Implementing TIBCO Nimbus with Microsoft SharePoint
Introduction

TIBCO Nimbus® integrates seamlessly with Microsoft SharePoint to provide high-value process management capabilities right from the SharePoint environment. This subject should be of interest to customers who have invested in SharePoint or are considering making such investments. This paper explains how the two products integrate with an overview of how they need to be configured to achieve the integration.

Understanding Microsoft SharePoint Components

Microsoft SharePoint provides a collaborative knowledge management environment. If you are unfamiliar with SharePoint, a good place to start is: http://www.microsoft.com/sharepoint/

Microsoft SharePoint includes several components, so using its shortened name “SharePoint” is potentially a recipe for confusion. There are two main components relevant to the Nimbus-Microsoft SharePoint integration:

• Microsoft SharePoint Foundation 2010 (formerly Microsoft Windows SharePoint Services)
• Microsoft Office SharePoint Server 2010 (MOSS and formerly Microsoft Office SharePoint Server 2007)
**SharePoint Foundation 2010**

SharePoint Foundation 2010 is the part of SharePoint that Nimbus uses. It provides an infrastructure to enable collaboration and a foundation for building web-based applications. This versatile technology, included in both Windows Server 2003 and 2008, is supported by Nimbus.

Here is additional information about this technology excerpted from Microsoft’s website:

> It is the essential solution for organizations that need a secure, manageable, web-based collaboration platform. SharePoint helps teams stay connected and productive by providing easy access to the people, documents, and information that they need to make well-informed decisions and get work done. Use SharePoint Foundation to coordinate schedules, organize documents, and participate in discussions through team workspaces, blogs, wikis, and document libraries on the platform that is the underlying infrastructure for SharePoint Server.

**SharePoint Server 2010**

Microsoft SharePoint Server 2010 is a server program that is licensed separately to Microsoft Office and Windows Server. While this SharePoint technology is not required to implement Nimbus content to users, it provides additional capabilities such as the integration of SharePoint’s enterprise search capability across the Nimbus repository content.

Here is additional information about this technology excerpted from Microsoft’s website:

> Microsoft SharePoint Server 2010 is the business collaboration platform for the enterprise. Use SharePoint Server 2010 to connect people with colleagues and information; manage and govern enterprise content; balance user experience with policy and process; and help users find the content, information, and people they need with enterprise search.

Please consult your Microsoft representative for additional details you require about SharePoint.
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SharePoint License Requirements

Microsoft Windows Server 2003 and 2008 include the Microsoft SharePoint technology that is needed to integrate Nimbus with SharePoint. Microsoft Windows SharePoint Services is included in Windows Server 2003, and SharePoint Foundation 2010 is included with Windows Server 2008. So if you currently deploy or decide to deploy SharePoint later, there is no further Microsoft license requirement, as you will be installing Nimbus onto a server that has one of these operating systems already.

Why Should We Be Interested in Microsoft SharePoint and Nimbus Working Together?

Since the deployment of SharePoint Server 2010 or MOSS is not required for deploying Nimbus, if you have not adopted these Microsoft technologies, we would recommend you proceed without it. When a business case emerges later to integrate Nimbus into SharePoint, you can quite easily do that later when and if SharePoint is deployed in your organization.

If you have already deployed SharePoint Server 2010 or MOSS, then the benefits of integrating Nimbus into SharePoint should be clear. A uniform look-and-feel, with consistent navigation across different applications will be more user-friendly, helping to drive adoption and lower training and support costs.

But perhaps even more important, you can join up multiple initiatives in a single portal. For example, users can move seamlessly between document libraries and other typical collaborative SharePoint applications into Nimbus content with greater ease. You can even mix content from different applications on the same portal page, combining different Web Parts displaying content from different sources, including Nimbus. With this componentized approach to portal page delivery, you may come up with new novel applications for blending process, performance metrics, and unstructured or structured data on the same page. And lastly, a unified approach to portal infrastructure is likely to be desirable for your IT department.
How Does Nimbus Work with Windows SharePoint Services?

While the entire Nimbus environment is installed just as normal, bear in mind the technical prerequisites mentioned below. Thereafter, you integrate the Nimbus web server into SharePoint, allowing users to access processes, documents, to-dos, and storyboards from within the SharePoint environment. Note that the integration should not take more than a few minutes. Brief details are available in the below section, “How to Implement Nimbus in SharePoint.” Full details are in the Administration Guide.

As the architecture image below shows, the Nimbus web server can be accessed either directly via a browser (which provides the Nimbus ‘native’ web front end), or via the SharePoint services layer (which provides the SharePoint style front-end).

As a result of this flexibility, you can run a mixed environment off the single Nimbus repository consisting of one database, one authoring environment, one web server, but two alternative end user browser interfaces that include the Nimbus native style interface and the SharePoint style interface. While that’s not desirable for long-term steady state use, it does provide a seamless and simple way for you to roll out the SharePoint instance to departments or initiatives one at a time. Users can continue with the native interface until they have been trained and told to access the SharePoint site.
What Does it Look Like?

For administrators, the SharePoint portal framework includes the tools necessary to brand the site, including fonts and colors. In fact, the Nimbus site will inherit its style from the main SharePoint site of which it is inside. The following screenshots, therefore, should be considered purely as examples. The colors and layouts can be adjusted as you wish to comply with your corporate identity.

Nimbus home page in SharePoint

Nimbus role-based searching in SharePoint
A Nimbus diagram in SharePoint

A Nimbus diagram displaying activity attachments
Capabilities and Functionalities

The web front-end of Nimbus provides the same functionality irrespective of whether it is accessed via the SharePoint front-end or the native web user interface. New Nimbus users will find this section of interest; those familiar with the Nimbus web front-end can proceed to the next section.

The design goal of Nimbus has always been to make business process information more accessible and engaging for ordinary business users. This enables business process management initiatives to develop real traction where it’s actually needed – with the end users – rather than business processes being seen as the domain of technical staff, systems analysts, and quality managers.

Therefore, publishing process information into a personalized, collaborative portal is an important aspect of Nimbus. Our job isn’t really done until we’ve got the process content in the possession of the people whose tasks and performance depend on it.

Thus, the portal is key, as personalized delivery makes it easier for people to see the processes relevant to their role and to find the process information they need. But simply delivering process information to the right users is not enough: how can we ensure that the process information is meaningful, accurate and up-to-date? Here again the portal is key. Collaborative capabilities mean that we can notify relevant users when content changes. And collaborative users can ask questions of process owners or process authors, enter discussions, and initiate change requests. When used appropriately, the combination of personalization and collaboration means that the portal becomes the one trusted source for “process truth.”

The content is always up-to-date, making it continuously used and trusted. We call this an intelligent operations manual.
Enterprise Search Integration

The Nimbus repository content (processes, documents and storyboards) is exposed to the Enterprise Search capability built into SharePoint Server 2010 and Microsoft Office SharePoint Server. The Web Part (highlighted in red below) exposes Nimbus Keywords to the enterprise search and returns results along with other enterprise content.

This gives users a unified search capability for all manner of content, including approved Nimbus documents, processes, and storyboards. This capability was released in Nimbus version 7.0.0.

Integration with SharePoint Document Libraries

It is possible to use web links (either direct URLs or Document Registry web links) to reference any web content which is accessible via a URL. There is nothing special about this capability, which was available in earlier versions of Nimbus and has no need for the SharePoint front-end to make it possible.

However, with effect from Nimbus version 7.0.2, it is possible to designate a specific SharePoint document library as the storage medium for the Nimbus Document Registry. A dialog is provided to make it easier to attach a document from the library directly to the required activity box (or line) in a Nimbus diagram. A mass migration utility is also provided to simplify the process of adopting this approach. The benefit of this configuration is that documents stored in the SharePoint document library are exposed to the full enterprise search capabilities of SharePoint, rather than being limited to the keywords search capability described above.
Upload documents from Nimbus into a SharePoint document library

The existing Nimbus Document Registry is still supported which has no requirements for SharePoint. So the adoption of SharePoint is not mandatory in any respect.

How to Implement Nimbus in SharePoint

As mentioned above, the entire Nimbus environment is installed just as normal. Thereafter, you integrate the Nimbus web server into Microsoft SharePoint.

Technical Requirements

The prerequisite items are: Windows Server 2003 (Service Pack 1 or higher), Windows Server 2008 or Windows Server 2008 R2, with Microsoft SharePoint 2007 or Microsoft SharePoint 2010. Please consult the Administration Guide for more details.

Nimbus 6.5.2 Service Pack 1 (or higher) with the Nimbus Web Server installed into the Virtual Directory in the SharePoint 80 site and set up to run with Windows Integrated Authentication enabled.
Outline Implementation Procedure

With the prerequisites mentioned above already established, the next steps are:

1. Create a new virtual directory in the SharePoint 80 site within the _layouts virtual directory (right-click _layouts and choose New, then Virtual Directory). Name this virtual directory ‘nimbus_control’ and point it at the web server main installation folder (for example, C:\Nimbus\Web Server).

2. Install the Nimbus SharePoint solution. This is done by running STSADM.exe on the server with the appropriate path to the “Control.wsp” file.

3. Restart IIS.

4. Deploy the Nimbus site via the SharePoint Admin Site.

5. Recycle the SharePoint Central Administration pool.

6. Create a Nimbus site in SharePoint, via the SharePoint Administration console Application Management tab … Create site collection.

7. Run the Nimbus site.

8. Grant access to required users. Users must be provided with access to use the site. From the Site management page you should add all authenticated users by default unless specific user access is required, in which case the appropriate users should be granted permission. The minimum access requirement for the site is ‘Team Site Visitor’ (read only).
In addition to the above, you can optionally integrate Nimbus web user interface components (Web Parts) into other SharePoint sites. The following web user interface components can be added to other SharePoint sites:

- Favorites (ListOfFavorites.webpart)
- To Dos (ToDos.webpart)
- My Searches (MyTopics.webpart)
- My Searches Results (MyTopicsResult.webpart)
- Diagram Search Results (SearchDiagramsResult.webpart)
- Document Search (Documents.webpart)
- Recently Viewed Items (ListOfRecentlyViewed.webpart)
- Action List (ListOfActions.webpart)

Please refer to your SharePoint documentation for instructions on adding Web Parts to a SharePoint site.

**Configuring Favorites**

You can include or exclude certain favorite items such as processes, documents, measures, storyboards, etc. This can be achieved by editing the Favorites Web Part and selecting or deselecting any of the options under Miscellaneous. Please remember this is purely a summary intended to convey the comparative ease with which the integration can be performed. It is not intended to serve as a full installation guide. Please consult the Administration Guide for full details and if necessary contact Nimbus Support.
Frequently Asked Questions

We don’t use SharePoint currently. Would we have to license this to use the SharePoint front-end?

If you are using Windows Server 2003 or Windows Server 2008, then you are already licensed to use Windows SharePoint Services and SharePoint Foundation 2010 respectively, allowing you to deploy Nimbus to end users via the SharePoint front-end.

I thought SharePoint was another application that I had to license?

Microsoft Office SharePoint Server and SharePoint Server 2010 are additional server applications from Microsoft. Nimbus does not require customers to implement these in order to deploy Nimbus to your end users via the SharePoint front-end.

Can we continue to use the old Nimbus style of web front-end?

Yes. It’s still available in the product. We call it the “Nimbus native front end”. And we will continue to enhance and support the native front-end alongside the SharePoint integration.