



Integrating SharePoint with Lotus Notes: Achieve Your Collaboration Objectives While Managing Expenses

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Executive Summary

To rise to the current economic challenge, businesses are investing strategically in collaboration software to improve teams' innovation and reduce operating expenses. However, many Lotus Notes® and Lotus Sametime® customers struggle to implement their collaboration strategy because they rely on Microsoft® SharePoint® for team collaboration and document management. Accessing and updating SharePoint document libraries within Lotus Notes is a tedious process that impedes team collaboration and slows business users' productivity.

Solving these interoperability challenges by migrating away from Lotus Notes and Domino® to an all-Microsoft infrastructure is a costly proposition—one that is often lacking a financial justification and involves significant business risks. Instead, companies are pulling in the reins on IT investments and finding ways to get more out of their existing infrastructures.

Mainsoft Corporation offers a strategic coexistence approach to enable the realization of such value. The company's integration software and services deliver an intuitive experience on SharePoint, for Lotus Notes users, by combining the collaboration and document sharing capabilities of SharePoint with the email and instant messaging capabilities of Lotus Notes and Sametime®. Organizations can therefore deliver access to all collaboration and messaging resources through a single interface, without the high costs or risks of a migration.

The SharePoint Phenomenon

Microsoft SharePoint is the central element of Microsoft's collaboration and information management strategy, capable of supporting many collaboration and information management processes, including team collaboration, document management, records management, enterprise portals, and business workflows.

SharePoint is also making its mark on enterprise IT end users. SharePoint is the natural back-end for Microsoft Office®, the desktop productivity suite used by the vast majority of information workers. For those with Office 2007 on the desktop, SharePoint delivers tight integration with Microsoft Word®, Excel®, PowerPoint®, and Outlook®, among others. SharePoint provides an integrated approach for enterprise end users to work on Office files and use SharePoint to support document sharing and collaboration.

Microsoft Windows® SharePoint Services delivers the collaboration and document sharing capabilities of SharePoint. Enterprise workgroups can get Windows SharePoint Services easily and for no charge, as a "free component" of Windows Server 2003 and 2008. Businesses that prefer a hosted solution can subscribe to Microsoft SharePoint Online for document sharing and collaboration sites, without having to purchase an on-premise server.

Once it is available within workgroups, SharePoint becomes the new way of working and spreads among early technology adopters. At this stage, it's common to see central IT organizations upgrade to Office SharePoint Server 2007 to consolidate the SharePoint server infrastructure, enhance data protection, and promote a formal, corporate-sanctioned environment to all IT users.

The SharePoint phenomenon is not limited to organizations that are “Microsoft shops.” Given the wide usage of Office on the desktop, SharePoint is emerging in almost all organizations, including those that use Lotus Notes and Sametime.

In summary, SharePoint is here to stay, and more likely than not, you have end users demanding formal support for its capabilities, whether you run a “Microsoft shop” or not.

Lotus Notes Users' Pains

IBM and Microsoft have competing agendas for enterprise IT decisions—each want its products in the datacenter. However, this competition negatively impacts enterprise IT users who use a mix of products from both vendors, either by design or happenstance. The seamless integration between messaging and collaboration platforms achieved by aligning with a single vendor and a single technology stack has been missing in a multi-vendor environment, and enterprise IT end users bear the brunt of the consequential pain.

Four Major Pain Points

Users working with both Lotus Notes and SharePoint experience four major pain points:

- Documents in SharePoint cannot be easily accessed from Lotus Notes.
- Lotus Notes emails and attachments cannot be easily published to SharePoint collaborative spaces, and they remain locked in users’ Inboxes.
- Project-specific calendars, contacts, and tasks cannot be integrated into Lotus Notes productivity tools.
- Documents in SharePoint cannot be accessed offline.

Document Sharing

Document sharing between SharePoint and Lotus Notes is problematic. Either users will be reluctant to use SharePoint for document sharing and therefore require an ever larger mail box to handle all of the document attachments, or they will have to manually bridge the divide between the two products, first working in SharePoint and then switching to Lotus Notes. When a new document is received by email, it needs to be saved to the desktop and then uploaded by the user into a SharePoint document library. When a user wants to attach a document to a new Notes email, the document has to be saved to the desktop and then attached into Lotus Notes. The steps involved are cumbersome, and they create duplicate documents and version control issues, which lead to the very information chaos that embracing SharePoint was intended to eliminate.

The same pain applies to sharing documents through Sametime. Today, the user has to switch contexts, away from Sametime, to find the relevant document, rather than being able to identify document authors directly using Sametime presence awareness, and sharing documents within a real-time context. These additional manual steps curtail the effective use of SharePoint for document sharing.

Email Documentation and Compliance

Email messages that outline the rationale behind decisions, or that contain important contextual information for a project, are locked in Lotus Notes Inboxes and cannot be easily published on a central repository. Lotus Notes users resort to CC’ing and forwarding emails to team members because emails can’t be shared with others through SharePoint. This

inability to save emails from Lotus Notes into SharePoint is counterproductive within the life of a project, and it increases business risk significantly over the long term, as key context to business decisions is missing from documents.

Calendar, Contacts, and Task Management

Project-specific calendars, contacts, and tasks from SharePoint cannot be integrated into Lotus Notes. When a team uses a SharePoint site with a team calendar for planning upcoming milestones and meetings, a Lotus Notes user has no visibility into those events from their own calendar. Instead, they have multiple calendars to review and continually reconcile—a process prone to errors such as double-booking appointments and missed meetings. The same applies to both contacts and tasks created in a SharePoint site—they cannot be integrated into the contact and task management capabilities of Lotus Notes. SharePoint contacts are missing from the Lotus Notes address book for email and the Sametime window for instant messaging, and users have to take on the responsibility of remembering to check their task lists in different places.

Offline Access

Lotus Notes users have to deal with two different models for accessing their information when offline. With Lotus Notes, they have full access to their email, calendars, and tasks, regardless of location, through the replication capabilities of Lotus Notes. With SharePoint, location becomes critical. When a user can connect to the network, they can get their documents and other files, but when they are not connected, they are out-of-the-loop.

Is Outlook 2007 the Answer?

Lotus Notes users are continually reminded by Microsoft that if only they would embrace Microsoft Outlook 2007, all would be well. Documents, calendars, and tasks from SharePoint would be integrated seamlessly into their work practices, whether they were online or offline. Document sharing would come naturally, because of the tight integration that Microsoft has enabled between the two product lines.

Enterprise Dilemmas and Pains

The pains of dealing with Lotus Notes and SharePoint are not confined to end users alone. Corporate IT has its own set of challenges when dealing with a multi-vendor IT infrastructure:

- Whether to migrate to a single vendor and technology stack;
- Whether to maintain the status quo, and do nothing; or
- Where and how to integrate the two platforms.

The Single Vendor Strategy

One option available to Corporate IT departments overseeing an increasing proliferation of SharePoint and annoyed users is to standardize on the Microsoft platform. In this scenario, Lotus Notes is removed in favor of Outlook 2007, and collaborative applications from Lotus Notes and Domino are re-created using Microsoft technologies, such as SharePoint. This approach is not problem-free:

Huge Migration Cost. According to a Ferris Research report, a corporate email migration costs about \$300 per mailbox, assuming no application migration is involved¹. The primary costs are hardware, software, and labor—including research, evaluation, design, testing, implementation, and training. Some migrations can be extremely costly, up to \$700 per mailbox, if an organization needs new servers and operating systems software, in addition to new client software. According to IBM, migrating collaboration applications costs at least twice as much as migrating email, with all of the attendant re-specification, re-scoping, and re-development efforts involved².

Questionable Return-on-Investment. The product portfolios from Microsoft and IBM do pretty much the same things. A migration gets the organization past the Microsoft-IBM battle, but only at a significant incremental cost and frequently a negative business return. In addition, there is a huge opportunity cost to Corporate IT as its staff is tied up in migration work for years rather than working on projects that deliver tangible business benefits by aligning IT with business processes.

Increased Vendor Lock-In. Shifting to a single vendor for messaging and collaboration ties the organization to the strategic dictates of the selected vendor. One of the biggest complaints about Microsoft is its habit of forcing organizations into forklift upgrades of many products, and the poor backwards compatibility these upgrades deliver. For instance, organizations that want Microsoft Exchange Server 2007 have no choice but to deploy it on 64-bit hardware.

Major User Population Issues. Users—both as individuals and as members of intact social groups—are forced to change products as well as revamp the way that they work with others. Current and accepted ways of working with others in Lotus Notes are eliminated, and the organization incurs large costs, both in re-training users to work together in SharePoint and in lost productivity as people and groups struggle through the chaos of making sense of the new approach.

The Do-Nothing Strategy

The default option is the “do-nothing” strategy, whereby IT attempts to indefinitely maintain two partially-compatible infrastructures and leave end users to manually bridge the divide between IT platforms. Enterprises run the risk of lower productivity and loss of a competitive edge. Specifically, companies face:

Growing User Dissatisfaction. The lack of system functionality for integrating personal and team spaces makes it difficult for users to collaborate effectively on teams. This leads to a growing pressure from dissatisfied users, line of business managers, and impatient IT department managers to rectify the situation. It also calls into question whether IT professionals are sufficiently in touch with the requirements of users.

¹ Ferris Research. “Email Migration Costs,” (Report #400), December 2003. Pgs 7, 9-10.

² IBM “Notes/Domino Market Update and Fundamentals of Collaboration Business Value,” slide 22. Presented at Lotusphere 2009.

More Complex IT Environment. The current products from both vendors must be maintained over time, including the deployment of upgrades and the re-development of custom integration points between the two. Users have to remember multiple login details for different systems, and IT has to manage security and permissions across disparate systems.

Incoherent Content Management Strategy. Even though team collaboration sites exist for projects, email is still widely used. As a result, important business content is spread across multiple systems, and it is impossible to get a total business view of the content and activities related to people, projects, and processes. Some information is accessible through Lotus Notes, and some through SharePoint, but the only way of integrating the two is to find someone who knows where the right content is located.

Ongoing Training Costs. The lack of system functionality for integrating products has to be rectified by users following extra steps. This calls for ongoing training to ensure that everyone is crossing the chasm manually and correctly. The training is focused on low level system functionality rather than higher level ideas about getting the most out of the current infrastructure.

Coexistence Strategy: Integrating Lotus Notes and SharePoint

Mainsoft offers a compelling alternative: integration between Lotus products and SharePoint using the Eclipse Rich Client Platform plug-in architecture and SharePoint Web Services interface. Instead of dealing with the steep costs and risks inherent in a migration strategy, or the inefficiencies and frustrations caused by doing nothing about the problem, companies can choose a third alternative, which is a coexistence strategy. End users can access SharePoint using their familiar Lotus products, without having to switch contexts.

Business Benefits

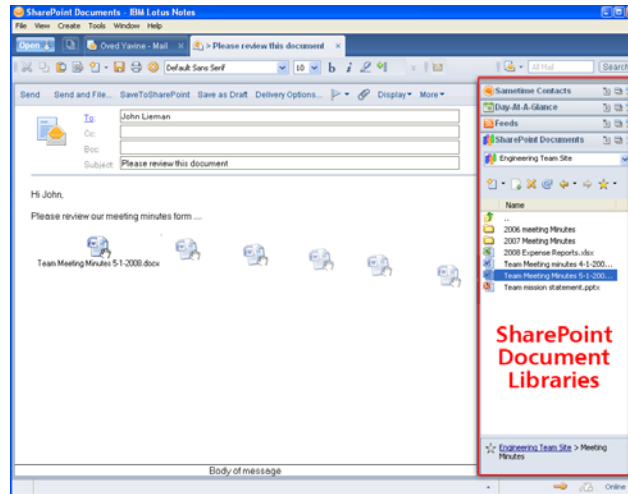
Mainsoft SharePoint Integrator for Lotus Notes promotes team collaboration and Lotus Notes users' adoption of SharePoint for managing and sharing emails and attachments. The client side software provides an intuitive SharePoint experience on the Lotus Notes desktop. Lotus Notes users can easily drag documents and emails from a Lotus Notes sidebar to SharePoint and from SharePoint to Lotus applications, including emails, calendars, task lists, team rooms, and the Sametime chat window. Business users can also manage their schedules more easily with the ability to manage SharePoint team calendars within the Lotus Notes 8.5 calendar application. Custom integrations between SharePoint and Lotus Notes, including workflow applications, are also supported.

Mainsoft enables businesses to achieve these objectives while aggressively managing expenses. In fact, SharePoint-Lotus software coexistence costs 1/10th the cost of a typical email migration. Customers can also save email storage costs by promoting the use of document links in outgoing email messages rather than saving duplicate documents on one or more Domino servers. Finally, Mainsoft connects to Microsoft SharePoint Online and other hosted options, supporting customers that choose to reduce on-premise SharePoint server and administration costs.

Product Capabilities

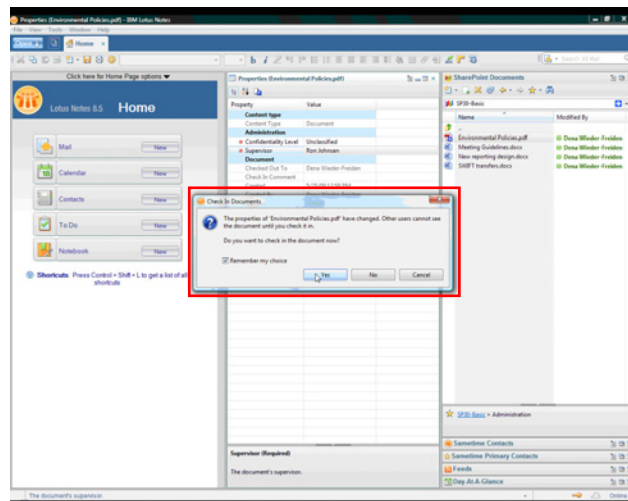
The key capabilities of Mainsoft's integration software and services are:

Collaborative Document Authoring and Sharing. From a sidebar, Lotus Notes users can quickly locate content stored on one or more SharePoint sites using search, favorites, history, and back/forward buttons. They can publish SharePoint documents using either a drag-and-drop operation or a save-to-SharePoint button, as well as basic library services such as check in and version history. Users can also drag SharePoint documents and document links to Lotus Notes emails, calendars, Lotus Connections activities, and team rooms.

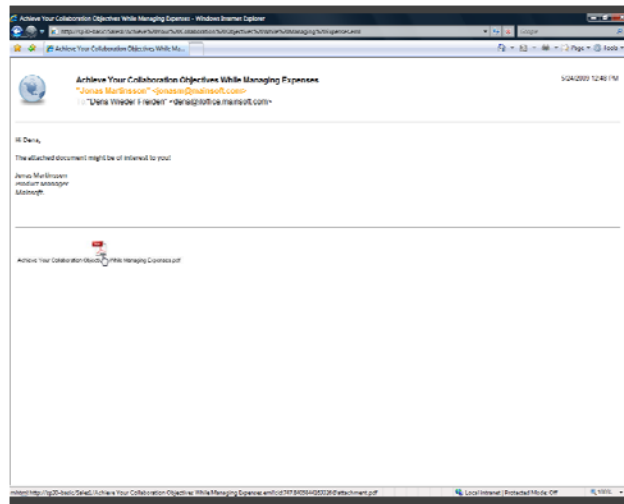


Drag-and-drop a document from SharePoint to Notes.

SharePoint Taxonomy Enforcement. To help users adopt the SharePoint taxonomy and comply with governance policies, Lotus Notes users are prompted to check in documents they have checked out, as well as fill in required properties for documents they upload on SharePoint. In addition, when publishing encrypted emails to SharePoint, a warning message will prompt the user to decide if it should be published or not.



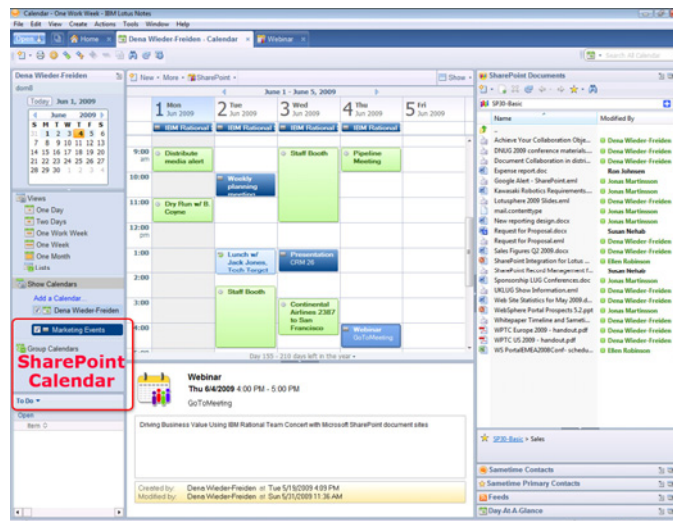
Prompt the user to check in a document to share with other users.



View Lotus Notes emails from a Web browser.

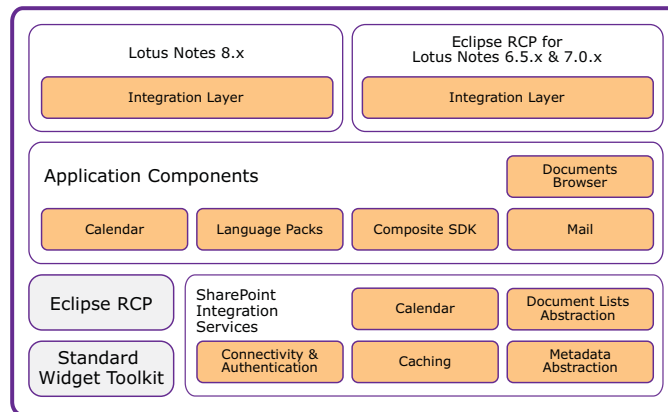
Reduce Email Storage Costs. SharePoint Integrator promotes the use of document links in outgoing emails. When a user sends an email with one or more attachments, the SharePoint Integrator prompts the user to save attachments on SharePoint and replace them with document links in the outgoing message. This feature complements Domino attachment and object storage (DAOS) on Domino Server 8.5. It also reduces email storage requirements on Domino servers v. 8.0.x., 7.0.x, and 6.5.x.

Managing SharePoint Appointments from the Lotus Notes 8.5 Calendar Application. Users can view and edit SharePoint team appointments inside Lotus Notes. Calendar appointments are color-coded to easily distinguish between personal appointments and team events. Users can also edit event details, delete an existing team event, or create new ones. These changes are directly made on SharePoint, making it easy to keep a team calendar up-to-date. Users can also use Lotus Notes meetings to invite people to attend a team event. Finally, they can view SharePoint team events when offline.



Manage SharePoint team appointments from an integrated Lotus Notes calendar view.

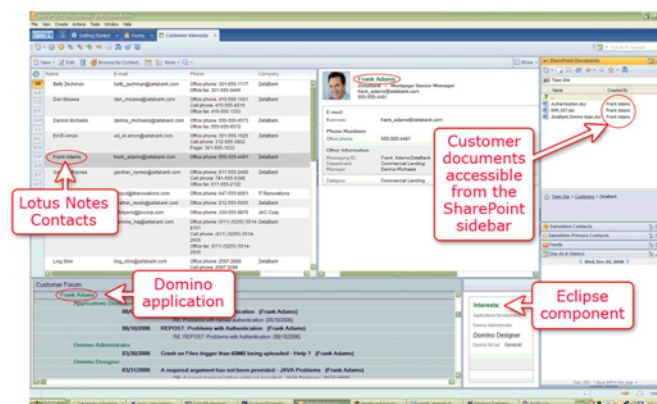
Business Mashups that Integrate SharePoint Content. Mainssoft SharePoint Integrator is built on the Mainssoft's SharePoint Integration Platform. The platform includes a SharePoint Integration Services layer, which abstracts all Web services communications with the SharePoint Server.



Architecture of Mainssoft's SharePoint Integration Platform.

SharePoint Integration Services can be used programmatically to customize Mainssoft SharePoint Integrator software and integrate Domino and Lotus Notes applications with SharePoint contents, such as documents, calendar events, tasks, and profiles. In the example below, the Lotus Notes Contacts application, a Domino-based customer forum, and SharePoint documents compose an enterprise mashup running on the Lotus Notes 8 desktop.

The SharePoint Integration Platform has been used to program the SharePoint sidebar to display all documents related to a customer contact. When a business user selects a customer name in the Lotus Notes contacts, the Domino application retrieves customer comments posted in a forum, and the SharePoint Integrator retrieves customer-related documents stored on SharePoint.



SharePoint documents related to a customer contact are displayed automatically when the user selects a customer name in their Lotus Notes contacts or a Domino-based customer forum.

Future versions will federate team tasks and contacts into Lotus Notes Personal Information Management (PIM) applications and deliver offline access to SharePoint documents.

Coexistence Strategy: Management and Support

Mainsoft SharePoint Integrator for Lotus Notes is delivered as a client-side plug-in to the Lotus Notes 8.x client, which is based on the Eclipse framework. It can be installed directly by end users using standard Lotus Notes 8 capabilities for installing applications. For organizations that want hands-off installation, the plug-in and user preferences can also be remotely provisioned by an IT administrator using the widget catalog. Once installed, the Integrator will periodically check for authorized updates to itself, minimizing ongoing administration and management efforts by end users and ensuring that the latest features are quickly rolled out within the enterprise.

For Lotus Notes 8.x (Basic Configuration), 7.x, and 6.5.x users, Mainsoft SharePoint Integrator is delivered as a standalone package that docks to the Lotus Notes client and can be installed silently to ease centralized IT provisioning.

The SharePoint Server infrastructure does not require any modifications and is not impacted by the deployment of the plug-in. IT administrators do not have to install additional software on SharePoint for the plug-in to work, thereby ensuring high fidelity datacenter environments are not compromised by additional software, and eliminating the long software review cycles for anything that is installed into the datacenter. For enterprises that adopt Microsoft SharePoint Online or other hosted solutions, Mainsoft supports asynchronous drag-and-drop operations to ensure that Lotus Notes remains responsive when users drag large documents to and from the cloud. Additional enhancements, such as caching of favorites and last visited folders, will be supported in future releases.

Another benefit of the client-side nature of the Mainsoft Integrator is that end users are able to set up and configure their own list of SharePoint sites and document libraries, without requiring assistance from the IT staff. This self-service approach provides greater flexibility in the use of the tool and a perfect alignment between connectivity to SharePoint sites and the needs of the user.

About Mainsoft

Mainsoft develops software and solutions that integrate Microsoft technologies, specifically SharePoint and .NET applications, into Java-based middleware such as IBM Lotus Notes, Lotus Sametime, WebSphere® Portal Server, WebSphere Application Server, Rational® Jazz™, and Apache Tomcat. Currently, more than 150 enterprises and ISVs use Mainsoft software and solutions to deliver integrated platforms. For more information, visit www.mainsoft.com.

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