document libraries to network drives (My Network Places)
  - In the event of a user being unable to access the library, if they are mapped to a network drive, they would still be able to access the contents of the library
2. Plan the usability testing ahead of time
  - A possibility of a planning document or checklist should be utilized within the ICs
  - A planning document is imperative to the success of usability within SharePoint
  - Carefully think through the templates you are going to use before setting up a SharePoint site
  - Defining requirements ahead of time is key to having a usable SharePoint site
  - Use only the components needed for a specific SharePoint site, concentrate on functionality
3. Use only the components needed for a site

- Some of the out of the box templates have a great deal of capability that is simply overwhelming for the requirements of some site
  - Concentrate on functionality
4. Capture repeatable processes in reusable site templates
  5. Do not use spaces when creating/naming lists and libraries
    - Using spaces will generate a “bad” URL; spaces cause a “%20” in the URL
    - After the list or library is created, the space can be added at a later date
  6. Master pages should provide “more accessibility mode” in an active setting
    - If master pages are customized, be sure this is available; if it is not active, users can turn it on by hitting tab a couple of times when they go to the SharePoint site
  7. When customizing Master Pages, do not remove the “more accessibility mode” in SharePoint<sup>12</sup>
    - Since more accessibility mode is a hidden component of the Master Page, it can be easily removed in heavily customized SharePoint sites. Test for the existence of this functionality after customizing SharePoint Master Pages.
  8. Standardize the technology for testing accessibility
    - Consider utilization of various tools for section 508/accessibility testing and compliance
  9. Conduct compatibility testing across various browsers and platforms. Utilize government standards.
    - More information can be found at [www.usability.gov](http://www.usability.gov) and <http://www.section508.gov/>
  10. NIH should standardize out of the box navigation (Top menu, Quick Launch on left, breadcrumb).
    - These should be labeled correctly and “skip navigations” for each part of the navigation (this will help with 508)
      - a. “Skip navigations” is an accessibility term – this recommendation is referring to the hidden navigation elements on a page that users do not see, but are utilized by accessibility readers (often called “screen readers”)
      - b. These navigation elements are standard web behavior components that allow someone using an accessibility reader to skip directly to the content of the page
    - NIH would need a custom template to do this; some third party tools have templates that can help.
  11. Use concise title links and strong naming conventions to support a user knowing where they are in the site
    - Breadcrumbs usually help – if they are removed be sure there is another way for users to find where they are in the site
    - Don’t have duplicate named links

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<sup>12</sup> <http://office.microsoft.com/en-us/SharePointtechnology/HA101737231033.aspx#1>

12. Ensure a common look and feel to support consistency when using different templates.
  - Same headers, menus, colors, etc. are ideal; the user should feel like they are in the same site as they navigate throughout.

### **Recommendations**

1. Use a “feature gallery” for commonly used templates that use and demonstrate usability and 508 best practices
2. Utilize Site Maps on sites to provide users an additional method to finding information
3. Create lists or pages as an alternative to creating subsites to improve site management and organization
4. Use various third party tools to test the 508 compliance of the content that end users add to the site
5. Begin reviewing third party Rich Text Editor replacement solutions
  - As SharePoint’s native Rich Text Editor doesn’t work as intended in Firefox, consider third party replacement
6. Utilize page descriptions - short descriptions - on pages for a synopsis of the content within

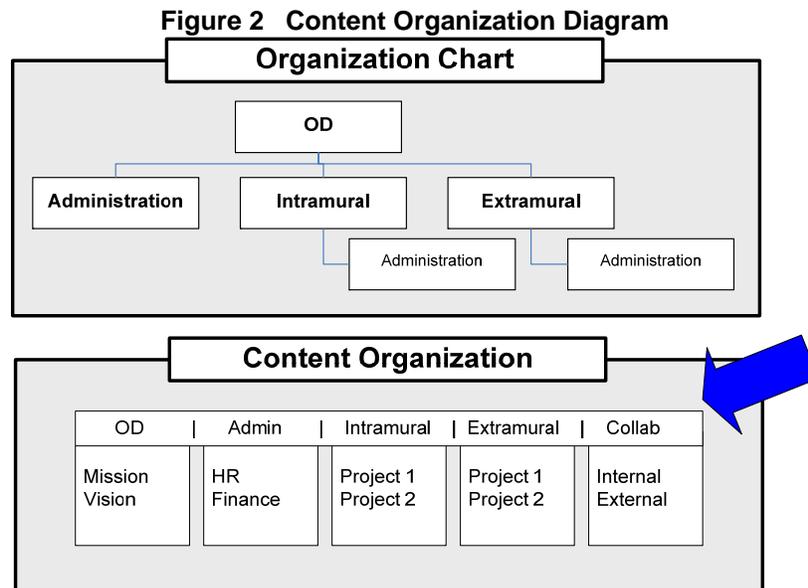
### **3.5. Portal Structure/Site Taxonomy Working Group**

The Portal Structure and Site Taxonomy Working Group stems from the Governance Best Practice Topic Area. One of the key points and driving forces behind this group is the need for the ICs to utilize a standard approach to organizing content within SharePoint sites.

#### **Best Practices**

1. Define at the NIH level what is available to users and ICs to promote consistency
  - Types of Sites
  - Collaboration Site Publishing Site Publishing Portal Corporate Portal Department and Team Sites Business Application
  - Intranet
    - Front Office
    - Back Office
  - Extranet
  - Internet
2. Understand what is available from CIT – they can provide some resources, while others will require resources directly from the IC
  - If something new needs to be installed, CIT may not support the technology
3. Content is King – plan around different terminologies and taxonomies
  - Who is the audience?
    - NIH business users

- “Corporate” (Greater NIH)
  - Internal or inward-facing (IC specific)
  - Public facing
  - Business partners
    - Government agencies
    - Consultants/contractors without an Active Directory account
  - What is the content and what is its intended use?
  - Remember: Content is King – users visit/use the site for the sole purpose of finding information
4. Create a site taxonomy or structure based on the content, not the organizational chart
- The diagram is a sample structure of SharePoint Portal Content Organization intended to invoke a cross-functional collaboration across the whole organization. Although it is a recommended approach, it may not be suitable for all organizations; it is necessary to organize content in a manner best suited to the needs of the users.



5. Create a common Content Type definition for use in repeatable list structures<sup>13</sup>
- Develop high-level reusable content types that apply across ICs
  - The content types can hold templates for different documents and be 508 compliant.
6. Plan the information architecture based on the business, not the technology – challenges with SharePoint usually stem from business challenges
- Understand the difference between information architecture at the NIH level and what the tool refers to as “information architecture”

<sup>13</sup> <http://msdn.microsoft.com/en-us/library/ms472236.aspx>

### **Recommendations**

1. Define how SharePoint will work at the upper NIH level – expand this to become the NIH Collaborative Portal
  - Develop this into a corporate index of all sites, definitions, content-roll-up
  - Need to identify when content can move to this portal level or to the IC level
  - Begin this site as an “Enterprise Index” of all NIH sites and this will naturally grow into a Collaborative Portal
2. Limit folder use in SharePoint document libraries and lists. You cannot assign metadata tags or views to folders
  - Folders are commonly used outside of SharePoint, but the tool may offer a more applicable way to view or separate lists
  - Define document libraries and/or list structures to be consistent across ICs as much as possible
3. Map current terminology on the current portal to what is meant with regard to SharePoint - implement this via a site-wide glossary
4. Define what is available on a site-collection, web-application, sub-site, etc. – users are unclear about “what content can be found where”.
  - Include clarity on different levels of SharePoint – WSS, MOSS Standard, MOSS Enterprise
5. Define the best practices and limitations around SharePoint Designer utilization. Uncontrolled usage of the tool may create an unnecessary burden as users without proper training and experience may affect or destroy SharePoint site content and structure.
6. Identify how SharePoint can be used to link cross-IC processes and flows
7. Identify how SharePoint is driving business value – this will yield methods to providing a greater impact

### **3.6. Portal Features, Business Process Workflows and Forms Working Group**

This working group is a combination of topics from within the Native MOSS Functionality Best Practice Topic Area. Due to the high level of interest in each part, the working group combined topics as each are closely related.

#### **Best Practices**

1. Use “out of the box” functionality before developing or building custom functionality or features.
  - Thoroughly research and understand SharePoint features and functionality
  - Identify and define specific user requirements
  - Review requirements and – if possible – map requirements to “out of the box” capabilities

- Illustrate to users that SharePoint's built in capabilities may provide the functionality they are looking for.
  - Identify and define the features needed and used by the function or role of the department or institution.
2. Workflow should not be implemented until the Business Process has been modeled.
    - Ensure that when workflow is requested, it is actually needed; creating a new workflow may not always be needed
    - Gather requirements for Workflows
      - Utilize flow charts
      - Evaluate the current process and consider helping the business modify the process before building a Workflow; often the current process can be improved when implementing new Workflow technology
    - Utilize all stakeholders early in the workflow requirement gathering process
  3. Audience targeting should not be used as a security feature (audience targeting is a formatting feature). Users would still have access to information; it would still be visible to users without proper security rights<sup>14</sup>.

### **Recommendations**

1. Make sure a feature meets requirements – do not turn on a feature simply because it is provided
2. Ensure there is a Business Case for activating features and functionality
3. Utilize user pain points and provide features and functionality that improve usability
4. Consider the following when deciding to use MySites or not
  - MySites can be a “sandbox” for users to get to know the tool and its capabilities
  - MySites can be considered Social Networking / Web 2.0 capability
  - Utilize MySites so that users can store personal documents instead of using shared drives
5. Utilize MySites so that users can store work-related documents
  - Don't use MySites like a “team site.” If a user needs a team site, they should request it instead of making it a sub-site under their MySite.
  - Set up quota limits on MySites to control the amount of space the users occupy
6. Use the advantages of document collaboration
  - Utilize document versioning in SharePoint
  - Documents stored on a Shared Drive can be imported into SharePoint in order to take advantage of the document collaboration features.
7. Utilize InfoPath Data Connection Library best practices<sup>15</sup>.
8. Define when to use the Business Data Catalog (BDC)<sup>16</sup>

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<sup>14</sup> <http://office.microsoft.com/en-us/SharePointserver/HA101690531033.aspx>

<sup>15</sup> <http://msdn.microsoft.com/en-us/library/ms772101.aspx>

- The BDC is useful when external data needs to be “searchable”
9. Build a “Feature Gallery” for features that are needed across NIH
    - For example, a gallery for WebParts, Master Pages, Page Layouts, Custom Fields, Custom Actions, etc.
    - This library is a common repository of features that any division in NIH can utilize and share common functionality
    - Identify where this library should be stored and who will maintain it
  10. Define plans to utilize Active Directory so that creating custom profile properties is not necessary
    - Form a group to collectively identify a list of information that should be added to active directory (Job Titles, Functional responsibilities, etc.)
    - Define ability to connect to NED, or provide ability to update NED through SharePoint (link, NED WebPart, etc.)
    - Review the information that is already housed in NED and Active Directory – a great deal of time and effort was spent on NED and the information sought may already be available
  11. Identify Office Integration considerations
    - There is a diverse usage of Office 2003/2007 because of hardware considerations
    - MOSS 2010 release may have different hardware/software needs

#### 4. References

1. Microsoft Corporation – [www.microsoft.com](http://www.microsoft.com); Several Microsoft domain websites were consulted. See footnotes embedded in the document for specific pages.
2. Adobe – [www.adobe.com](http://www.adobe.com); Several Adobe domain websites were consulted. See footnotes embedded in the document for specific pages.
3. [Usability.Gov](http://Usability.Gov) - the primary government source for information on usability and user-centered design. It provides guidance and tools on how to make Web sites and other communication systems more usable and useful.
4. [Section508.Gov](http://Section508.Gov) - central hub for GSA's section 508 training and information resources.

#### 5. Contact

To contact the NIHRFC Editor, send an email message to [mobassalehz@nhlbi.nih.gov](mailto:mobassalehz@nhlbi.nih.gov).

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<sup>16</sup> <http://msdn.microsoft.com/en-us/library/ms563661.aspx>

## 6. Security Considerations

Security considerations are discussed in section 3.1.

## 7. Changes

Version	Change	Authority	Author of Change
0.1	Original Document Creation		Z. Mobassaleh
0.2	Updated per RFC comments		Z. Mobassaleh
0.3	Updated to reflect the requested changes from the ITMC EA Subcommittee		K. Ohlson
1.0	ARB moved to endorse the NIHRFC as a Best Community Practice.		K. Ohlson

## 8. Author's Address

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## 9. Appendix: NIH RFC - Comments Received

<b>Comment</b>	The only comment I have is that this is great work. Very detailed, very organized, and very well researched and thought out. I'll certainly make use of this.  Well done!
<b>Submitted By</b>	John Prue - CIO, NIDCR
<b>Reply/Action Taken</b>	N/A
<b>Comment</b>	The next version of MOSS 2007 is listed as MOSS 2010, but that product will just be called Microsoft SharePoint 2010, dropping the MOSS acronym.
<b>Submitted By</b>	Mark Siegal - Web Manager, NIAAA
<b>Reply/Action Taken</b>	Agreed
<b>Comment</b>	I have a couple comments on the NIHRFC0040: a. Sec 2.2, Recommendation (p.2): the definition of the recommendation is hard to understand. b. Sec 3.1, Recommendation #9 (p.5): Please spell out FBA. c. Sec 3.3, Best Practices #3 (p.7): "Search capability" could also listed under "Examples of benefits..." d. Sec 3.3, Recommendation #1 (p.9): The location of that definition should be specified more precisely. e. Sec 3.4, Best Practices #1 (p.10): The sub-bullet should be rephrased, so it does not sound like an access control issue (i.e. people can't access documents from SharePoint, but they can access them from a file share?) f. Sec 3.4, Best Practices #10 (p.10): It is not clear what "skip navigations for each part of the navigation" mean. g. Sec 3.5, Recommendation #2 (p.13): Please clarify "... use lists instead". Did you mean using SharePoint lists instead of document libraries?
<b>Submitted By</b>	Marton Nagy - (NIMH)
<b>Reply/Action Taken</b>	a. Please clarify b. FBA refers to "Forms Based Authentication" – it is a way to provide your own data store to authenticate users against using a web form as the input method. c. Agreed – The reason it may have not been included here was due to it being more thoroughly covered by the "Search" working group's Best Practices and Recommendations. d. Agreed - There are several definitions of what SharePoint is and how it should be used. The participants of the Working Groups were pointing out that SharePoint adoption started in more of a "grassroots" manner and the direction on how, where, and why it should be used, if at all, has not been clearly outlined; SharePoint can be used as a collaboration, document management, workflow, or portal tool. The recommendation was for NIH to sync its overall Enterprise Architecture definition as to what SharePoint is and how it fits into the NIH's EA approach. e. Agreed – the goal of the was to say that in the event a user is unable to access the library, if they have mapped the SharePoint library to their network drive, they could still access the contents as though it were a file share.

	<ul style="list-style-type: none"><li>f. "Skip Navigation" is an accessibility term. Essentially, there are hidden navigation elements that users do not see on the webpage, but, accessibility readers do see them. They allow someone using an accessibility reader to skip directly to the content of the page. This is standard web behavior that is recognizable by people who use accessibility readers; it enables them to not tab through all navigation and other elements in a webpage in order to get to the main content of the page.</li><li>g. This bullet should have been written to say "Limit folder use in SharePoint document libraries and lists. You cannot assign metadata tags or views to folders." The intent is to say that there are disadvantages to using folders in SharePoint. The problem is that users are very used to folders because of file systems, so there is a tendency to use them heavily in SharePoint even when it is more applicable to use a different view or separate list. An additional point is to recommended to define document libraries and/or list structures to be consistent across ICs as much as possible</li></ul>
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