Choosing the Right Offline SharePoint Solution

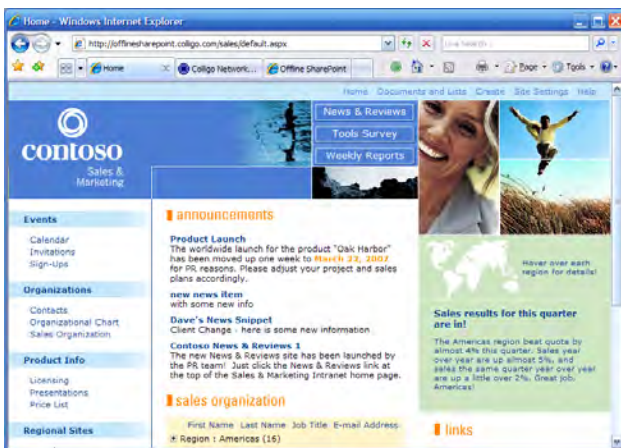## Introduction - The Offline SharePoint® Problem

For many corporations, SharePoint is becoming the centerpiece of collaboration for their business processes. However, since it can only be accessed through a browser and requires a constant connection to the server, it can only be used by people when they are "online". This means that users working on a plane or at a client site cannot utilize the business process management capabilities of SharePoint until they are able to connect. It also means that the user experience is limited by the browser paradigm which significantly restricts the performance and usability of the application. To understand this restriction better, imagine only being able to access email through a browser on an Internet connection. This is probably fine for personal use but would not be accepted by enterprises for serious business use.

Purpose of this document

This white paper is intended for SharePoint site administrators and IT personnel who are evaluating offline solutions for SPS 2003 or MOSS 2007 (WSS V 2.0 / 3.0). It examines the typical requirements for offline access in a number of scenarios and SharePoint site configurations then summarizes with a check list of questions that should be answered when evaluating competitive solutions.

Example Offline Scenarios

Offline solutions for SharePoint are being deployed by corporations in many industry sectors to improve the productivity of their mobile workforces. For example, Colligo ContributorTM for SharePoint® has been successfully deployed by multi-national pharmaceutical companies to give their sales professionals access to forms and sales information when they are out of the office visiting clinics and hospitals. Consultants at professional services firms are using Colligo Contributor to manage engagements when they are traveling or working at client sites. Energy companies, particularly in the oil & gas sector, are using Colligo to keep project teams, supervisors and managers working in the field updated with the latest safety bulletins and other information contained in SharePoint. Other examples of industries adopting Colligo's solutions include aerospace, agribusiness, electronics, telecommunications and automotive.
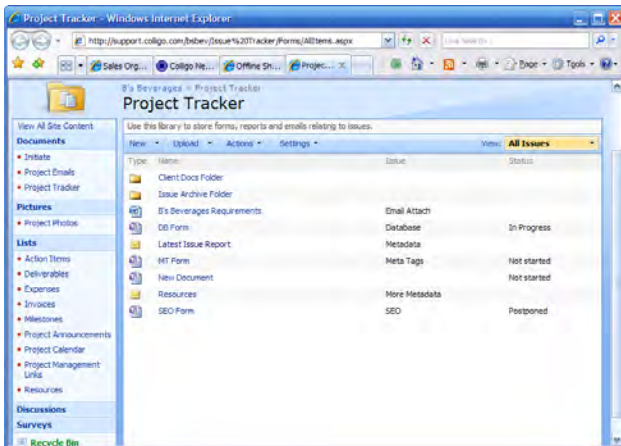

SharePoint Portal Example

Types of SharePoint Sites

Microsoft SharePoint Products & Technologies can be used to create many types of sites that benefit users working online. A growing number of users in an organization will also need offline access to these sites. Often corporations start off with one or two types of sites predominantly, but because of the flexibility of SharePoint, the scenarios that IT needs to support can expand very rapidly. So it's important to consider several use cases when evaluating an offline solution for SharePoint that will grow with your organization as the footprint of SharePoint grows.

Let's look at two applications that illustrate two very different sets of requirements for offline uses of SharePoint. For the purposes of this analysis, we will define these as follows:

a) **Portal sites** – A portal site is one that contains content authored by few and consumed by many. For example, a sales portal site might

SharePoint Collaboration Workspace Example

contain sales collateral authored by a few people at head office, but read by thousands of sales people across the company. An example of a portal is shown in the figure to the upper left.

b) **Collaboration workspaces** – These are sites set up to facilitate collaboration among a relatively small group of people (e.g. a project team). A sales team may create a collaboration workspace for working on proposals, etc. A key feature of these workspaces is that virtually all of the members (usually 5-50 people in a project) are adding and editing content on the site (i.e. have contributor site permissions). An example of a collaboration workspace is shown in the figure to the lower left.

Taking SharePoint Portals Offline

Very often users of portals just need read-only access. For example, a sales person who is traveling away from the office and therefore working offline may wish to browse a price-list on the sales portal in order to draft an email response to a customer while on the plane. All they require in this scenario is the ability to maintain a current copy of the sales portal on their laptop that they can browse while offline.

What SharePoint content is needed offline? Of course this depends a lot on how the portal has been designed. In many cases the core information is contained in document libraries (e.g. brochures, presentations, etc.) and custom lists (e.g. price lists, lead assignments, etc.). Other information such as a dashboard delivered by custom web parts may be useful offline but is not necessarily required.

When choosing an offline implementation for a portal site, the following elements should be considered before making a decision:

a) **1-way synchronization** – The majority of users have read-only permissions on the portal site, so they need a solution that simply enables them to download documents and lists to their laptops;

b) **Content selection** – Mobile users that access portals are often unskilled in configuring synchronization. It is convenient to have the user's offline solution managed centrally by IT to receive core content automatically. Some users may need the flexibility to choose additional content to meet their individual needs;

c) **Metadata/views** – Metadata and views enable content to be organized so it is aggregated, organized and accessible. The need for metadata and views will depend on the design of the portal site and the organization of content in it;

d) **Lists and other content** – SharePoint is often deployed as a replacement for a file share, so documents tend to be the initial content focus. However, organizations are increasingly seeing the benefits of using lists as a form of easy-to-build online database. The significant list enhancements in SharePoint 2007 (e.g. folders, content types, versions and multi-value lookups) are likely to greatly increase their use.
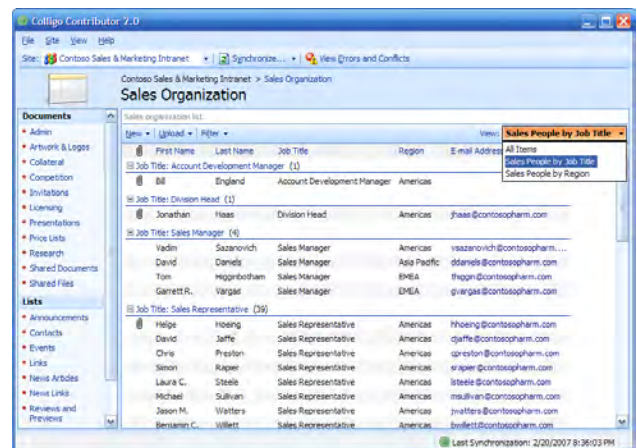
Colligo Contributor enables site administrators to provide offline access to portal content when users are working outside the office and experiencing variable connectivity. Contributor is offered in a cost effective view-only option, so it is well suited to the needs of many portal site users. Colligo Contributor (Viewer) is a .NET application that will work with any Windows SharePoint Services or SharePoint Portal Server site. This uncomplicated and easy to use application is simple enough that it tends to require no training for most users. The following describes how Colligo Contributor addresses the requirements of an offline solution for portals:

a) **1-way synchronization** – Contributor (Viewer) synchronizes content down to a user's laptop and is restricted to read access only. Users cannot modify content or synchronize changes back to the portal;

b) **Content selection** – In addition to manual sync selection, a site configuration file on a user's laptop can be deployed on an image and/or modified periodically with a login script. This file enables IT to define a minimal set of sites, lists, libraries, and folders to be synchronized to a user's computer eliminating the need for them to select content manually;

c) **Metadata/views** – Office 2007 and some other sync tools provide access to documents, but no custom metadata. Colligo Contributor, on the other hand, syncs metadata and views so users will find the content of interest quickly when working offline;

d) **Lists and other content** – Colligo Contributor enables users to download and view content in standard and custom lists, including advanced SharePoint 2007 features such as multi-value lookups. Other approaches use an HTML crawler which enables non-standard web parts to be rendered offline.

An example of a custom list from a sales portal that has been downloaded to Colligo Contributor is shown in the figure to the left. Note that all of the metadata and views are available offline which enables the sales person to easily sort the list items to find what they are looking for.

While many portal users will be happy with read-only capabilities, there may be some scenarios where users need to contribute content back to the SharePoint site while they are offline. For example, if a sales portal requires new leads to be entered using an InfoPath form, it may be desirable to provide both read and write capability offline so sales people can fill out these forms while traveling, thus improving their overall productivity. Scenarios that require portal users to contribute content offline can be met using the full version of Colligo Contributor which will be discussed further in the section below on Collaboration Workspaces.

Colligo Contributor 2.0 Interface to a SharePoint 2007 Portal

Taking Collaboration Workspaces Offline

Unlike portals, collaboration workspaces typically involve users interacting with the site as they develop and edit content throughout a project. As mentioned earlier, collaboration workspaces often become a requirement once users become aware of the power of SharePoint. In fact, more organizations are turning to collaboration workspaces because of their ability to structure and archive project-related communications and data. Requirements for taking collaboration workspaces offline often include:
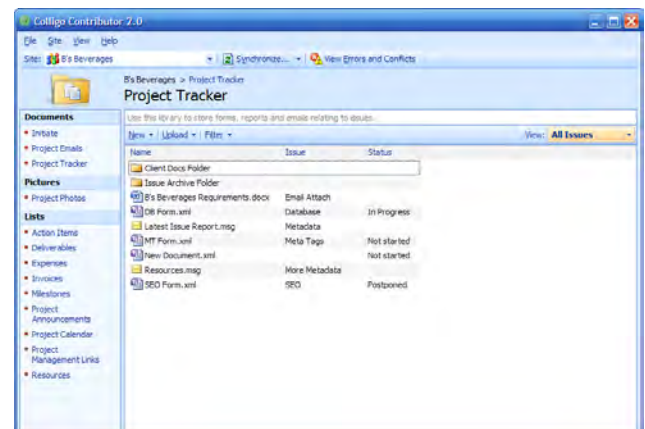
a) **2-way sync** – Users will often alter a number of documents offline and find that having to remember to upload document changes manually after they return online can be very error prone. 2-way sync is therefore preferred, but only if offline metadata is supported (see later discussion on metadata);

b) **Templates** – Organizations rely on templates stored on the SharePoint server to store blank InfoPath forms and other documents. With the introduction of multiple content type support in SharePoint 2007, many organizations are planning to standardize document creation based on content type templates;

c) **Content selection** – Collaboration workspaces are being created all the time by project managers (maybe a 100+ per day depending on size of organization), and the population of offline users may be constantly changing. Here it is critical that the selection of content for offline sync be 100% user driven and maintained;

d) **Metadata/views** – While it may be optional whether metadata is needed in a read-only portal site, the lack of metadata can be a real problem in a collaboration workspace; particularly if workflows are involved (e.g. metadata must change for workflow to proceed). If the user can't make the metadata changes while offline, they must remember to do this online, which is a very error prone process;

e) **Lists** – Like portals, lists are increasingly being used in collaboration workspaces. One of the factors driving the increased use of lists is

lookups. Users are realizing that lookups provide a much more flexible and powerful way of linking information, and are much easier to use than choice columns;
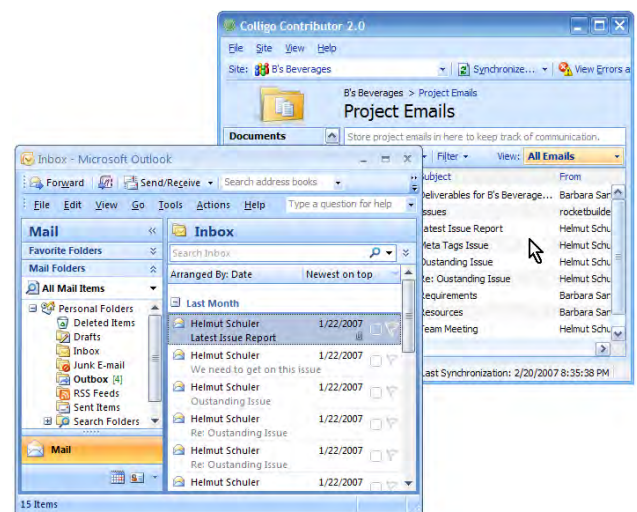
f) **Email** – More and more, organizations are turning to SharePoint as a solution for sharing and archival of project emails. Some users will require this capability offline. The interface needs to be dead easy to use while providing the flexibility to enter custom metadata (e.g. project number) at the time the email is copied to SharePoint;

g) **Conflict resolution** – Since users are making changes while offline there will invariably be synchronization conflicts (e.g. two users changing the same document then syncing). Efficient and user friendly handling of these is critical, otherwise users may feel compelled to check out every conceivable document they might edit while offline. This practice can unnecessarily tie up content in the workspace.

Colligo Contributor provides a comprehensive solution for offline access to collaboration workspaces. Like Contributor (Viewer), the full Contributor is a .NET application that works with any Windows SharePoint Services or SharePoint Portal Server site with no server components required. Contributor addresses the offline needs of collaboration workspaces as follows:

a) **2-way sync** – Contributor enables users to download, modify and upload changes to SharePoint sites. With convenient background synchronization capabilities, changes are automatically synchronized to the server on configurable intervals when the user returns online;

b) **Templates** – Unlike other client-only offline SharePoint solutions, Colligo Contributor downloads document templates and multiple content types to the user's laptop so they can create documents offline. This means they can fill out blank InfoPath forms when they are disconnected from the server;

c) **Content selection** – With Colligo Contributor, site selection is managed entirely on the client – nothing special needs to be done to the SharePoint site itself. Other products require IT to provision each new site so that it can be subscribed to by an end-user for offline access. This can become an administration nightmare – precisely the type of IT hassle SharePoint was intended to avoid;

d) **Metadata/views** – Contributor supports full 2-way synchronization and real time updating of metadata and views. Products that don't support 2-way sync force users to upload changed documents manually through a browser, which is at best, error prone. Several other offline solutions support 2-way sync, but don't support metadata or views. This means users must find the document on the server and manually apply metadata. SharePoint 2007 automatically checks out documents if they are synced without required metadata, which may unnecessarily tie up content if a user forgets to manually apply metadata. Another feature of Colligo contributor is the ability to see changes to metadata made offline. Offline solutions that are based on capturing HTML provide the version of the metadata at the time of the last sync – changes made while the user has been offline are not reflected in the main view of the library or list until

Colligo Contributor 2.0 Interface to a SharePoint 2007 Collaboration Workspace

Drag & Drop Microsoft Outlook Emails into Contributor Document Libraries

they sync again. This can be problematic if the user is offline for an extended period and wants to quickly see which documents they have responded to.

e) **Lists** – Colligo Contributor supports taking standard and custom lists offline, including the editing of lookup columns based on those lists. Most other offline products do not allow users to view and edit standard and custom lists;

f) **Email** – Contributor allows users to drag and drop MS Outlook emails directly into document libraries for sharing and archival, whether they are online or offline. Message fields are converted into SharePoint metadata and users can add custom metadata at that time as well;

g) **Conflict resolution** – Most offline SharePoint products have some type of conflict notification mechanism, but still rely on the user to identify the conflicting text. Contributor has an easy to use resolution engine that interfaces directly with the MS Word compare and merge function.

General Considerations

a) **User interface** – Users are familiar with a rich client implementation (e.g. drag and drop interface, right click etc.) when they are working offline. Products that force the user to work through a browser do not allow for real time updating of SharePoint lists, libraries and views. Colligo Contributor has a streamlined client interface that has received an "Excellent" ease-of-use rating by reviewers such as eWeek magazine.

b) **Relative links between files** – The architecture chosen for the offline store can affect the flexibility of the solution. For example, many offline SharePoint implementations store both the SharePoint site structure and files in a database on the client. This means that relative links between files, such as often used in Excel spreadsheets, will not operate offline. Colligo Contributor's encrypted datastore preserves the folder hierarchy from the SharePoint site, ensuring that relative links between documents are preserved.

c) **Ease of deployment & configuration** – Rolling out an offline solution should be easy, however it must be flexible enough to enable IT to centrally configure users laptops. Colligo Contributor can be silently installed or uninstalled using standard deployment tools (e.g. SMS) and can be configured by setting custom properties on the MSI installation file. After installation, Contributor can be configured through the registry area and/or client configuration files updated with a login script. Configuration options include sync cycle, database encryption, database location, download locations, and email metadata mapping.

d) **Server configuration** – Many organizations have SharePoint servers in different geographic locations and are constantly updating and adding new sites and servers as they roll out SharePoint. A server-based offline solution can be restrictive because it forces IT to add the new sites to the crawler and decide which sites will be part of which publications. A solution such as Colligo Contributor may be preferred because it is entirely client-based, which means users decide which sites to download themselves without having to involve IT in the process. This includes legacy sites on older versions of SharePoint.

e) **Training requirements** – The chosen offline solution needs to be easy to learn and use. Solutions that diverge too far from the SharePoint user interface model will force users to work differently offline than they do online and therefore require additional training. Colligo Contributor models the behavior of SharePoint list and library web parts, providing users with a familiar interface for retrieving and saving content when working offline.

Checklist

Colligo Contributor has been designed to satisfy the offline requirements of a variety of users working on different types of SharePoint sites. The following is a summary of these requirements for portals and collaboration workspaces and maps Colligo Contributor features against them. We invite you to use this table when evaluating other alternatives.

REQUIREMENT	Portals	Workspaces	Contributor
1-Way synchronization	*		✓
2-Way synchronization		*	✓
User configured site/content selection	*	*	✓
IT configured site/content selection	*	*	✓
Sync metadata and views	*	*	✓
View custom & standard lists and libraries	*	*	✓
Update metadata & views offline		*	✓
Edit content in libraries and lists offline		*	✓
Offline document templates / multiple content types		*	✓
Drag and drop emails into document Libraries		*	✓
Sync conflict resolution + Word compare/merge		*	✓
Intuitive user interface	*	*	✓
Supports relative links between files	*	*	✓
Easy to deploy & configure	*	*	✓
Only requires deployment of clients	*	*	✓
Minimal training	*	*	✓

* requirement

Selecting the Right Solution

If your organization plans to roll out SharePoint portals only, then Colligo Contributor (Viewer) would be an excellent solution for your offline users. If your application doesn't require metadata, views or lists, there are many third party solutions to choose from as well. 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.

If you would like to learn more about Colligo Contributor, please send an email to sales@colligo.com or call +1 (866) 685-7962. We would be happy to assist you as you evaluate different alternatives for taking SharePoint offline.