

Developing an Effective Email Management Solution in SharePoint

Introduction - The Case for SharePoint

Email management is a critical requirement for many organizations today, however deploying and supporting an effective email management solution can pose significant challenges for IT. In addition to heavy storage requirements, email management systems must support categorization of emails, preservation of critical metadata, and accurate, timely search of message content.

Use cases will vary between organizations. However, requirements are often driven by three broad scenarios:

- 1) collaboration, i.e. members of a team or department who need to share emails as part of a project,
- 2) retention, i.e. the need to store and search emails and attachments for business continuity, regulatory, or legal reasons, and
- 3) archiving i.e. to reduce storage requirements or to prune email archives.

This white paper will focus primarily on the collaboration and retention scenarios, though many of the concepts can be applied to the other scenario as well.

Purpose of this document

This white paper is intended for IT professionals in organizations that have standardized on Microsoft Outlook as their email client and are evaluating a solution for email collaboration, project/records management, and/or archival that is based on Microsoft SharePoint.

Email collaboration solutions for Microsoft Outlook users have traditionally been based on Exchange Public Folders (EPF's), now called Managed Folders in Exchange 2007/2010. Microsoft has updated its guidance for the application of Managed Folders and is recommending SharePoint for several of these scenarios.

SharePoint has several advantages for managing emails and attachments. Firstly, it has lower administrative overhead associated with the creation, permissions, maintenance, and deletion of shared folders. Secondly, through the use of SharePoint content types, administrators can easily set global retention policies on email so that it can be automatically deleted or routed to a SharePoint Records Center or other email archive for storage. Finally, SharePoint's powerful search capabilities coupled with rich support for metadata make it a great platform for organizing and locating emails and attachments.

For the balance of this white paper, we will assume your organization has chosen SharePoint for its email management solution.

Requirements for a Successful Implementation

It will come as no surprise that the requirements for email collaboration vary widely depending on the scenario that needs to be supported. A common scenario is project management, since emails and attachments often form the critical part of project documentation. Storage in SharePoint ensures that the content is structured so it can be retained and located easily through search. This also makes it easy for new team members to get up to speed when they join a project mid-stream. Another common scenario is departmental communications (e.g. "all emails from product management") where emails are used to track issues or topics. Yet another is personal email management where emails and attachments are moved out of Exchange to SharePoint MySites for longer term storage, to avoid inbox size limitations and/or to avoid the use of .PST files.

Email management is a specific use case within the broader category of Enterprise Content Management (ECM), so it's instructive to look at

what's been published on the topic of successful ECM implementations. A Microsoft white paper entitled "Enterprise Content Management: Breaking the Barriers to Broad User Adoption" lays out the "Keys to Successful ECM". In summary, they are:

- Maximize User Acceptance
- Minimize the Burden on IT
- Meet Diverse Organizational Needs

Ease of use and user adoption are generally top of mind when developing an email management solution. At the end of the day, users will determine the quantity of content that is captured by the system and the quality of classification. The above mentioned white paper reinforces this point as follows:

"Perhaps the most critical factor in ECM success is how well a system is embraced by its users. Even if every other ECM goal is met, any system that fails in this regard will have limited success. On the flip side, users will extol a system that they perceive as streamlining their workday, improving their productivity, and making their jobs easier." (p. 5)

SharePoint has gained widespread acceptance in part because it is a highly flexible, self-serve platform. Users have become accustomed to setting up sites and document libraries on their own and an email management solution in SharePoint must be just as flexible. From the IT perspective, self-provisioning has the benefit of reducing the workload associated with site and workspace setup. The Microsoft white paper states:

"If the ECM solution requires extensive IT involvement, professional developers, or consultants to set up new sites and workflow processes, many business needs will be left unresolved even though the organization has invested in the technology to meet these needs." (p. 5)

The flexibility of SharePoint enables organizations to implement different classification schemes, enabling a solution to meet a "diverse set of organizational needs", the third key to ECM success. In the case of SharePoint 2007/2010, this requires setting metadata and content type. In fact, knowledge management best practices dictate that documents (including email) be classified by users at the time they are uploaded to the server. However, for a diverse set of users to gain this benefit, the setting of custom metadata has to fit seamlessly into their everyday workflow. Again, from the Microsoft white paper:

"If users are asked to add properties to a document, for instance, they will do so more willingly if the opportunity to add these is provided right within the authoring application they are working in." (p. 5)

Things to Consider When Choosing a Solution

Solution architects have several options for email management in SharePoint and every approach has its own set of advantages and limitations. The following list summarizes some of the variables that will need to be evaluated.

- d) User Interface for Moving Emails to SharePoint** – The UI is key to rapid user acceptance of any email management solution. Alternatives for moving email include: 1) adding SharePoint document libraries as an email recipient, 2) selecting "send to" from a toolbar in Outlook, or 3) dragging and dropping. MS Outlook users have come to expect they can just drag content into Outlook folders to move it to Exchange or PSTs. Solutions that enable users to drag-and-drop to SharePoint folders will reduce training time and increase adoption.
- e) Server-Based or Client-Based Solutions** – While organizations have standardized on a client-based solution (Outlook) for users to manage their inbox, email collaboration solutions are often based entirely on server functionality. A solution that leverages client technology for email and attachment management can offer ease-of-use advantages.

- f) Email File Type** – Some solutions that move emails to SharePoint from Outlook will strip off email attachments and store the email body in .eml format (which cannot be opened by Outlook). Storing emails directly in a .msg format keeps the emails and attachments together (if desired) and enables users to easily open them later in Outlook.
- g) User Provisioned Library Setup** – One of the great advantages of SharePoint is that users can easily setup and configure document libraries and lists on their own, then move content to them without requiring IT support. Solutions that require IT to setup the association between Outlook folders and SharePoint libraries might not gain widespread acceptance by end users and can create a lot of work for IT.
- h) Automatic Metadata Extraction** – Email metadata (i.e. To, From, etc.) is critical for the success of any solution since it enables emails to be classified for organization with SharePoint views and search. Emails have over 20 distinct properties - it is not practical for users to enter these manually. A successful email solution should automatically capture all required email properties and store them in SharePoint. This solution should be configurable so email properties can be properly mapped to SharePoint metadata.
- i) Support for Custom Properties** – Requirements often extend beyond the capture of standard email properties to custom metadata properties (such as project #, document type, or workflow). A versatile email management solution should enable users to set custom properties at the time they move emails and attachments into SharePoint. This eliminates the need for them to set custom metadata in SharePoint later – a deterrent to adoption.
- j) Support for Content Types** – SharePoint 2007/2010 content types are very powerful for centrally administering document retention policies and defining required metadata. When users move emails and attachments to SharePoint they should be able to pick the applicable content type. The solution should also update available metadata fields depending on the content type chosen so that users do not need to set required metadata later in SharePoint.
- k) Offline Access to SharePoint Content** – A certain percentage of users will require offline access to email content stored in SharePoint so they can access it when they are outside the office (on the plane, at a client site, etc.). This need is often high in project teams. Choose a solution that provides users the capability to selectively cache content they have moved to SharePoint. Caching also delivers instant SharePoint access for remote workers who may experience latency issues with browser-based access.

Out-of-the-Box Solutions for Interfacing Outlook with SharePoint

Requirements for email management solutions often include the ability to move content through a client interface to a managed server environment. Microsoft offers a number of out-of-the-box solutions for moving emails and attachments to SharePoint from within Outlook. In summary, these are:

- Drag-and-drop to SharePoint Explorer View
- Drag-and-drop to SharePoint Workspace
- “Connect to Outlook” Discussions
- Send Emails to SharePoint Document Libraries and Lists
- Exchange 2007 Managed Folders

Drag-and-drop to SharePoint Explorer View – Emails can be drag-and dropped for Outlook into SharePoint Explorer View. This saves the email body and attachments in a single .msg file. However, users cannot set content type or set custom metadata properties through this method. More importantly, standard message fields (such as To, From, etc.) are not captured. Users must go through the browser to later to add this information. While drag-and-drop to SharePoint Explorer View is a convenient method to upload a few emails, it is not recommended for ongoing email management in SharePoint for project/case management or records management applications.



Figure 1 – Email Upload to SharePoint Using the SharePoint Explorer View

Drag-and-drop to SharePoint Workspace – Emails can be drag-and-dropped from Outlook into SharePoint Workspace. However, the same limitations of dragging and dropping from Outlook to SharePoint Explorer View remain, since users cannot set content type and email message properties are not extracted as metadata. The user must go through the browser to later add this information. Email and file metadata cannot be edited inside SharePoint Workspace.

“Connect to Outlook” Discussions – Outlook 2003 does not support direct upload of emails, and attachments to SharePoint and Outlook 2007/2010 doesn’t upload documents directly to SharePoint document libraries. It does, however, provide the ability to upload email messages to SharePoint 2007/2010 Discussion lists. The “Subject” and “Body” properties are captured, but the majority of email metadata (e.g. To, From, Cc, Received, etc.) is lost or changed in this process. For example, Outlook changes “From” to the person who added the email to the Discussion list, not the original author of the email. Many organizations require full metadata extraction for collaboration purposes only. Storing email in a discussion list is usually not considered an option for email retention purposes.

Send Emails to SharePoint Document Libraries and Lists – SharePoint enables users to send emails (and attachments) to a document library that has been properly configured; however, the attachments are stripped off and stored separately while the body of the email is stored as a .eml file that cannot be opened by Outlook. Like the previous solutions, this method does not allow users to set content types or specify metadata.

Exchange 2007 Managed Folders – Because of the previous limitations, Microsoft generally recommends using Exchange 2007 Managed Folders with auto-copy to SharePoint for any serious email management application. Managed folders appear in the Outlook folder tree, making them a convenient and easy-to-use location for users to drag-and-drop emails from their inbox or other folders. An Exchange administrator can then configure a managed folder to auto-copy items added directly into a corresponding SharePoint library. While this is a very powerful capability, it also represents a significant bottleneck since the creation and linking of the managed folder in Outlook to the corresponding SharePoint library can only be done by an Exchange administrator. This could represent a significant workload for IT with thousands of team sites and takes away from the goal of SharePoint as a user-administered platform. **Important: this feature has been removed from Exchange 2010.**

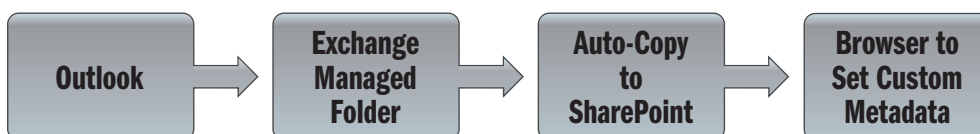


Figure 2 – Email Upload to SharePoint Using Exchange Managed Folders

All of the previously mentioned methods share the same problem that users cannot configure content types or metadata at the time of moving the item into SharePoint. This means users must subsequently access the SharePoint library through the browser to set the required properties – this can be an annoyance for users, and also a problem for IT trying to enforce adherence to corporate document management standards.

The Colligo Contributor Add-In for Outlook Solution

Colligo Contributor Add-In integrates many SharePoint elements into the Outlook interface, including document libraries, lists, metadata, views, and content types. It also includes special support for Outlook emails (discussed later). It’s a small .NET application that’s installed either by the user or, in an enterprise deployment, by IT using a silent install. There are a number of configuration options available that can be applied

on the .msi during installation, updated using a login script, or using the Contributor Configuration Editor. The Contributor Add-In does not require server installations or configuration other than conventional SharePoint (MOSS, WSS, or Foundation).

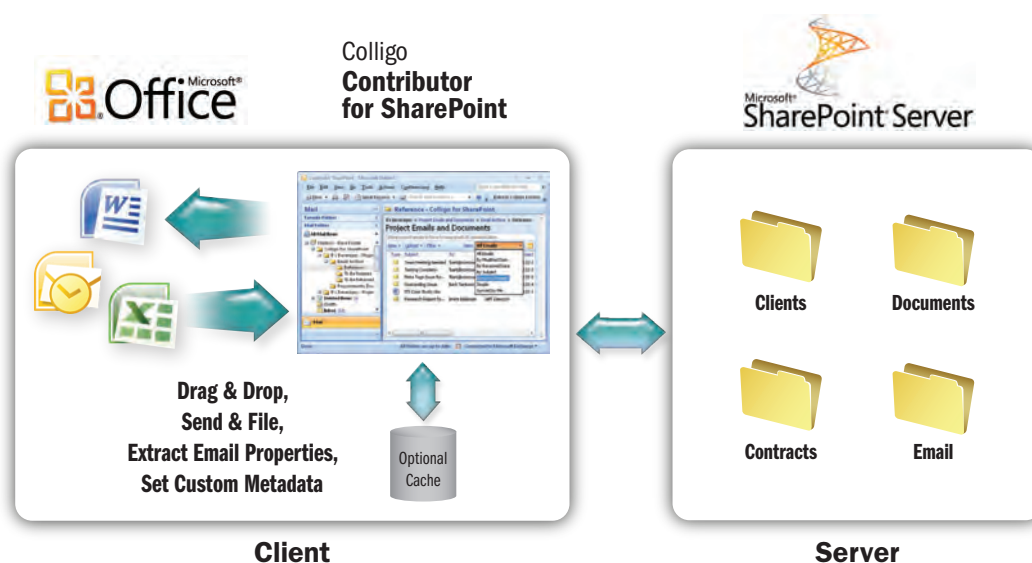


Figure 3 – Colligo Contributor Outlook Add-In

As shown in Figure 3, with Contributor Add-In, files and emails can be dragged and dropped into SharePoint document libraries that are accessible through the Outlook folder tree. Emails and attachments can be saved directly to SharePoint when sending from Outlook by using the Send & File feature. Emails can also be moved or copied into SharePoint automatically using Outlook rules. Depending on the sync configuration and whether users are connected to the network, files and emails are immediately uploaded to the server or cached for automatic synchronization the next time users are online.

SharePoint libraries and lists are added to Outlook using the “Connect to Outlook” button that is automatically installed on the Internet Explorer toolbar. This enables users to create a SharePoint folder in Outlook in a self-serve fashion with no IT administration required. It reduces the hassle for both users and IT compared to Exchange 2007 Managed Folders with auto-copy, which require IT to set up the link to each SharePoint document library. Optionally, IT administrators can push out a configuration file to the client that automatically links a set of document libraries and folders to Outlook without user intervention. This file can also be used to manage a number of configuration options, including default metadata for individual folders.

Colligo Contributor Add-In can synchronize many SharePoint elements, and has special capabilities to handle emails and attachments. When an email is dragged from the inbox or other Outlook folder into an email library, or saved to SharePoint using the Send & File feature, an event handler on the client extracts the message fields and automatically populates the corresponding metadata fields before the file is stored in the document library. Users can also set the content type and add custom metadata at that time, or later (from within Outlook), for further classification. The email, attachments, and metadata are immediately uploaded to SharePoint as a .msg file with an automatically generated unique name.

Attachments can also be dragged and dropped into document libraries. Users can be optionally prompted to add custom metadata to classify attachments. Files stored in SharePoint document libraries that are cached in Outlook can be dragged onto emails as attachments. Figure 4 shows how SharePoint appears in the Outlook interface.

This highlights one of the big advantages of Colligo Contributor: users can set content type and metadata at the time content is moved into SharePoint. This means that they do not need to go to the browser afterwards to set required metadata or change the content type. With Contributor, users always stay in the Outlook interface.

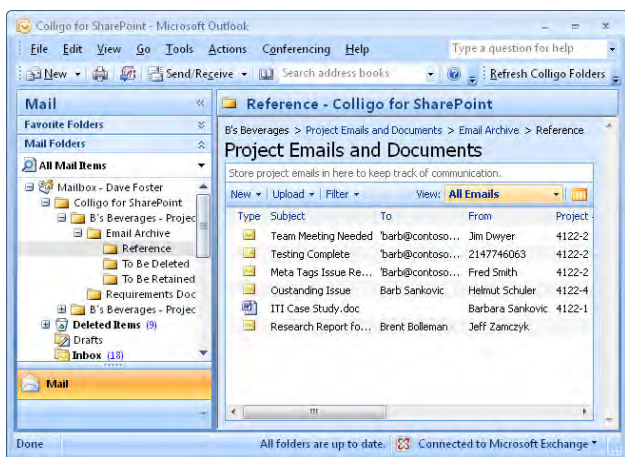


Figure 4 – SharePoint Document Libraries and Folders in the Mailbox Folder Tree

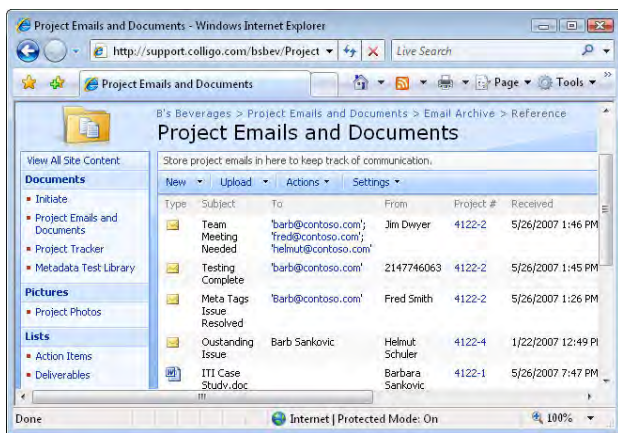


Figure 6 – SharePoint Document Library Setup for Emails and Attachments

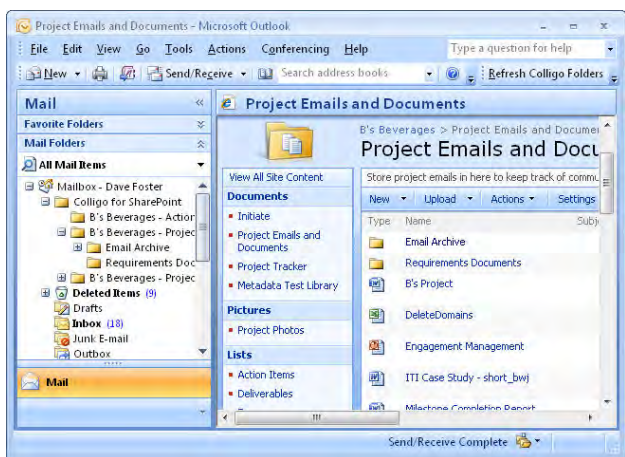


Figure 7 – Online-only Document Library

Contributor provides extensive support for metadata. Folder-level metadata support fills in a SharePoint gap by enabling users, or IT through the configuration file mentioned earlier, to set default metadata properties at the folder- or list-level. Metadata prompting can then be turned off so users need only drop content into a folder to automatically upload and set default metadata. Contributor also provides Office 2007/2010 metadata support which enables users to set metadata through the “Document Properties” pane in Office as an alternative to the Contributor “New Item” dialog.

Contributor Add-In also supports SharePoint 2010 enterprise managed metadata and term stores. Contributor presents managed metadata columns in views, enabling filtering and sorting. In addition, online terms and keyword metadata can be set and updated using a new term selector in the metadata editor. Term stores are accessed and retrieved directly from the server as required.

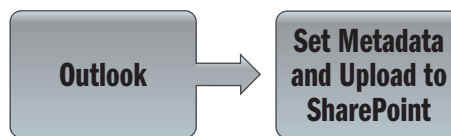


Figure 5 – Email Upload to SharePoint Using the Colligo Contributor Add-In

Contributor supports dragging and dropping multiple items at once, or moving entire Outlook folders (including all content and sub-folders) to SharePoint, and provides the capability to set content type and metadata for all items simultaneously.

An important new feature of the Contributor Add-In is the Send & File button which allows users to automatically save an email to SharePoint while sending it from Outlook. When using the Send & File button, users simply double-click a SharePoint folder and a copy of the email is then uploaded to SharePoint. The customizable Filing Advisor even suggests filing locations based on recently used folders, recent email threads, or enables users to choose any Colligo for SharePoint folder. Users find this feature extremely convenient, so they save more relevant emails and attachments to SharePoint.

Contributor Add-In enables users to instantly upload email attachments to SharePoint and replace them with links, when sending an email. Customizable email send rules prompt users to upload attachments before sending. Users can also easily insert a URL for a file stored in SharePoint into any email. This feature allows enterprises to reduce email storage requirements, overcome OST/PST limitations, and convert users to SharePoint based collaboration.

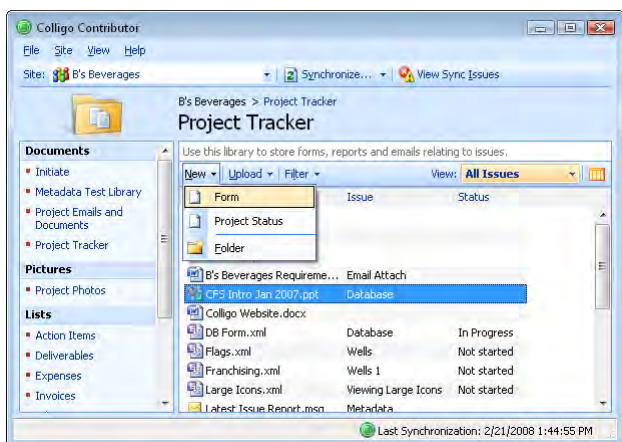


Figure 8 – Colligo Contributor Rich Client Interface Showing Email Document Library

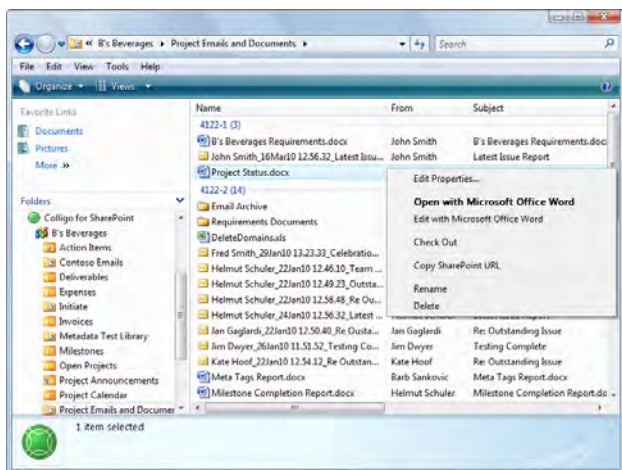


Figure 9 – Colligo Contributor File Manager interface Showing Document Library

A standard SharePoint document library that has been setup with a metadata (columns) that represent email message fields (i.e. To, From, Subject, etc.) is all that's required on the SharePoint side (see figure 6). An optional .xml file on the client can be used to configure the mapping of email properties to metadata fields. Email libraries with these characteristics can be easily setup by site administrators, designers, or end users through the use of content types that are available in SharePoint 2007/2010. Content types can also provide a way to setup document retention policies, which can be used to determine when emails are to be deleted or routed for archival.

The Colligo Contributor Add-In can provide end users access to SharePoint content and views whether they are on or off the network because it has the option to cache SharePoint offline. Local caching improves user productivity with instant access to content when working offline (e.g. when travelling) or over slow connections. Of course, for users who only work online, or for large email libraries, caching is neither required nor practical so the Add-In provides the option to cache on a library-by-library basis. Note that drag-and-drop and automatic metadata extraction for this library work in the same way as in the cached version. For office workers who will never require offline caching, an online only version called Contributor Uploader for Outlook is available.

Other Members of the Colligo Contributor Product Family

In addition to the Contributor Add-In for Outlook, the Colligo product family offers standalone client user interfaces that help to increase user adoption of SharePoint for content management. Contributor Client is a rich desktop application that provides a consistent SharePoint experience online and offline and is targeted at mobile and remote professionals. Contributor File Manager is a Windows Explorer extension for seamlessly linking folders on a user's file system with SharePoint document libraries. Colligo Contributor Pro includes the client interface, the Windows Explorer extension, and the Outlook Add-In. For custom applications, there is a software development kit (Contributor SDK) that enables third parties to develop custom desktop applications for SharePoint.

Emails that are dropped into an email document library in the Contributor Client or File Manager interface are automatically stored in the library along with the message properties and other metadata. Likewise, emails others have dropped into the library will be available when Contributor syncs in the background.

Advantages of Colligo Contributor for Email Management

The capability to access SharePoint document libraries from within the Microsoft Outlook interface provides powerful benefits to end users and SharePoint administrators. Users are already familiar with the drag-and-drop interface to move or copy emails within Outlook folders. Contributor Add-In provides the same experience for adding content to SharePoint folders. Outlook rules can be used to automate the process. Since the SharePoint folders are in the user Exchange profile, they are accessible through all other Exchange interfaces such as Outlook Web Access, Windows Mobile, and Blackberry Enterprise Server. Items can be added to SharePoint folders when users are offline, and the items will be uploaded to SharePoint when they return online. This gives users a lot of flexibility in when and where they choose to manage email archival. Cached mode is also available, similar to Exchange cached mode, to provide faster access to SharePoint libraries and also to enable them to be accessed offline.

Contributor's automatic extraction of email metadata gives users full access to this information for sorting messages later once they are in SharePoint. This makes it much easier to find emails and attachments by providing a user experience similar to searching messages in an inbox or an Exchange Managed Folder. The metadata extraction system in Contributor is very flexible, enabling site designers to incorporate it into content types, site columns, and regular library columns. It can also be localized or configured for mapping email metadata to multiple columns.

The most significant benefit of Contributor is its easy-to-use support for configuring content types and metadata at the time users add items to SharePoint folders in Outlook. This has a number of benefits:

- 1) Improved Productivity** – Users only touch the document once to set metadata (rather than having to move it into a folder in Outlook, then set the content type / metadata through the browser later).
- 2) Improved Quality of Metadata** – Users will not forget the correct classification when they try to “catch up” with a backlog of unclassified documents later.
- 3) More Content Managed in SharePoint** - Users will be more consistent in moving emails to SharePoint, with a resulting increase in the number of emails/attachments managed in SharePoint.
- 4) Skeptics Become Fans** – Users will more readily accept and support enterprise knowledge management best practices – the single biggest challenge faced by most document management implementations.

The following table compares Colligo Contributor Add-In solution and the out-of-the-box solutions described earlier.

Comparison of different methods for moving emails from Outlook to SharePoint	Drag-and-Drop to SharePoint Explorer View	Connect to Outlook (Discussions)	Send Emails to Libraries and Lists	Exchange 2007 Managed Folders	Colligo Contributor Add-In
Supports .msg file type	✓	✓		✓	✓
User provisioned library setup	✓	✓	✓		✓
Drag & Drop within Outlook		✓		✓	✓
Send & File within Outlook					✓
Copy Outlook folders to SharePoint					✓
Automatic metadata extraction				✓	✓
Support for custom properties					✓
Support for content types				✓	✓
Offline access to SharePoint content		✓			✓

Additional Note

If your organization plans to roll out SharePoint portals only, then Colligo Contributor Viewer would be an excellent solution for your offline users. However, if your organization is unsure of its future SharePoint requirements or is planning to roll out a number of different types of sites, Colligo Contributor uniquely provides the flexibility to grow as your deployment evolves and changes over the next few years.

For example, a portion of the SharePoint user community may only need the viewer, while others will need the full capabilities of Contributor. Some may need to sync frequently with the server while others may not. Different languages may need to be supported with custom mapping of email fields into metadata columns and different default content might be required. All of these configurations can be easily supported with Colligo Contributor.

To Learn More

For more information or to obtain a trial, go to www.colligo.com. For pricing information or to request a quote, please contact sales@colligo.com or call +1 (866) 685-7962.

