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# IBM Lotus Notes and Domino 8.5.3: Upgrader's Guide

Upgrade your system and embrace the exciting new features of the IBM Lotus Notes and Domino 8.5.3 platform

*Foreword by Brent A. Peters*
*Vice President of Product Development for IBM Notes/Domino/iNotes/ LotusLive Notes/Expeditor/Symphony, IBM Lotus Software Development*

**Tim Speed**
**Scott O'Keefe**
**Barry Rosen**

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# Foreword

It's hard to believe that it has been over 22 years since the first release of Lotus Notes was shipped! In an era where software technology continues to evolve at unprecedented speed, and software companies, products, and standards come and go, it is a significant accomplishment that Lotus Notes is just as relevant today as it was back in 1989.

Over the years, Lotus Notes has continued to embrace new technologies and open standards, all the while providing compatibility for previous releases. Backed by a strong and vibrant community of business partners and developers, Lotus Notes social and real-time collaboration features allow you to build relationships, and leverage your current investments, to create new opportunities for growth, innovation, and productivity.

The latest release of IBM Lotus Notes and Lotus Domino continues to expand its rich client ecosystem with forward-thinking, out-of-the-box features that are both cost-effective and innovative, provides integrated collaboration on multiple devices, and allows for rapid application development, while maintaining the highest quality in the industry.

New to Notes/Domino 8.5.3 is a companion product entitlement via Notes Client Access License (CAL). This allows entitlement to Lotus Connections Files and Profiles for Lotus Notes which exposes customers to new technology that allows them to become a social business.

This book will cover the following enhancements to IBM Lotus Notes and Domino 8.5.3 in the following areas:

Mail, Calendaring, Contacts, iNotes, and Designer.

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Written by some of the senior architects and specialists of IBM Software Services for Lotus, this book will provide you with an excellent guide to help you realize the value of your investment in Lotus Notes 8.5.3. You will learn how to leverage the full capabilities of Lotus Notes 8.5.3 and how to quickly move from your existing technology base to this new, feature-rich platform. The authors explore the enhanced productivity tools available with this release, integrating word processing, presentations, and spreadsheets into a seamless unit with your messaging and collaboration solution.

Developers are not forgotten, as new features and tools are revealed. You will delve into the world of SOA, as the authors show you how Lotus Notes can be part of an SOA strategy that can accelerate your business integration and generate value. The book finishes with a few words about other Lotus products, such as Lotus Sametime, Lotus Quickr, Lotus Connections, and IBM WebSphere Portal—such as IBM Lotus Notes, all built on the open standards-based Eclipse Rich Client Platform (RCP) technology. These products are all converging to become the next generation of people productivity solutions.

Over the years, Lotus Notes has come to signify the essence of electronic business communications. With Lotus Notes 8.5.3, IBM has once again provided the user with an intuitive, fully integrated platform to enhance each user's experience with business communications. It is no longer just an e-mail tool, but a basis to extend business communications to a new level.

I hope you find this book valuable as you continue your journey with IBM Lotus Notes and Lotus Domino 8.5.3.

Brent A. Peters

Vice President of Product development for Notes/Domino/iNotes/LotusLive Notes/Expeditor/Symphony

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# About the Authors

**Tim Speed** is an IBM Certified Systems Architect with IBM Software Services for Lotus. In that capacity, he is responsible for designing, implementing, and supporting various engagements with its clients. Mr. Speed lives in Texas and has been an IBM/Lotus employee for over 16 years in a variety of networking, technical, hardware, and software support and consulting positions. He has been working with Notes for over 20 years focusing on administration roles and infrastructure. He also has international experience with working on infrastructure engagements in Spain, Japan, Hong Kong, Singapore, Malaysia, the UK, and Indonesia.

Knowledge is based on many different facets—what you know, knowing where information can be found, and who you know. The information in this book is a combination of all these facets. Data sources have been referenced in this book; these include references to people, URLs, and other books. But much of the knowledge that is in this book comes from very smart people. Not all the people listed in this acknowledgment participated in the writing of this book, but have influenced and guided me in my life that has culminated in this work. First and foremost, I need to thank my wife for helping me with the book and providing some of the editing throughout the various chapters. Next, I want to thank Johnny and Katherine for tolerating me during the months that I worked on this book. Next, I want to thank my mother, Lillian Speed, for teaching me to "think big". Thanks to Ed Speed for the inspiration to keep publishing. Thanks to Packt, in particular Kerry George, for their hard work in getting this book published.

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There are so many people that I want to thank for their help. First, I would like to thank Packt Publishing, for publishing this book. Thank you to my wonderful family. Thanks to IBM where I have been allowed to grow personally and professionally. My manager, Martin Crotty, and John Kistler for approving this book, and all of their support. My co-authors who have poured countless hours and energy into making this book a reality. Tim Speed, without whom this book would not exist. Tim, it seems like yesterday we were eating lunch in Rockefeller Plaza brainstorming on this book. Thanks for your patience and gentle nudging, you have helped me grow personally and professionally beyond my own expectations. My Mother, Father, brother, and grandparents. To all of my colleagues and friends: Mark Guerinot, Chris Cotton, David Bell, Andrea Waugh-Metzger, Sherry Price, Doug Parham, Bob Thietje, Larry Berthelson, John Norton, Marc Hendricks, Jim Price, Yasmin Al-Shibib, Marc Allan, Matt Stien, Michael Granit, Stephen Rafoul, Seth Berk, Rob Buchwald, Aaron Greenberg, and Scott Sapire. Stella you too.

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---

I'd like to thank Tim Speed and Barry Rosen for the opportunity to work on this book. I'd also like to thank all of my Domino Administration buddies past and present for being great colleagues, mentors, friends, and inspirations.

My portion of this book is dedicated to my wife Tricia, and my children Kasey, Matthew and Molly. The best part of my day – every day – is the part that I get to spend with you.

---

# About the Reviewers

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**Stephen Silk** lives in Australia, where he started his IT career as a mainframe operator, taught himself to code using Clipper, and ended up working in OS/2 support for IBM where he discovered Notes/Domino and has been working with it ever since.

He has worked as an administrator, developer, and trainer for such companies as IBM, Barclays Bank, Orica, Dimension Data, Dialog and more government departments than he wants to remember.

He likes cats and wants to move to Canada (preferably British Columbia) at some point. He is happy to travel and is available for consulting work worldwide.

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*To Linda Speed - my loving split apart*
*- Tim Speed*

*I would like to dedicate this book to my family who has offered their incredible*
*support and patience to me. My wife Micol, and my daughter Samantha you are*
*my world and I love you both dearly.*
*- Barry Rosen*

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# Preface

If you're reading this book, you're probably already familiar with Lotus Notes and the Domino server. You know about the powerful productivity features offered by this product and you know how much your company relies on it to communicate, collaborate, and manage its collective store of corporate knowledge. This book is intended to show you the new features of Lotus Notes and Domino 8.5.3. These incredible products keep evolving and growing with each release. This exciting new release will help your end users with new features; but it will also help the administrator with new management features. This book has been written by Notes/Domino "insiders". Collectively, we possess decades of Notes/Domino experience; we've been with the product since Notes 1.0, and since then have worked directly with customers to help them with their Notes/Domino upgrade and deployment issues.

This practical tutorial walks through the new features of the Lotus Notes/Domino 8.5.3 suite and documents technical features in a descriptive way, with examples and useful screenshots. The book also discusses likely problems you might face while upgrading, and shows you how to get the most out of the exciting new features.

## What this book covers

This book will help you understand the new features in Notes client user interface, Domino 8.5.3, and the concepts of a Service Oriented Architecture (SOA) and how Lotus Notes 8.5.3 fits into SOA.

*Chapter 1*, *Lotus Notes 8.5.3 and SOA*, gives a high-level understanding of SOA, what it is, its value, and its characteristics. You will also learn how Lotus Notes 8.5.3 includes many of the characteristics of SOA components, and how it can help you assemble applications that can play a role in an SOA.

*Chapter 2*, *Overview of New Lotus Notes 8.5.3 Client Features*, includes a deeper dive into the new Lotus Notes 8.5.3 components and some of the new LotusLive features that have been included in this release (actually, the LotusLive features were included in 8.5.2)

*Chapter 3*, *Productivity Tools*, provides an overview of three productivity tools—Lotus Symphony Documents, Lotus Symphony Presentations, and Lotus Symphony Spreadsheets. You will see how these tools are integrated with Notes 8.5.3, and how they can now be controlled by Domino policy documents.

*Chapter 4*, *Lotus Domino 8.5.3 Server Features*, reviews the major new and enhanced feature areas in Domino Server 8.5.3. This includes end user and messaging enhancements, administrator enhancements, performance enhancements, directory and security enhancements, and better integration with other IBM technologies.

In *Chapter 5*, *Deployment Enhancements in Notes/Domino 8.5.3*, we examine important Notes/Domino 8.5.3 features that can make rolling out your new deployment significantly easier. We discuss client provisioning, including Eclipse-based client and server provisioning functionality. We also look at policy enhancements and the new database redirect feature.

*Chapter 6*, *Domino 8.5.3 Enhancements*, looks at Domino 8.5.3 core features such as Domino Attachment and Object Service, or DAOS, ID Vault, Notes Shared Login, and auto-populated groups. We also cover iNotes up to 8.5.3. The differences and similarities between web and full Lotus Notes clients are reviewed.

*Chapter 7*, *Upgrading to Lotus Notes and Domino 8.5.3*, is divided into two main sections. The first takes a look at the Notes/Domino upgrade process in general, discussing concepts and steps that should be considered whenever you upgrade to any major release of Notes/Domino. The second section covers upgrade issues that are specific to Notes/Domino 8.5.3.

In *Chapter 8*, *Coexistence between Notes/Domino Releases*, we examine coexistence issues involved with running Notes/Domino 8.5.3 in a mixed environment with one or more previous releases. Also provides a discussion of Domino 8.5.3 server coexistence, including features such as Domino Directory, ODS, Domino Web Access, DDM, and ID files. LotusLive Notes hybrid requirements are also discussed.

In *Chapter 9*, *New features in Notes/Domino 8.5.3 Development*, we review some of the major new features and enhancements that affect Notes/Domino 8.5.3 application development. These include enhancements related to composite applications, Domino Designer 8.5.3, formula language and LotusScript, Lotus Component Designer, Web 2.0, and Lotus Expeditor.

*Chapter 10*, *Integration with Other Lotus/IBM Products*, discusses add-on products for a typical Notes/Domino infrastructure. The specific products covered in this chapter are the most common that you might encounter, including Lotus Quickr, Lotus Sametime, and Lotus Connections. Also, this chapter includes a short introduction to some of the IBM learning tools.

*Chapter 11*, *Domino Configuration Tuner*, gives you a special treat. Several years ago IBM released a tool known as Domino Configuration Tuner (DCT). When this tool was first released, it only included a small set of "testing" rules and server checks. The DCT tool is now a full enterprise tool that will help you analyze your Domino server environment.

# What you need for this book

Some familiarity is needed with Lotus Notes and Domino. This book will cover the advances from Lotus Notes and Domino release 8 through 8.5.3. Basic knowledge of messaging and collaboration technologies is helpful.

# Who this book is for

This book is for Lotus Notes power users, administrators, and developers working with any version of Lotus Notes/Domino, who want to upgrade to Lotus Notes/Domino 8.5.3. Additionally, it can be leveraged by management to gain a high-level understanding of the new features and capabilities offered within the products.

# Conventions

In this book, you will find a number of styles of text that distinguish between different kinds of information. Here are some examples of these styles, and an explanation of their meaning.

**New terms** and **important words** are shown in bold. Words that you see on the screen, in menus or dialog boxes for example, appear in the text like this: "Click the **New Web Service** button to create a new web service."

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Warnings or important notes appear in a box like this.

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# 1

# Lotus Notes 8.5.3 and SOA

**Service-Oriented Architecture** (**SOA**) provides for a set of resources that are linked together on demand. This demand access can be from other systems, and/or users, or even applications that link resources together via a set of standards. Lotus Notes 8.5.3 is built on IBM's release of the Eclipse **Rich Client Platform** (**RCP**). As Lotus Notes 8.5 was built based on a set of standard components, it was a part of an SOA. This provides a more extensible server-managed client.

In this chapter, we will introduce the concept of SOA and how Lotus Notes 8.5.3 fits into one such architecture. We will explain what an SOA is, its value, and its characteristics. We will also cover how Lotus Notes 8.5.3 has many characteristics of SOA components, and how it can help you assemble applications that can play a role in SOA.

In this chapter, we will cover the following topics:

- What is an SOA?
- Why SOAs now?
- The SOA lifecycle
- How Lotus Notes 8.5.3 works with SOAs

## What is an SOA?

Although the concept of SOA is simple, the components that make up SOA can be complex. Additionally, the value and perception of SOA varies with the perspective and role of organizations and people considering SOA. In this chapter, we will start with the basic definition of SOA and then examine specific aspects of SOAs.

The definition of SOA can often be taken further by adding the word "business", as the inherent value comes from business orientation and enablement.

In computing, the term SOA expresses a software architectural concept that defines the use of services to support the requirements of software users. In an SOA environment, nodes in a network make resources available to other participants in the network as independent services which they access in a standardized way. Most definitions of SOA identify the use of web services (using SOAP and WSDL) in its implementation.

SOAs can be used to:

- Build distributed systems that deliver application functionality as services to either end-user applications or other users
- Design and implement distributed systems that allow a tight correlation between the business model and its IT implementation
- Manage services made available by different software packages for re-use and reconfiguration

These uses of SOA highlight the fact that they encompass a wide range of interests.

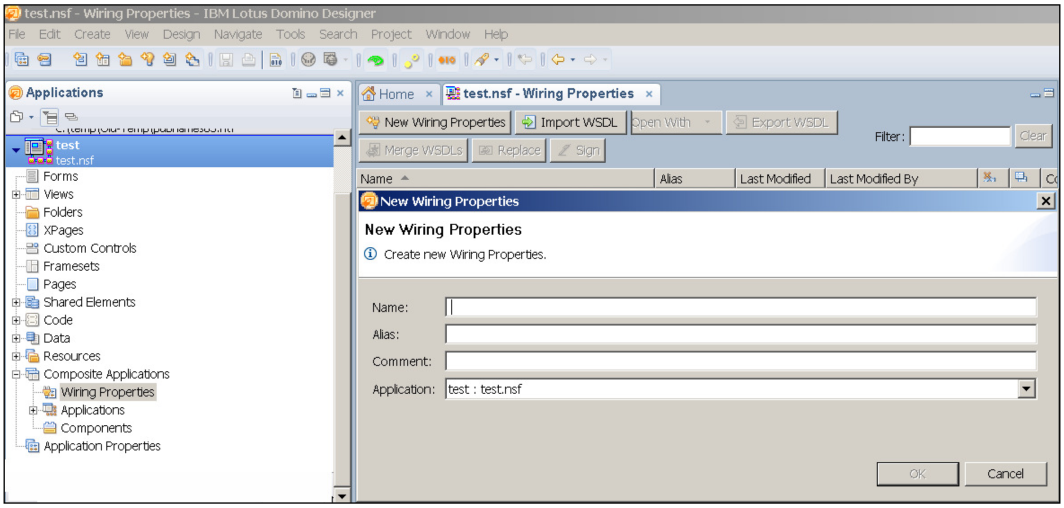
There are many ways to implement and view an SOA. The specific approach and value proposition depends on the needs of the business and the role of the organization or person considering the SOA. In this chapter, we will focus on how businesses can re-use existing Lotus Notes-based functions, and how to take existing Eclipse and WebSphere Portal services and incorporate them into new Lotus Notes functions.

## The characteristics of an SOA

There are some commonly understood characteristics of an SOA. These include the following:

- Services are re-usable and called by many applications
- Service access is with communication protocols rather than direct calls
- Services are loosely coupled so that they are autonomous
- Interfaces are defined in a platform-independent manner
- Services are encapsulated so that the interface doesn't reveal how the service was implemented (this is called **abstraction**)
- Services share a formal contract
- Services are composable (able to be assembled into composite applications)
- Services are stateless
- Services are discoverable

The following screenshot shows how to add an assembled composite application into Lotus Notes Designer 8.5.3:


test.nsf - Wiring Properties - IBM Lotus Domino Designer
File Edit Create View Design Navigate Tools Search Project Window Help
Applications
test
test.nsf
Forms
Views
Folders
XPages
Custom Controls
Framesets
Pages
Shared Elements
Code
Data
Resources
Composite Applications
Wiring Properties
Applications
Components
Application Properties
Home
test.nsf - Wiring Properties
New Wiring Properties
Import WSDL
Open With
Export WSDL
Merge WSDLs
Replace
Sign
Filter:
Clear
Name
Alias
Last Modified
Last Modified By
OK
Cancel

New Wiring Properties

Create new Wiring Properties.

Name:

Alias:

Comment:

Application: test : test.nsf

Later in this chapter, we will examine some of these characteristics and see how Lotus Notes 8.5.3 can interact with an SOA.

# Perspectives on SOAs

From a business perspective, SOA is about identifying, surfacing, and integrating business services to meet business needs.

From an IT perspective, SOA is about responding quickly to changing business needs. IT organizations must determine what style, patterns, or principles provide architecture capable of responding in a timely fashion. These questions must be answered with the understanding that existing applications and systems have been built over time and are hardwired together.

# Why SOAs now?

One key factor in the emergence and success of SOAs is the evolution of standards. Standardization has made SOAs more useful now than ever before. In the past, companies have made numerous attempts to develop a standard to support some versions of SOAs. Standards such as CORBA and DCOM have existed for a while, but have not been widely adopted to allow true interconnection of companies and people.

Thanks to the Internet and standards such as HTML and HTTP, companies and customers are linked together as never before. This linkage is the key to the interconnection and combination of services that distinguish an SOA. As the Internet has matured, web service standards have emerged; they now have a common set of standards across vendors and businesses. Major vendors have agreed on standardization of web services and have incorporated these standardized services into products, providing an unprecedented breadth of tools for supporting an SOA. Standards for interoperability that have been widely adopted include the following:

- **Hypertext Transfer protocol** (**HTTP**)
- **Extensible Markup Language** (**XML**)
- **Simple Object Access Protocol** (**SOAP**)
- **Web Services Description Language** (**WSDL**)
- **Universal Description**, **Discovery**, **and Integration** (**UDDI**)
- OASIS standards, such as **Open Document Format** (**ODF**)

**ODF** is an open XML-based document file format for office applications, which can be used for documents that include spreadsheets, text, and rich text, along with chart types.

> This particular standard was developed by the **Organization for the Advancement of Structured Information Standards** (**OASIS**) consortium and based on the XML format originally created and implemented by the OpenOffice.org office suite.

Other factors play key roles in the adoption of SOAs. For example, mature software and software frameworks are now available across a breadth of vendors, including Eclipse and OSGi. SOA-related governance models and best practices are defined and proven. With the development of the Internet, implementation is now practical, and business/IT collaboration is receiving renewed focus.

# The SOA lifecycle

There are four distinct phases to the lifecycle of an SOA. These are as follows:

- The Model phase
- The Assemble phase
- The Deploy phase
- The Manage phase

This lifecycle provides a framework within which an SOA can be built. However, businesses and IT organizations can choose the place within the lifecycle from where to begin the SOA implementation. (One of the key values of SOA is the ability to get quick benefits by assembling and deploying services without waiting for a full-blown SOA definition.)

## The Model phase

The Model phase of the SOA lifecycle starts with discovering which program assets can be re-used in new applications. You can discover these hidden assets and determine which programs are good candidates for re-use in web applications with a number of tools already in the market.

As we stated earlier, the key value of an SOA is the surfacing of business services. So, to properly identify the business services and understand how they fit into the business, SOA modeling establishes a common understanding of the business processes, objectives, and outcomes between business and IT. The SOA model helps to make sure that any IT application meets the needs of the business and provides a baseline for business service performance.

At the end of the Model phase, you should have a clear inventory of assets showing where they can be used in the business processes that you have modeled.

## The Assemble phase

The Assemble phase is where programs are wrapped as services and used to create composite applications, which bring together core assets that often span multiple platforms. If you use legacy host transactional environments, the tools simplify the development of new web user interfaces, traditional terminal interfaces, and backend business logic.

During the Assemble phase, you can create services out of existing assets such as **Enterprise Resource Planning** (**ERP**) and financial systems, legacy host applications, and other solutions that are currently running your business. If no functionality exists, you can create and test a service to deliver the functionality required for your business process. Once the required services are available, you can orchestrate them so as to implement your business process.

Lotus Notes 8.5.3 includes features to support the Assemble phase of SOA development. We will review those capabilities later in this chapter.

## The Deploy phase

During the Deploy phase, you can configure and scale the runtime environment to meet the service levels required by your business process. You can optimize the services environment to reliably run mission-critical business processes while providing the flexibility to make updates dynamically in response to changing business requirements.

Once it is configured, you can deploy your business process into a robust, scalable, and secure services environment. This service-oriented approach can reduce the cost and complexity associated with maintaining numerous point-to-point integrations.

## The Manage phase

The Manage phase involves managing the underlying service assets, and establishing and maintaining service availability and response times, along with managing and maintaining version control over the services that make up your business processes. The management phase ultimately enables you to make better business decisions sooner than previously possible.

You can monitor key performance indicators in real time to get the information required to prevent, isolate, diagnose, and fix problems, enabling you to provide feedback to the business process model to enable continuous improvement.

Once the SOA has been deployed, you'll need to continue to secure, manage, and monitor the composite applications and underlying resources, from both an IT and a business perspective, so as to get full value from the SOA. Information gathered during the Manage phase on key SOA indicators can provide real-time insight into business processes, enabling you to make better business decisions, and feeding information back into the SOA lifecycle for continuous process improvement.

# How Lotus Notes 8.5.3 works with SOAs

Now that we've covered the basics of SOAs, it is time to examine how Lotus Notes 8.5.3 fits in. Lotus Notes can help an organization achieve target architecture requirements with SOA characteristics by:

- Supporting service re-use. Lotus Notes 8.5.3 does this by providing a composite application development capability, and by providing web service consumer and producer capability.
- Enabling further extension of Lotus Notes to work with SOAs through an open technologies framework.

## Composite applications

Lotus Notes 8.5.3 has the ability to assemble composite applications. This ability is useful in the Assemble phase of the SOA lifecycle.

A composite application is a loosely coupled collection of user-facing components brought together for a specific business purpose. Composite applications provide the frontend of an SOA. The ability to create and edit composite applications lets you easily combine and re-use different services, providing a tremendous platform for service re-use—a key characteristic of an SOA. With Lotus Notes 8.5.3, server-managed, NSF-based composite applications can be created or edited. An NSF-based composite application can consist of NSF, Eclipse, and WebSphere Portal components.

Elimination of information and service "silos" is a key benefit of composite applications for end users. With composite applications, the services are loosely coupled and independent (not hardwired into the infrastructure), so they can be easily re-used or extended, as business needs change. This is an important element in enabling a business to respond flexibly to business changes and to alter application interactions as needs dictate. Available online or offline, composite applications can facilitate self-service activities. Using the Composite Application Editor within the Lotus Notes 8.5.3 software, end users and LOB managers can create composite applications. IT staff can use their current development skills to build and modify reusable components, helping to reduce IT and development costs. Organizations can re-use previously developed Eclipse technology-based components within the composite applications experienced by Lotus Notes and Domino 8 software, helping to increase return on investment in application development tools and skills.

The **Composite Application Editor** is an install-time option of the Lotus Notes 8.5.3 client. Composite applications can be built with minimal or no NSF design changes to re-use existing Lotus Notes applications as components of the composite application.

Development responsibilities for building composite applications can be distributed across several types of application development and administration team members. The process does not have to be restricted to a highly skilled component developer. The roles in composite application development typically include the following:

- A component developer who designs and creates NSF and Eclipse components
- An application assembler who defines and assembles the composite application, and who may be a business user
- An application administrator who deploys portlets onto the WebSphere portal and maintains NSF-based composite applications on the Domino server

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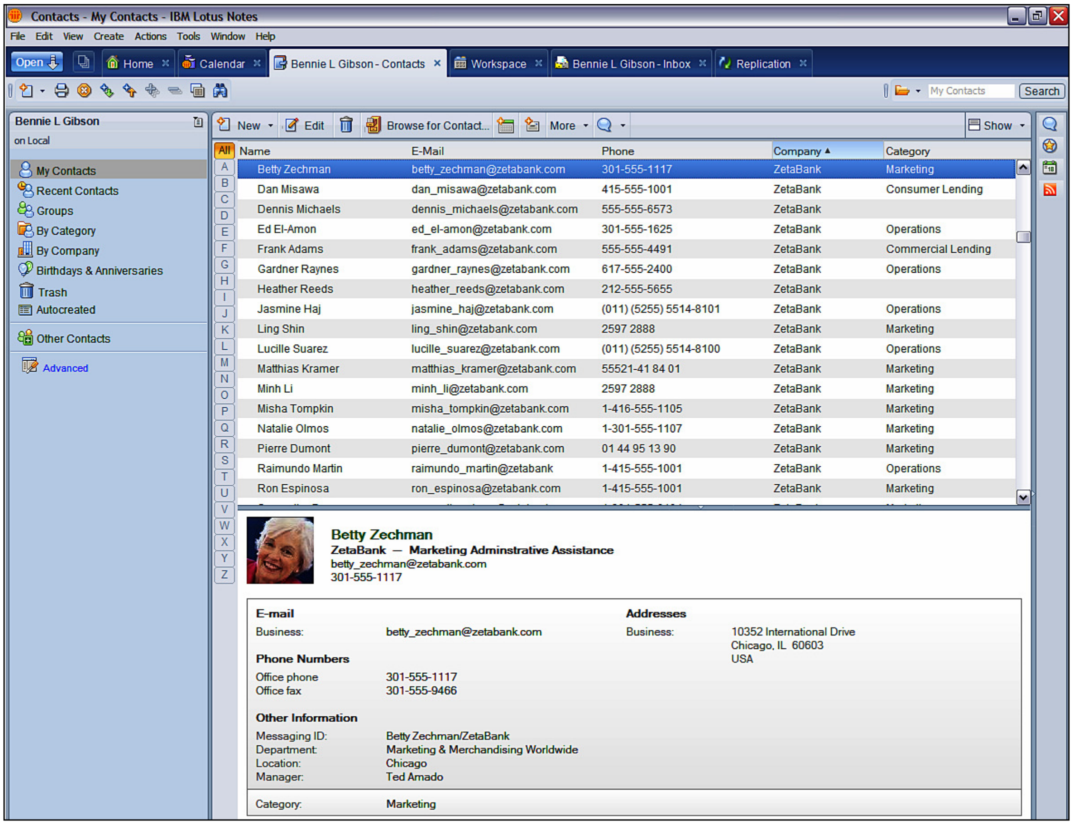
The following section provides an example of how Lotus Notes 8.5.3 enables composite application assembly. The documentation and files necessary to build this example can be found by visiting `http://www-03.ibm.com/developerworks/blogs/page/CompApps?entry=more_sophisticated_tutorial_of_composite`.

The first component of this example is Lotus Notes contacts.

The following screenshot shows the **Contacts** view of Lotus Notes. On its own, this component shows a list of contacts and has a preview pane showing the details for the currently selected contact. Certainly, this is a valuable service by itself. But our example shows how you can re-use this service, combine it with other services, and extend the value of this component:


Contacts - My Contacts - IBM Lotus Notes
File
Edit
View
Create
Actions
Tools
Window
Help
Open
Home
Calendar
Bennie L Gibson - Contacts
Workspace
Bennie L Gibson - Inbox
Replication
My Contacts
Search
Bennie L Gibson
on Local
My Contacts
Recent Contacts
Groups
By Category
By Company
Birthdays & Anniversaries
Trash
Autocreated
Other Contacts
Advanced
New
Edit
Browse for Contact...
More
Show
All
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
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| Lucille Suarez | lucille_suarez@zetabank.com | (011) (5255) 5514-8100 | ZetaBank | Operations |
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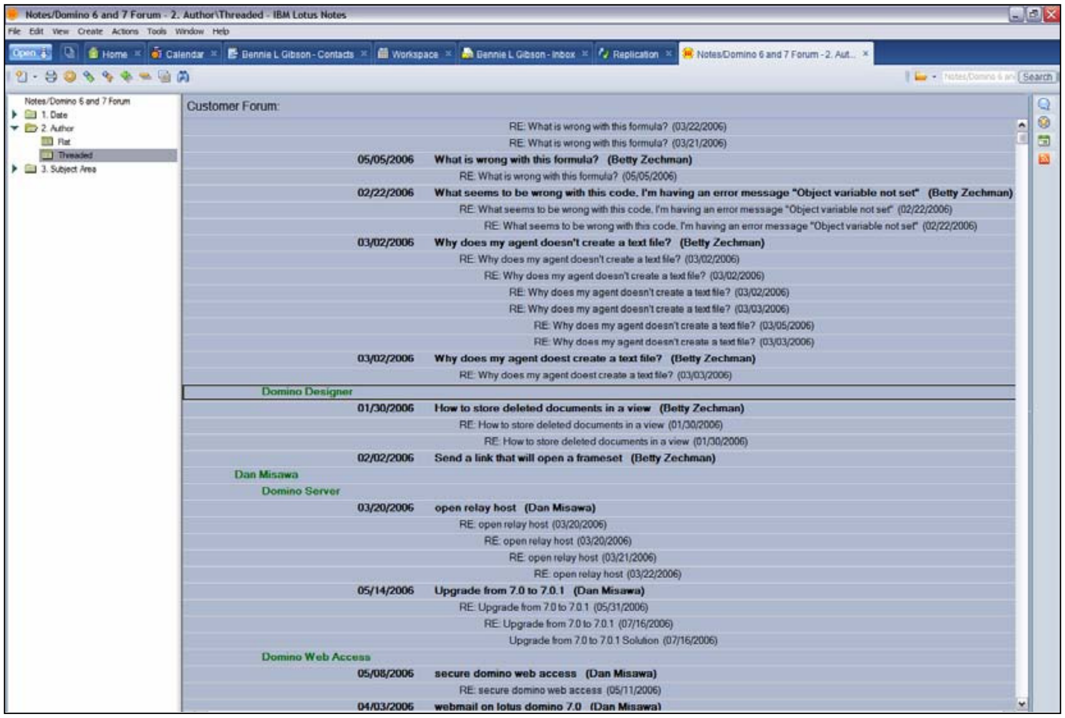
USA

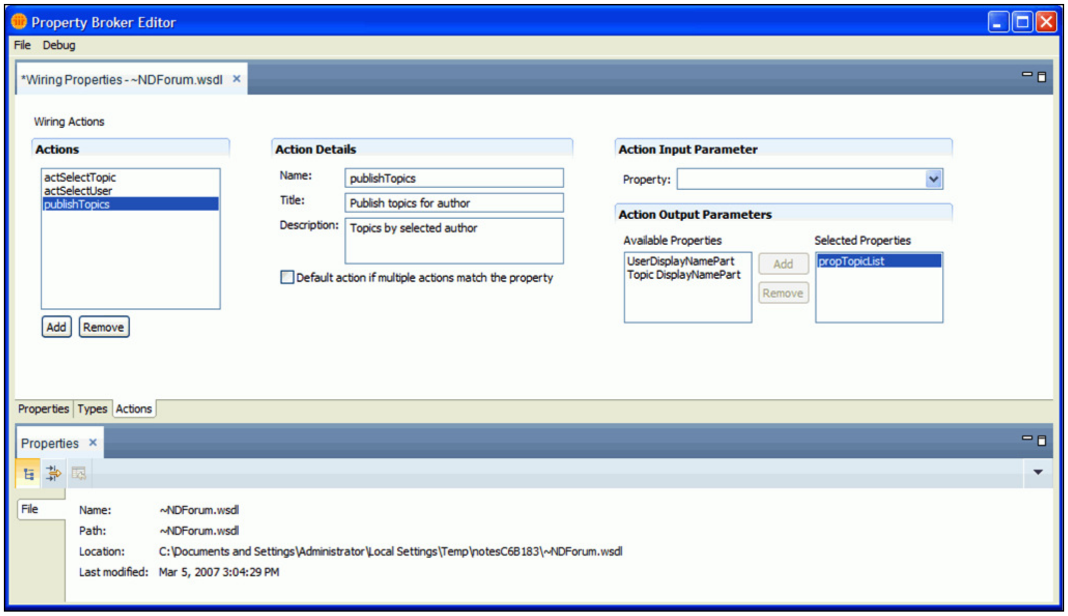
Category: Marketing

The second component of this example is a Lotus Notes discussion application that is shown in the following screenshot. This component allows users to discuss topics (in this case, Lotus Notes Designer) in a user discussion forum setting. Again, this on its own is a useful component, but our example will combine this component with Lotus Notes contacts to create a new, more useful service by loosely coupling these components:


Notes/Domino 6 and 7 Forum - 2. Author\Threaded - IBM Lotus Notes
File Edit View Create Actions Tools Window Help
Open
Home
Calendar
Bennie L Gibson - Contacts
Workspace
Bennie L Gibson - Inbox
Replication
Notes/Domino 6 and 7 Forum - 2. Aut...
Search
Notes/Domino 6 and 7 Forum
1. Date
2. Author
Flat
Threaded
3. Subject Area

```
Customer Forum:
                              RE: What is wrong with this formula?  (03/22/2006)
                              RE: What is wrong with this formula?  (03/21/2006)
          05/05/2006   What is wrong with this formula?   (Betty Zechman)
                          RE: What is wrong with this formula?  (05/05/2006)
          02/22/2006   What seems to be wrong with this code. I'm having an error message "Object variable not set"   (Betty Zechman)
                          RE: What seems to be wrong with this code. I'm having an error message "Object variable not set"  (02/22/2006)
                            RE: What seems to be wrong with this code. I'm having an error message "Object variable not set"  (02/22/2006)
          03/02/2006   Why does my agent doesn't create a text file?   (Betty Zechman)
                          RE: Why does my agent doesn't create a text file?  (03/02/2006)
                            RE: Why does my agent doesn't create a text file?  (03/02/2006)
                              RE: Why does my agent doesn't create a text file?  (03/02/2006)
                              RE: Why does my agent doesn't create a text file?  (03/03/2006)
                                RE: Why does my agent doesn't create a text file?  (03/05/2006)
                                RE: Why does my agent doesn't create a text file?  (03/03/2006)
          03/02/2006   Why does my agent doest create a text file?   (Betty Zechman)
                          RE: Why does my agent doest create a text file?  (03/03/2006)
      Domino Designer
          01/30/2006   How to store deleted documents in a view   (Betty Zechman)
                          RE: How to store deleted documents in a view  (01/30/2006)
                            RE: How to store deleted documents in a view  (01/30/2006)
          02/02/2006   Send a link that will open a frameset   (Betty Zechman)
    Dan Misawa
      Domino Server
          03/20/2006   open relay host   (Dan Misawa)
                          RE: open relay host  (03/20/2006)
                            RE: open relay host  (03/20/2006)
                              RE: open relay host  (03/21/2006)
                                RE: open relay host  (03/22/2006)
          05/14/2006   Upgrade from 7.0 to 7.0.1   (Dan Misawa)
                          RE: Upgrade from 7.0 to 7.0.1  (05/31/2006)
                            RE: Upgrade from 7.0 to 7.0.1  (07/16/2006)
                              Upgrade from 7.0 to 7.0.1 Solution  (07/16/2006)
      Domino Web Access
          05/08/2006   secure domino web access   (Dan Misawa)
                          RE: secure domino web access  (05/11/2006)
          04/03/2006   webmail on lotus domino 7.0   (Dan Misawa)
```

In the first step in this example, the Lotus Notes 8.5.3 Designer uses **Web Services Description Language** (**WSDL**) to expose properties and actions needed to navigate within the Lotus Notes forum application. The following screenshot is from the Lotus Notes 8.5.3 Designer where the final step of the WSDL creation is being completed:


Property Broker Editor
File
Debug
*Wiring Properties - ~NDForum.wsdl
Wiring Actions
Actions
Action Details
Action Input Parameter
Action Output Parameters
Available Properties
Selected Properties
Add
Remove
Properties
Types
Actions
File

Actions:
actSelectTopic
actSelectUser
publishTopics

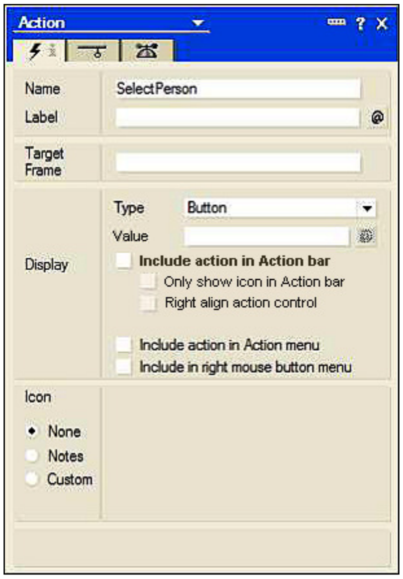
Name: publishTopics
Title: Publish topics for author
Description: Topics by selected author
☐ Default action if multiple actions match the property

Property:

Available Properties: UserDisplayNamePart, Topic DisplayNamePart
Selected Properties: propTopicList

Name: ~NDForum.wsdl
Path: ~NDForum.wsdl
Location: C:\Documents and Settings\Administrator\Local Settings\Temp\notesC6B183\~NDForum.wsdl
Last modified: Mar 5, 2007 3:04:29 PM

In addition to using WSDL, the Lotus Notes 8.5.3 Designer also allows you to create actions to be implemented during the assembly of a composite application. In this case, the action is called **SelectPerson**, as shown in the following screenshot:



Name: SelectPerson

Label:

Target Frame:

Display

Type: Button

Value:

☐ **Include action in Action bar**

☐ Only show icon in Action bar

☐ Right align action control

☐ Include action in Action menu

☐ Include in right mouse button menu

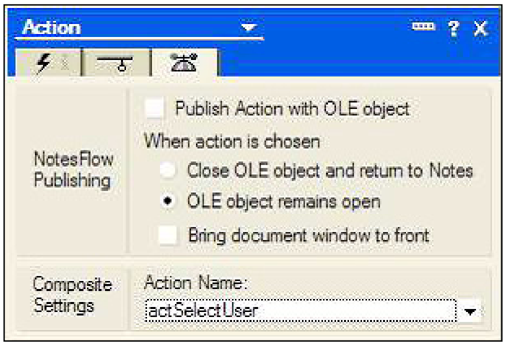
Icon

● None

○ Notes

○ Custom

This action will select the forum entry for the current selection in the Lotus Notes contacts component, as shown in the following screenshot:



NotesFlow Publishing

☐ Publish Action with OLE object

When action is chosen

○ Close OLE object and return to Notes

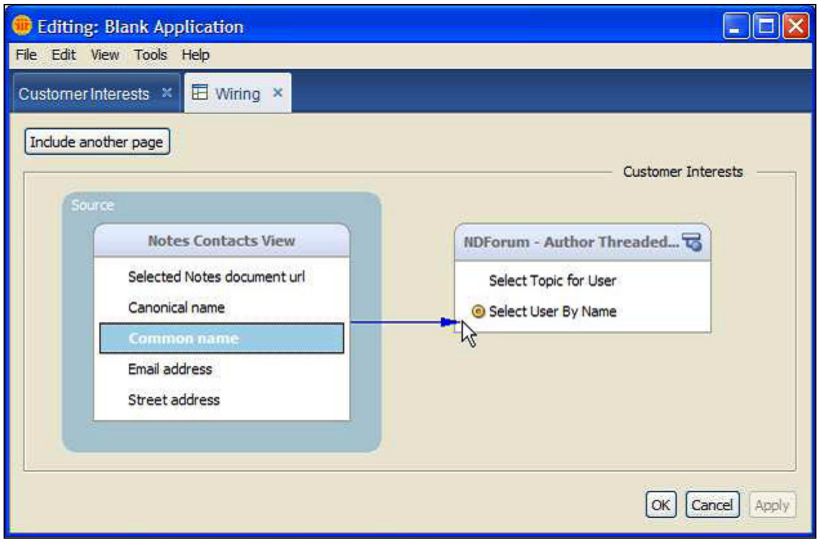
● OLE object remains open

☐ Bring document window to front

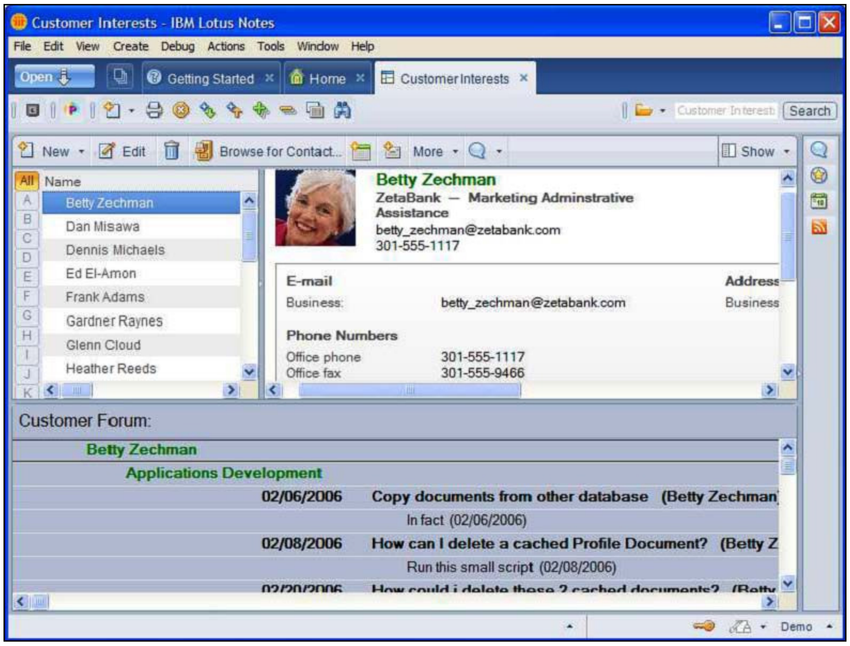
Composite Settings

Action Name: actSelectUser

With the appropriate WSDL action associated with the Lotus Notes Forum application, the prerequisites for assembling the composite application are in place. In the following screenshot, the Composite Application Editor is used to wire the Lotus Notes **Contacts** view and the Notes forum application:


Editing: Blank Application
File Edit View Tools Help
Customer Interests
Wiring
Include another page
Customer Interests
Source
Notes Contacts View
Selected Notes document url
Canonical name
Common name
Email address
Street address
NDForum - Author Threaded...
Select Topic for User
Select User By Name
OK
Cancel
Apply

The result is a composite application in which the Notes Forum entry is displayed based on the selected Lotus Notes contact. As you can see in the following screenshot, **Betty Zechman** of **ZetaBank** is the currently selected Lotus Notes contact and the Lotus Notes Forum has been advanced to show the threads for **Betty Zechman**.


Customer Interests - IBM Lotus Notes
File Edit View Create Debug Actions Tools Window Help
Open
Getting Started
Home
Customer Interests
Customer Interests
Search
New
Edit
Browse for Contact...
More
Show
All
Name
A B C D E F G H I J K

Betty Zechman
Dan Misawa
Dennis Michaels
Ed El-Amon
Frank Adams
Gardner Raynes
Glenn Cloud
Heather Reeds

**Betty Zechman**
ZetaBank — Marketing Adminstrative Assistance
betty_zechman@zetabank.com
301-555-1117

**E-mail**
Business: betty_zechman@zetabank.com

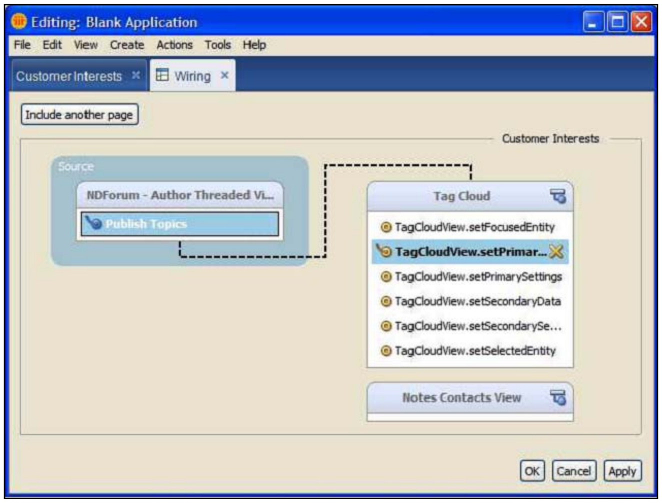
**Address**
Business

**Phone Numbers**
Office phone 301-555-1117
Office fax 301-555-9466

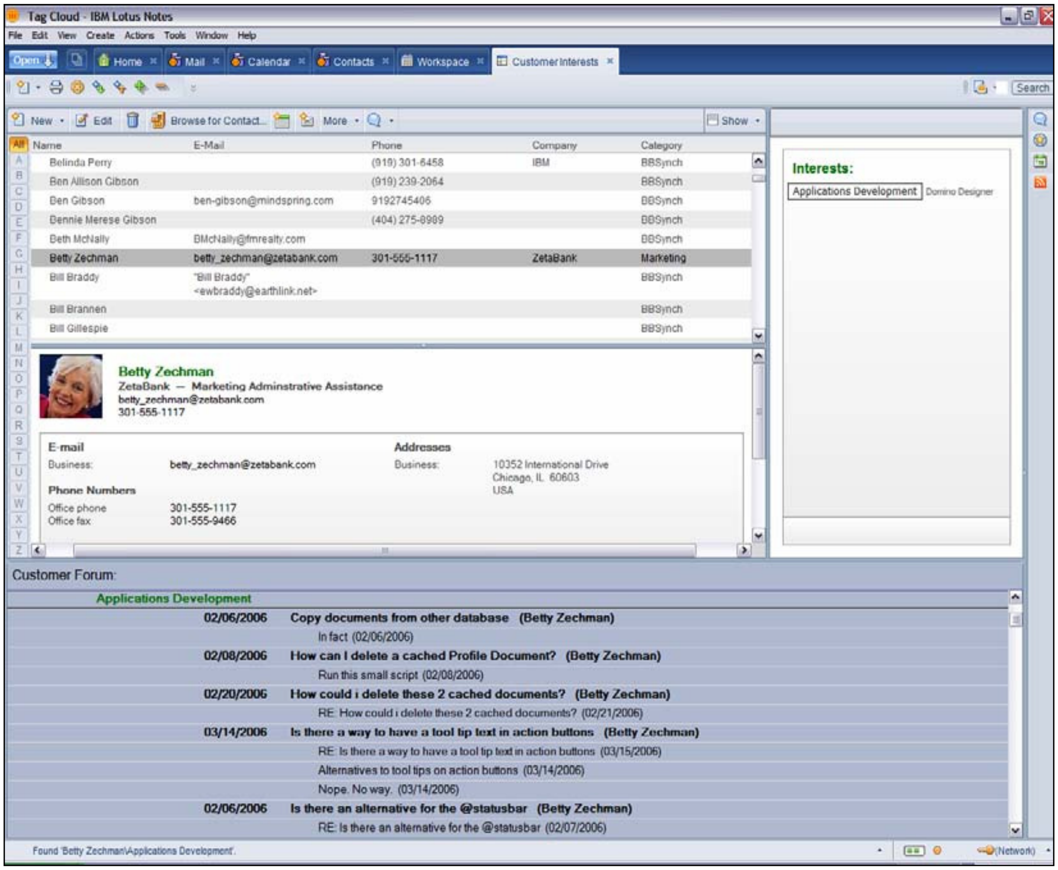
Customer Forum:

Betty Zechman
Applications Development
02/06/2006 Copy documents from other database (Betty Zechman)
In fact (02/06/2006)
02/08/2006 How can I delete a cached Profile Document? (Betty Z
Run this small script (02/08/2006)
02/20/2006 How could i delete these 2 cached documents? (Betty

Next, the Composite Application Editor is used to include an Eclipse tag cloud in the composite application. This component displays tag data about the current contact. This is accomplished by linking the Eclipse component to the Lotus Notes Forum application.


Editing: Blank Application
File Edit View Create Actions Tools Help
Customer Interests
Wiring
Include another page
Customer Interests
Source
NDForum - Author Threaded Vi...
Publish Topics
Tag Cloud
TagCloudView.setFocusedEntity
TagCloudView.setPrimar...
TagCloudView.setPrimarySettings
TagCloudView.setSecondaryData
TagCloudView.setSecondarySe...
TagCloudView.setSelectedEntity
Notes Contacts View
OK
Cancel
Apply

In the following screenshot, the current Lotus Notes contact selection is **Betty Zechman** and the interest selected is **Applications Development**. The result is a view of the Notes forum positioned in a thread by **Betty Zechman** related to **Applications Development**:


Tag Cloud - IBM Lotus Notes
File Edit View Create Actions Tools Window Help
Open
Home
Mail
Calendar
Contacts
Workspace
Customer Interests
Search
New
Edit
Browse for Contact...
More
Show
All
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
Interests:
Domino Designer

| Name | E-Mail | Phone | Company | Category |
|---|---|---|---|---|
| Belinda Perry | | (919) 301-6458 | IBM | BBSynch |
| Ben Allison Gibson | | (919) 239-2064 | | BBSynch |
| Ben Gibson | ben-gibson@mindspring.com | 9192745406 | | BBSynch |
| Bennie Merese Gibson | | (404) 275-8989 | | BBSynch |
| Beth McNally | BMcNally@fmrealty.com | | | BBSynch |
| Betty Zechman | betty_zechman@zetabank.com | 301-555-1117 | ZetaBank | Marketing |
| Bill Braddy | "Bill Braddy" <ewbraddy@earthlink.net> | | | BBSynch |
| Bill Brannen | | | | BBSynch |
| Bill Gillespie | | | | BBSynch |

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**Addresses**
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Chicago, IL 60603
USA

Interests: Applications Development

Customer Forum:

Applications Development
02/06/2006 Copy documents from other database (Betty Zechman)
In fact (02/06/2006)
02/08/2006 How can I delete a cached Profile Document? (Betty Zechman)
Run this small script (02/08/2006)
02/20/2006 How could i delete these 2 cached documents? (Betty Zechman)
RE: How could i delete these 2 cached documents? (02/21/2006)
03/14/2006 Is there a way to have a tool tip text in action buttons (Betty Zechman)
RE: Is there a way to have a tool tip text in action buttons (03/15/2006)
Alternatives to tool tips on action buttons (03/14/2006)
Nope. No way. (03/14/2006)
02/06/2006 Is there an alternative for the @statusbar (Betty Zechman)
RE: Is there an alternative for the @statusbar (02/07/2006)

Found 'Betty Zechman\Applications Development'.

This simple example shows the power of Lotus Notes 8 Composite Application Editor. Minimal Lotus Notes designer effort, combined with use of the Lotus Notes 8 client Composite Application Editor, can produce a new business function re-using existing heterogeneous services.

## Lotus Notes (version 8 and 8.5.3) and web services

Web service producer and consumer capability is not new to Lotus Notes 8 and Notes 8.5.3. However, the ability to produce and consume web services is a key characteristic of SOA. This section provides an overview of how Lotus Notes supports web service production and consumption.

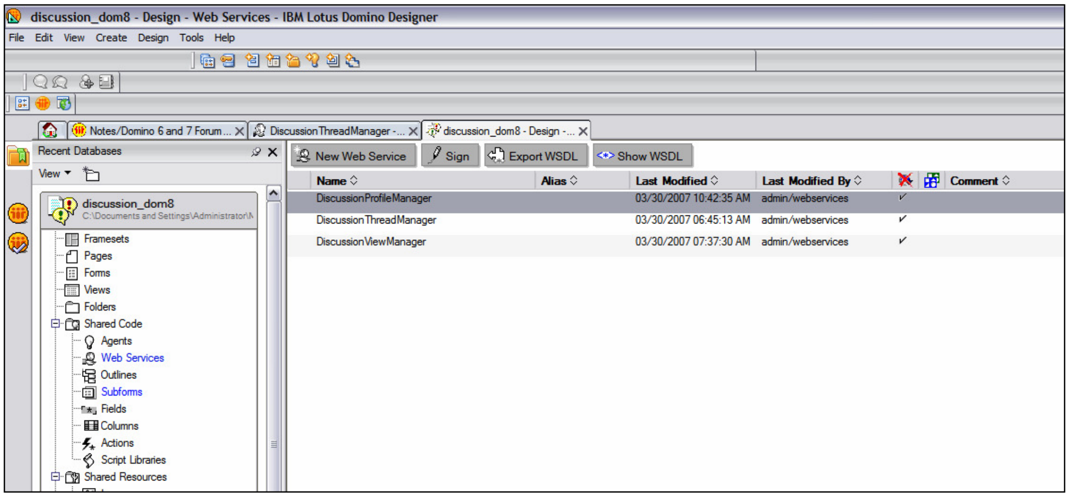
A web service provider makes available a WSDL document that defines the service interface. The WSDL document is in XML format. What happens behind the interface is up to the provider, but most providers map the interface to procedure calls in a supported programming language. Incoming requests from a consumer are passed to the underlying code, and results are passed back to the consumer.

Lotus Domino maps the WSDL interface to an agent-like web service design element that can be coded in LotusScript or Java. The web service must be on a Domino server with HTTP enabled. (We can test the web service through an HTTP session in the Notes client preview.) Access is through one of the following Domino URL commands:

- `OpenWebService`: This invokes the web service in response to a SOAP-encoded message, sent through an HTTP `POST` request. An HTTP `GET` request (for example, a browser query) returns the name of the service and its operations.
- `WSDL`: This returns the WSDL document in response to an HTTP `GET` request.

Several approaches can be used to create a web service design element in Domino Designer. One approach is to code the service entirely in LotusScript or Java. In this case, saving the design element generates a WSDL document that reflects the LotusScript or Java code. Alternatively, an existing WSDL document can be imported. In this case, the LotusScript or Java code reflects the operations in the imported WSDL document. The web service design element saves the WSDL document as well as the code. If the public interface has not changed, the WSDL document stays as it is. If anything in the coding that affects the public interface is changed, a new WSDL document is generated.

In Domino Designer, the web service design element resides below **Agents** under the **Shared Code** element, as shown in the following screenshot:


discussion_dom8 - Design - Web Services - IBM Lotus Domino Designer
File Edit View Create Design Tools Help
Notes/Domino 6 and 7 Forum ...
DiscussionThreadManager - ...
discussion_dom8 - Design - ...
Recent Databases
View
discussion_dom8
C:\Documents and Settings\Administrator\
Framesets
Pages
Forms
Views
Folders
Shared Code
Agents
Web Services
Outlines
Subforms
Fields
Columns
Actions
Script Libraries
Shared Resources
New Web Service
Sign
Export WSDL
Show WSDL

| Name | Alias | Last Modified | Last Modified By | | | Comment |
|---|---|---|---|---|---|---|
| DiscussionProfileManager | | 03/30/2007 10:42:35 AM | admin/webservices | ✓ | | |
| DiscussionThreadManager | | 03/30/2007 06:45:13 AM | admin/webservices | ✓ | | |
| DiscussionViewManager | | 03/30/2007 07:37:30 AM | admin/webservices | ✓ | | |

The Web Services design window looks a lot like the Agent design window. Clicking on the **New Web Service** button creates a new web service. Double-clicking on the name of an existing web service opens it for editing.

An example of a web service to access Domino databases can be found by visiting the following URL:

`http://www-10.lotus.com/ldd/pfwiki.nsf/dx/ibm-using-web-services-to-access-a-domino-discussion-database`

# Lotus Notes 8.5.x and open technologies

Lotus Notes 8.5.x supports both OASIS/ODF and Eclipse open formats.

## OASIS/ODF

Lotus Notes 8.5.3 supports both OASIS/ODF and Eclipse open formats. Word processing, spreadsheet, and presentation applications are basic, standard tools that many business users need and use on a daily basis. The Lotus Notes 8 and 8.5.3 product suite includes a suite of office productivity tools that allows end users to create, edit, and collaborate on a wide variety of file types. The Lotus Notes 8.x product suite is packaged with IBM productivity tools that support OASIS. **Open Document Format** (**ODF**) is an international standard for saving and sharing editable documents such as word processing documents, spreadsheets, and presentations.

## Eclipse

At the core of the Lotus Notes 8.x software (and the higher versions), is IBM's version of Eclipse **Rich Client Platform** (**RCP**) technology, which introduces a new, open, standards-based SOA that makes the Lotus Notes 8 software more extensible. In fact, a number of the new features of Lotus Notes 8 are a direct result of this extensibility (for instance, Sametime integration and RSS feed integration).

IBM has built a common client platform named **Lotus Expeditor** (previously called **WebSphere Everyplace Deployment** or **WED**) that packages the Eclipse Rich Client Platform with some extra services such as security, synchronization, data, deployment, and more, which can be used across the IBM software product set. The Lotus Notes 8 client is a consumer of this Lotus Expeditor common platform. This provides additional functionality while ensuring forward compatibility for existing Lotus Notes and Domino applications.

Lotus Notes 8 and 8.5.x software supports nearly all custom Lotus Notes applications built for prior versions and incorporates the open standards of the Eclipse application development framework, allowing the use of a componentized SOA. This provides help in making it easy to aggregate, access, and deploy functionality from a mix of software programs and systems. It enables developers to build applications more quickly and to re-use existing assets as business needs arise.

# Summary

In this chapter, we introduced Service-Oriented Architectures (SOAs) and covered how Lotus Notes 8 and 8.5.3 support it. We then looked at several Lotus Notes features and capabilities that can help you implement SOA-based architectures within your own organization.

We then discussed that with a foundation in open technologies such as Eclipse and with the introduction of the Composite Application Editor, Lotus Notes can be a key part of SOA.

We also saw that currently Lotus Notes 8 only participates directly in the Assemble phase of an SOA lifecycle. However, the open framework on which Lotus Notes 8 is based provides a highly flexible platform, and we can expect to see a significant growth of Lotus Notes as a key factor in the growth and adoption of SOAs.

In the next chapter, we will examine the new features in the Lotus Notes client, from version 8 continuing through the latest version, Lotus Notes 8.5.3.

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# 2

# Overview of New Lotus Notes 8.5.3 Client Features

This chapter will cover the new client features of Lotus Notes 8, 8.5 and 8.5.3. The first sections will cover the 8.0 client and the latter sections, 8.5 through 8.5.3 client. In this chapter, we will look at the major new features offered in the following:

- Lotus Notes 8
- Lotus Notes 8.5
- Lotus Notes 8.5.1
- Lotus Notes 8.5.2
- Lotus Notes 8.5.3

## Lotus Notes 8.0

This section will examine some of the new features introduced in the Lotus Notes 8.0 client. In addition to the "user visible" features, the Lotus Notes 8 client is built upon an open standards Eclipse-based architecture. This architecture allows greater flexibility of the client for customization and fits better into an SOA than previous releases do.

Lotus Notes 8 also provided a more consistent experience across a greater variety of operating system platforms. The Lotus Notes 8 client also offers a consistent installation process for both the Microsoft Windows operating system users and Linux desktop users.

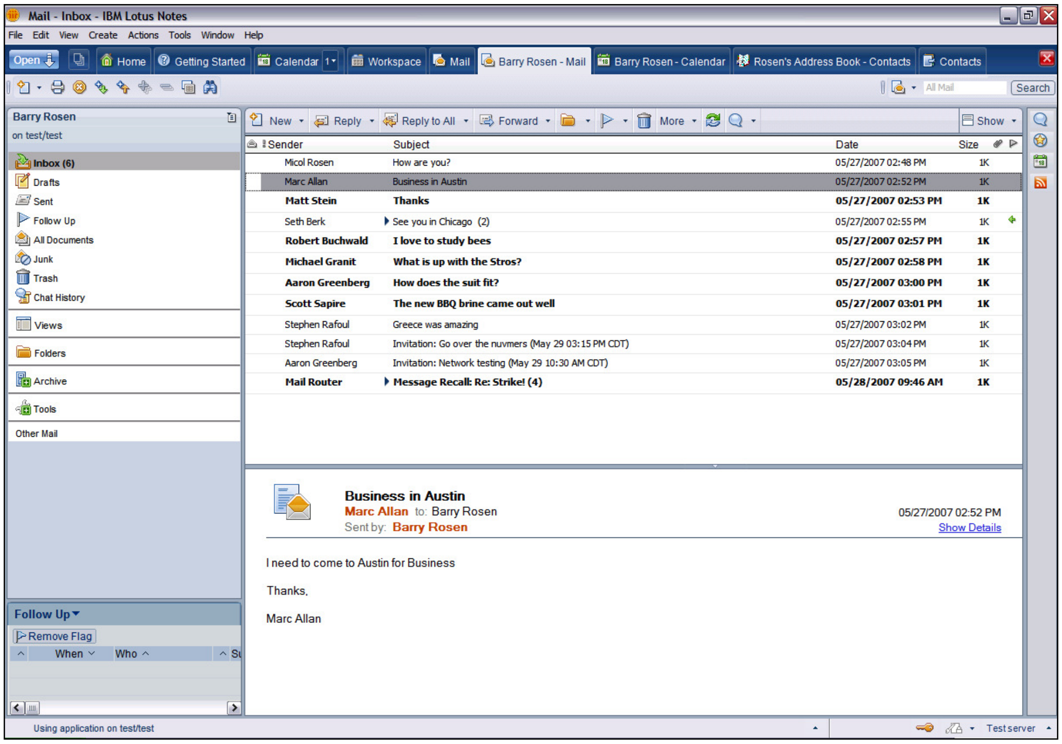
Enhancements in Lotus Notes 8 for Linux included integrated instant messaging and presence awareness, the Lotus Notes SmartIcons toolbar, and support for color printing.

This section of the chapter will highlight the following areas:

- User interface enhancements
- Mail features
- Calendar features
- Contacts

## User interface enhancements

Long-time Lotus Notes users will notice that the Lotus Notes 8 user interface looks significantly different from previous releases. These changes are the result of carefully considering and incorporating user feedback and suggestions. The following screenshot shows the Inbox view:


Mail - Inbox - IBM Lotus Notes
File Edit View Create Actions Tools Window Help
Open
Home
Getting Started
Calendar
Workspace
Mail
Barry Rosen - Mail
Barry Rosen - Calendar
Rosen's Address Book - Contacts
Contacts
All Mail
Search
Barry Rosen
on test/test
Inbox (6)
Drafts
Sent
Follow Up
All Documents
Junk
Trash
Chat History
Views
Folders
Archive
Tools
Other Mail
Follow Up
Remove Flag
When
Who
New
Reply
Reply to All
Forward
More
Show
Using application on test/test
Test server

| Sender | Subject | Date | Size |
|---|---|---|---|
| Micol Rosen | How are you? | 05/27/2007 02:48 PM | 1K |
| Marc Allan | Business in Austin | 05/27/2007 02:52 PM | 1K |
| **Matt Stein** | **Thanks** | **05/27/2007 02:53 PM** | **1K** |
| Seth Berk | See you in Chicago (2) | 05/27/2007 02:55 PM | 1K |
| **Robert Buchwald** | **I love to study bees** | **05/27/2007 02:57 PM** | **1K** |
| **Michael Granit** | **What is up with the Stros?** | **05/27/2007 02:58 PM** | **1K** |
| **Aaron Greenberg** | **How does the suit fit?** | **05/27/2007 03:00 PM** | **1K** |
| **Scott Sapire** | **The new BBQ brine came out well** | **05/27/2007 03:01 PM** | **1K** |
| Stephen Rafoul | Greece was amazing | 05/27/2007 03:02 PM | 1K |
| Stephen Rafoul | Invitation: Go over the nuvmers (May 29 03:15 PM CDT) | 05/27/2007 03:04 PM | 1K |
| Aaron Greenberg | Invitation: Network testing (May 29 10:30 AM CDT) | 05/27/2007 03:05 PM | 1K |
| **Mail Router** | **Message Recall: Re: Strike! (4)** | **05/28/2007 09:46 AM** | **1K** |

**Business in Austin**
**Marc Allan** to: Barry Rosen
Sent by: **Barry Rosen**
05/27/2007 02:52 PM
Show Details

I need to come to Austin for Business

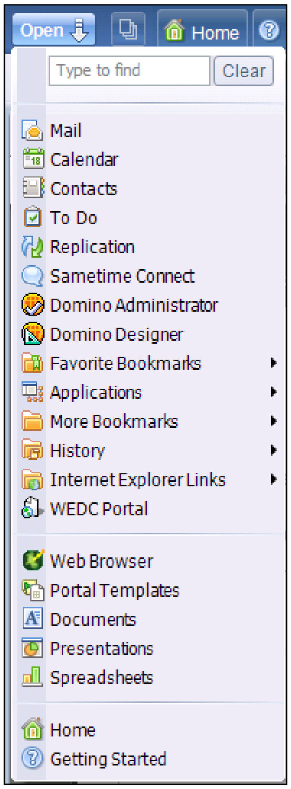
Thanks,

Marc Allan

> Upgrading from a previous release of the Lotus Notes client will retain your existing welcome page.

## Open list menu

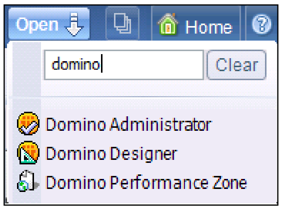
In previous releases of Lotus Notes, the various data stores were known as **databases**. Lotus Notes databases are now called **Applications** (as shown in the following screenshot) starting in the Lotus Notes 8.0 client. There is also a new method to access them. To-do this, click on a new menu button called **Open**. This button is located in the upper left-hand corner of the client interface, as shown in the following screenshot:


Open
Home
Type to find
Clear
Mail
Calendar
Contacts
To Do
Replication
Sametime Connect
Domino Administrator
Domino Designer
Favorite Bookmarks
Applications
More Bookmarks
History
Internet Explorer Links
WEDC Portal
Web Browser
Portal Templates
Documents
Presentations
Spreadsheets
Home
Getting Started

From this menu, you can access the same links as from your default home page, as well as some additional links.

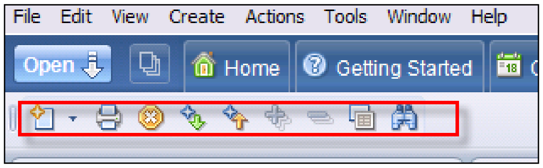
> Bookmarks from previous releases will be migrated if the client is upgraded to Lotus Notes 8.0 and 8.5.x from a previous release. The workspace page is also available.

A feature that is very helpful is the search feature in the **Open** menu. When entering text in this search, the **Open** menu will contextually adjust to show only the contents of your search, as shown in the following screenshot:


Open
Home
domino
Clear
Domino Administrator
Domino Designer
Domino Performance Zone

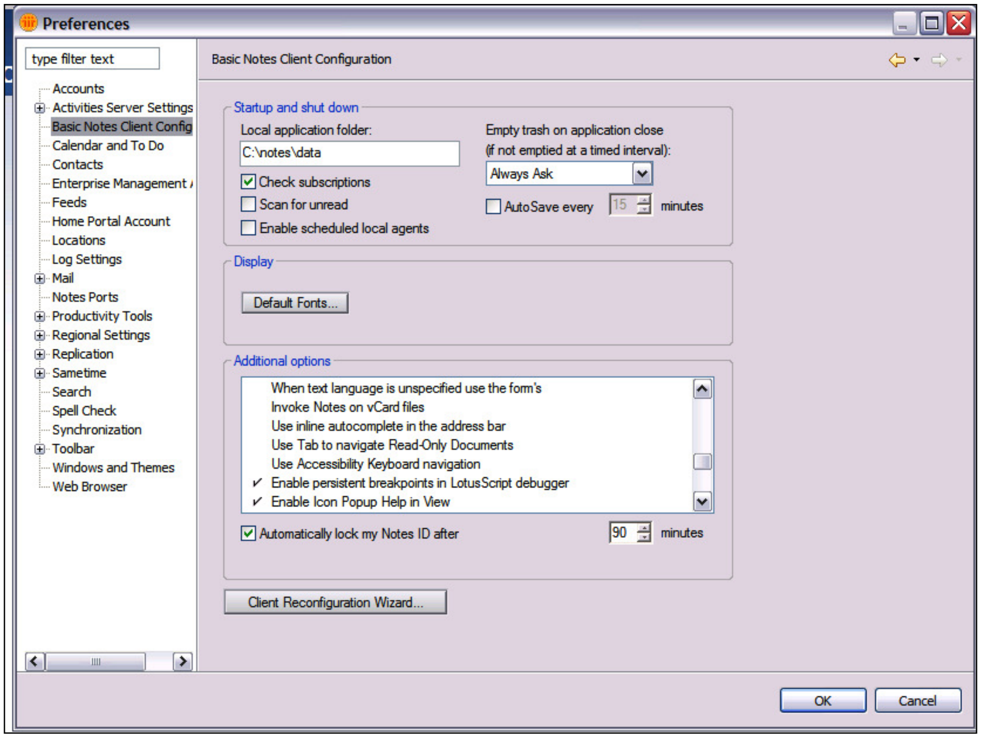
# Toolbars

Lotus Notes 8 features contextual toolbars. Toolbars are now related to the tab of the application that is being used. Contextual toolbars allow only the tools that are necessary to be displayed, as shown in the following screenshot:


File
Edit
View
Create
Actions
Tools
Window
Help
Open
Home
Getting Started

# Unified preferences

With all these new features come associated new preference settings. In Lotus Notes 8, the preferences are all in a single location. This makes the management of this feature-rich client simpler, because you can find the preferences for mail, activities, instant messaging, and productivity tools under one location (see the following screenshot):


Preferences
type filter text
Accounts
Activities Server Settings
Basic Notes Client Config
Calendar and To Do
Contacts
Enterprise Management /
Feeds
Home Portal Account
Locations
Log Settings
Mail
Notes Ports
Productivity Tools
Regional Settings
Replication
Sametime
Search
Spell Check
Synchronization
Toolbar
Windows and Themes
Web Browser
Default Fonts...
Client Reconfiguration Wizard...
OK
Cancel

Basic Notes Client Configuration

Startup and shut down

Local application folder: C:\notes\data

☑ Check subscriptions
☐ Scan for unread
☐ Enable scheduled local agents

Empty trash on application close (if not emptied at a timed interval): Always Ask

☐ AutoSave every 15 minutes

Display

Additional options

When text language is unspecified use the form's
Invoke Notes on vCard files
Use inline autocomplete in the address bar
Use Tab to navigate Read-Only Documents
Use Accessibility Keyboard navigation
✓ Enable persistent breakpoints in LotusScript debugger
✓ Enable Icon Popup Help in View

☑ Automatically lock my Notes ID after 90 minutes

In **Preferences**, you can contextually search for preference settings.

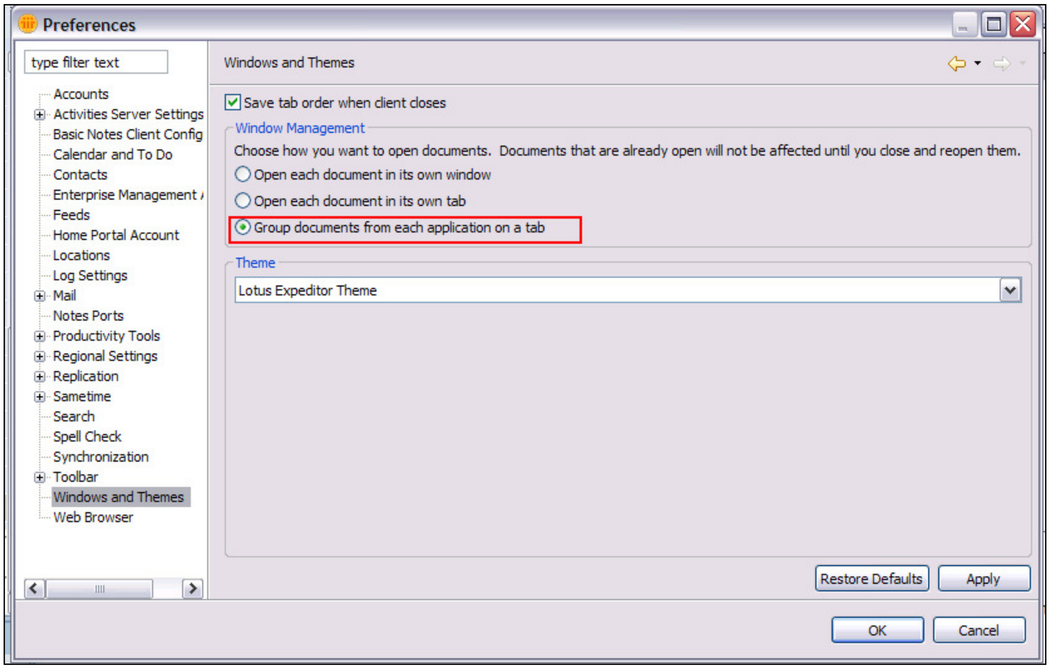
> If you are used to using the preferences in the same manner as the previous releases, you can do so in the Lotus Notes 8 client as well.

# Windows management and tabs

To provide a less cluttered window, Lotus Notes 8 has enhanced the functionality of its windows and tabs.

## Group document tabs

Lotus Notes 8 introduced the ability to group document tabs via the **Group documents from each application on a tab** option, as shown in the following screenshot. With this option enabled, documents or views opened from within one application are grouped under the originating application tab:


Preferences
type filter text
Accounts
Activities Server Settings
Basic Notes Client Config
Calendar and To Do
Contacts
Enterprise Management
Feeds
Home Portal Account
Locations
Log Settings
Mail
Notes Ports
Productivity Tools
Regional Settings
Replication
Sametime
Search
Spell Check
Synchronization
Toolbar
Windows and Themes
Web Browser
Restore Defaults
Apply
OK
Cancel

Windows and Themes

☑ Save tab order when client closes

Window Management

Choose how you want to open documents. Documents that are already open will not be affected until you close and reopen them.

○ Open each document in its own window

○ Open each document in its own tab

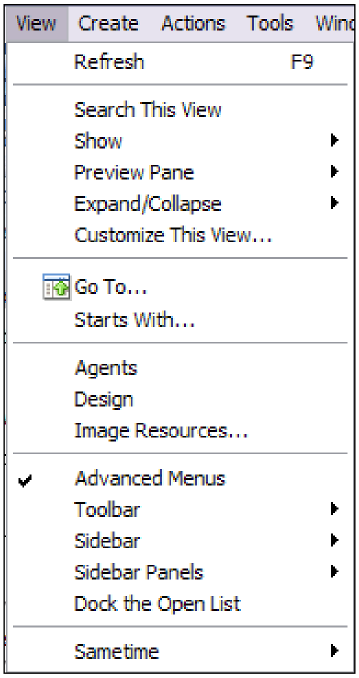
● Group documents from each application on a tab

Theme

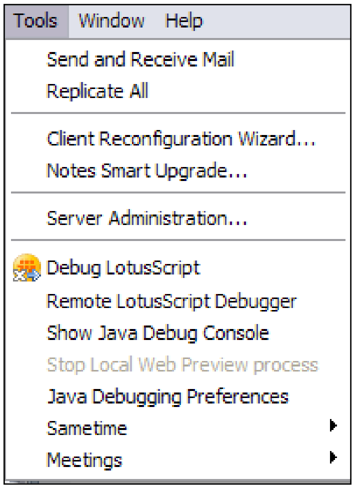
Lotus Expeditor Theme

## Advanced menus

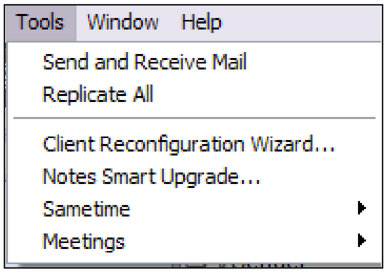
By default, the **Advanced Menus** option is disabled. If you need to use an advanced menu, you will need to enable this option, as shown in the following screenshot. There is an old rule in the software business that states that 80 percent of the users only use 20 percent of the features. If you are not a power user, and would rather not see all of the advanced menu options, just turn them off. In the Lotus Notes 8 client, if you fall into the 80 percent group, you never need to see these options:


View
Create
Actions
Tools
Wind
Refresh
F9
Search This View
Show
Preview Pane
Expand/Collapse
Customize This View...
Go To...
Starts With...
Agents
Design
Image Resources...
✓ Advanced Menus
Toolbar
Sidebar
Sidebar Panels
Dock the Open List
Sametime

We can now see how the menus look with the **Advanced Menus** option enabled and disabled. The following screenshot is with the **Advanced Menus** option enabled:

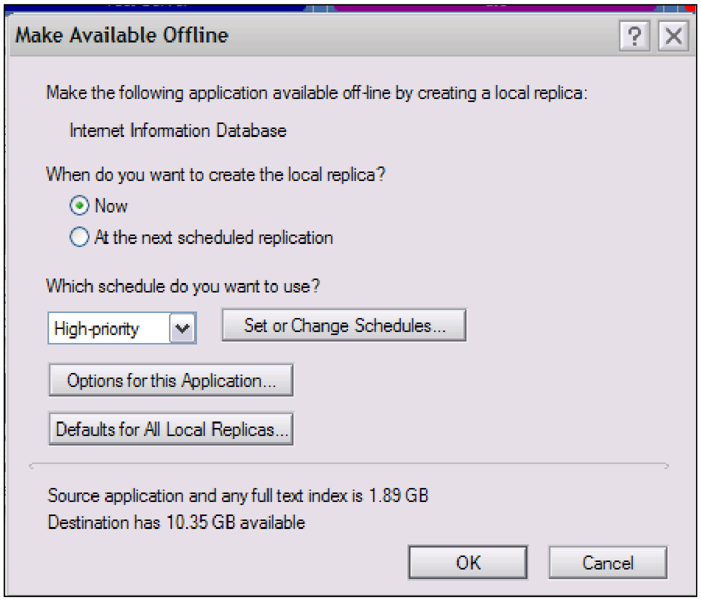

Tools
Window
Help
Send and Receive Mail
Replicate All
Client Reconfiguration Wizard...
Notes Smart Upgrade...
Server Administration...
Debug LotusScript
Remote LotusScript Debugger
Show Java Debug Console
Stop Local Web Preview process
Java Debugging Preferences
Sametime
Meetings

The following screenshot is with the **Advanced Menus** option disabled:


Tools
Window
Help
Send and Receive Mail
Replicate All
Client Reconfiguration Wizard...
Notes Smart Upgrade...
Sametime
Meetings

## Offline applications

Ever wish there were a simple way to create a local replica of an application? That is exactly what the new **Make Available Offline** feature does. Just select this option, enter the necessary information (as shown in the following screenshot), and voila! A local replica of your application is created:


Make Available Offline
?
Set or Change Schedules...
Options for this Application...
Defaults for All Local Replicas...
OK
Cancel

Make the following application available off-line by creating a local replica:

Internet Information Database

When do you want to create the local replica?

● Now
○ At the next scheduled replication

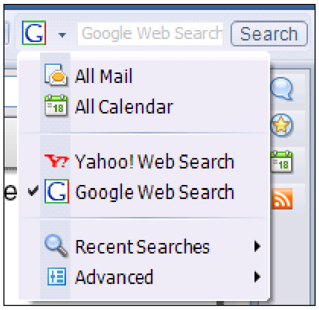
Which schedule do you want to use?

High-priority

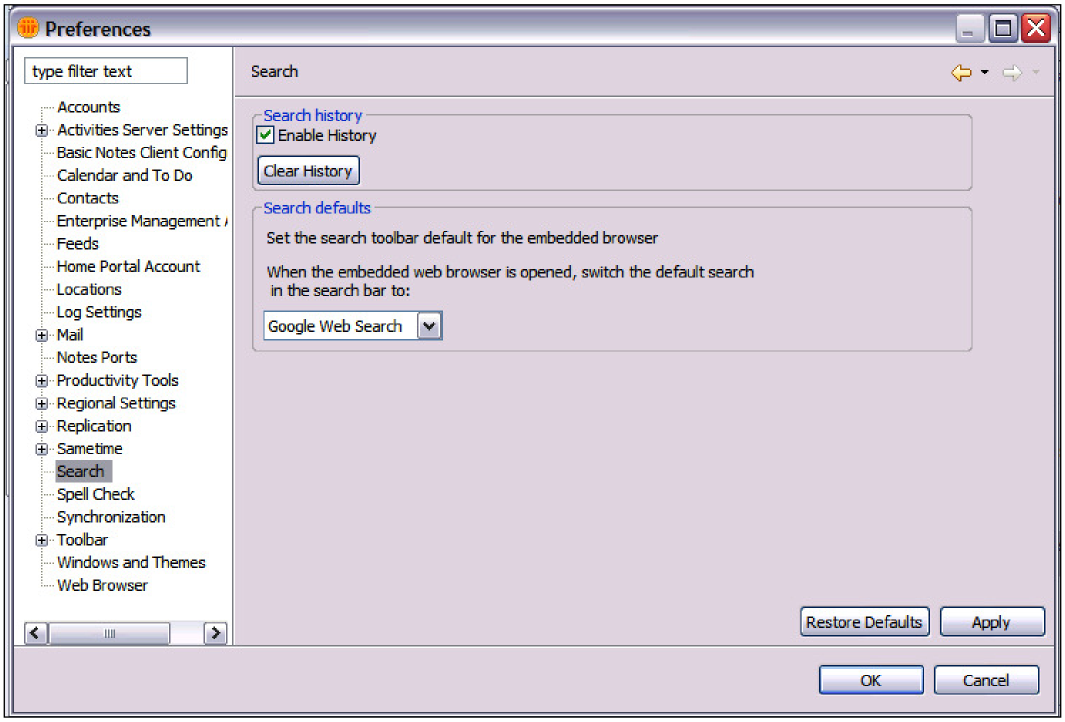
Source application and any full text index is 1.89 GB
Destination has 10.35 GB available

## Search center

The ability to search mail, calendar, contacts, and even the web from a single location is now a feature of the Lotus Notes 8 client. As you can see in the following screenshot, both **Google Web Search** and **Yahoo! Web Search** options can be selected from within the client:


Google Web Search
Search
All Mail
All Calendar
Yahoo! Web Search
Google Web Search
Recent Searches
Advanced

Searches can be saved as well. Using the search preferences, you can disable the search history, clear the search history, and choose which web search you want to set as your default.


Preferences
type filter text
Accounts
Activities Server Settings
Basic Notes Client Config
Calendar and To Do
Contacts
Enterprise Management
Feeds
Home Portal Account
Locations
Log Settings
Mail
Notes Ports
Productivity Tools
Regional Settings
Replication
Sametime
Search
Spell Check
Synchronization
Toolbar
Windows and Themes
Web Browser
Search
Search history
Clear History
Search defaults
Restore Defaults
Apply
OK
Cancel

☑ Enable History

Set the search toolbar default for the embedded browser

When the embedded web browser is opened, switch the default search in the search bar to: Google Web Search

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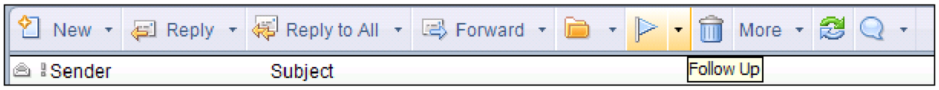
# Mail features

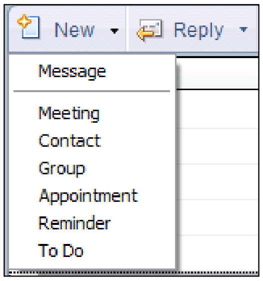
The new mail functionality in the Lotus Notes 8 client was designed with the end user in mind. The enhancements were designed to simplify and update the interface, as well as increase productivity.

## Action bar

The appearance of the Action bar has been modified from previous versions. If the new look confuses you, hover over the icon for a tooltip that describes the icon's functionality, as shown in the following screenshot:

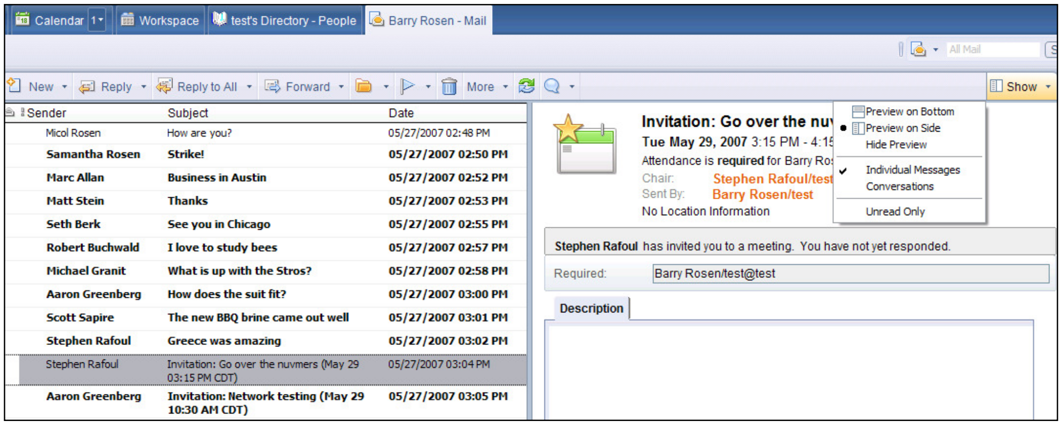

New
Reply
Reply to All
Forward
More
Sender
Subject
Follow Up

For basic functions (such as creating a new memo or replying to a message), you can click once on the **New** icon. In the following screenshot, notice the arrows next to the Action bar items. Clicking on the arrows allows you to choose more options such as **Reply without history** or **Create a new meeting**:


New
Reply
Message
Meeting
Contact
Group
Appointment
Reminder
To Do

## Horizontal and vertical preview panes

You can choose how to display the preview pane. The two options allow you to preview on the right or on the bottom. This fits into the philosophy of being able to customize the users' experience. The following screenshot shows a vertical preview pane:


Calendar
1
Workspace
test's Directory - People
Barry Rosen - Mail
All Mail
New
Reply
Reply to All
Forward
More
Show
Preview on Bottom
● Preview on Side
Hide Preview
✓ Individual Messages
Conversations
Unread Only
Description

| Sender | Subject | Date |
|---|---|---|
| Micol Rosen | How are you? | 05/27/2007 02:48 PM |
| **Samantha Rosen** | **Strike!** | **05/27/2007 02:50 PM** |
| **Marc Allan** | **Business in Austin** | **05/27/2007 02:52 PM** |
| **Matt Stein** | **Thanks** | **05/27/2007 02:53 PM** |
| **Seth Berk** | **See you in Chicago** | **05/27/2007 02:55 PM** |
| **Robert Buchwald** | **I love to study bees** | **05/27/2007 02:57 PM** |
| **Michael Granit** | **What is up with the Stros?** | **05/27/2007 02:58 PM** |
| **Aaron Greenberg** | **How does the suit fit?** | **05/27/2007 03:00 PM** |
| **Scott Sapire** | **The new BBQ brine came out well** | **05/27/2007 03:01 PM** |
| **Stephen Rafoul** | **Greece was amazing** | **05/27/2007 03:02 PM** |
| Stephen Rafoul | Invitation: Go over the nuvmers (May 29 03:15 PM CDT) | 05/27/2007 03:04 PM |
| **Aaron Greenberg** | **Invitation: Network testing (May 29 10:30 AM CDT)** | **05/27/2007 03:05 PM** |

**Invitation: Go over the nu**
**Tue May 29, 2007** 3:15 PM - 4:15
Attendance is **required** for Barry Ro
Chair: Stephen Rafoul/test
Sent By: Barry Rosen/test
No Location Information

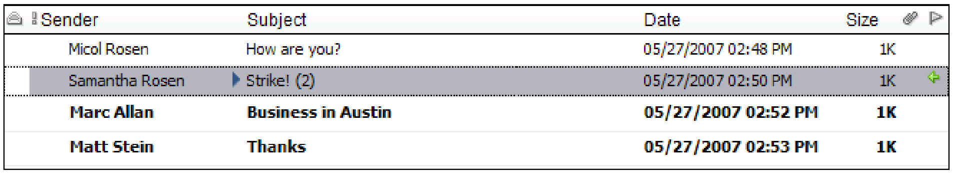
**Stephen Rafoul** has invited you to a meeting. You have not yet responded.

Required: Barry Rosen/test@test

If you choose to display the preview pane on the right, the text of your messages will resize so that they fit in the preview pane. This allows you to view the same information regardless of the preview pane selection. The other option is to remove the preview pane altogether.

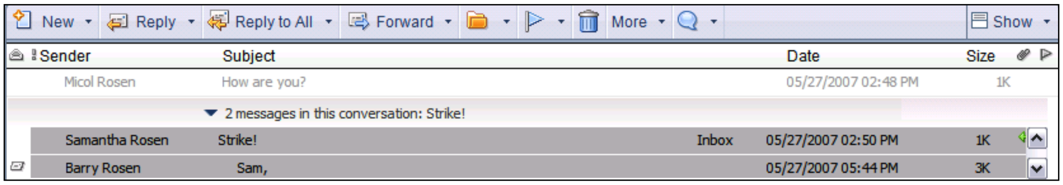
## Mail threads

Lotus Notes 7 allowed you to view the mail thread in the header of the e-mail. Lotus Notes 8 builds upon this mail thread functionality. There are now two new options for mail threads when viewing directly from the inbox. By default, when you highlight a message in the inbox, it will display a twisty next to the subject if the message is in a thread:



| Sender | Subject | Date | Size |
|---|---|---|---|
| Micol Rosen | How are you? | 05/27/2007 02:48 PM | 1K |
| Samantha Rosen | ▸ Strike! (2) | 05/27/2007 02:50 PM | 1K |
| **Marc Allan** | **Business in Austin** | **05/27/2007 02:52 PM** | **1K** |
| **Matt Stein** | **Thanks** | **05/27/2007 02:53 PM** | **1K** |

To see the contents of the entire mail thread, click this twisty, as shown in the following screenshot:


New
Reply
Reply to All
Forward
More
Show

| Sender | Subject | | Date | Size |
|---|---|---|---|---|
| Micol Rosen | How are you? | | 05/27/2007 02:48 PM | 1K |
| | ▾ 2 messages in this conversation: Strike! | | | |
| Samantha Rosen | Strike! | Inbox | 05/27/2007 02:50 PM | 1K |
| Barry Rosen | Sam, | | 05/27/2007 05:44 PM | 3K |

In most cases, replies to an e-mail contain the original subject line preceded by **Re:**. The mail thread functionality in Lotus Notes 8 displays the first line of the e-mail rather than the subject. This allows the user to scan the thread for useful information without having to open a memo to see the contents.

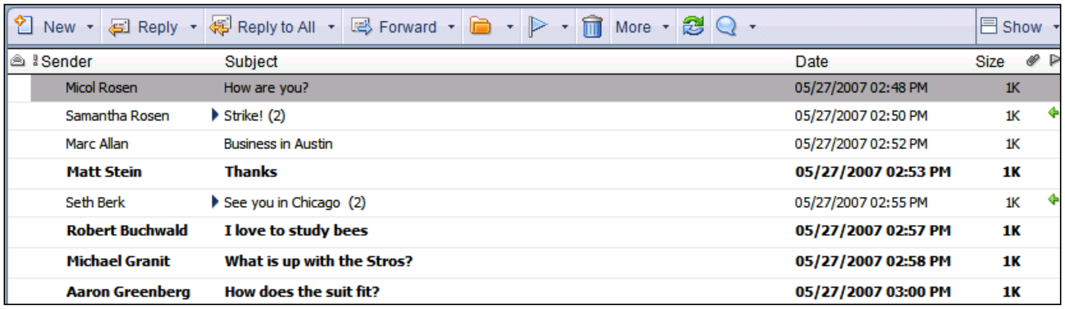
The mail thread will display all messages in a thread, regardless of the location of the actual message. If you move a message in the thread to any folder other than the inbox, the thread will display the name of the folder containing the message.

By making the mail threads resilient, the Lotus Notes 8 client will still display messages in the thread even if one of them is deleted. It also displays messages that originated outside your Lotus Domino environment. If someone sends messages to you from the Internet, those messages are displayed in the thread.

> The mail file must be hosted on a Lotus Domino 8 server in order for the mail threads to be resilient.

## Conversations view

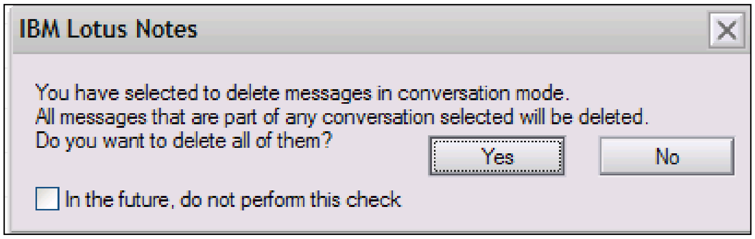
Lotus Notes 8 allows you to display your messages in a conversations view. This compacts e-mails to one message per conversation. This view provides a less cluttered inbox. The e-mails in a topic will be grouped together by the latest entry in your inbox. To switch between the conversations view and the individual messages view, use the **Display** menu, as shown in the following screenshot:



| Sender | Subject | Date | Size |
|---|---|---|---|
| Micol Rosen | How are you? | 05/27/2007 02:48 PM | 1K |
| Samantha Rosen | ▸ Strike! (2) | 05/27/2007 02:50 PM | 1K |
| Marc Allan | Business in Austin | 05/27/2007 02:52 PM | 1K |
| **Matt Stein** | **Thanks** | **05/27/2007 02:53 PM** | **1K** |
| Seth Berk | ▸ See you in Chicago (2) | 05/27/2007 02:55 PM | 1K |
| **Robert Buchwald** | **I love to study bees** | **05/27/2007 02:57 PM** | **1K** |
| **Michael Granit** | **What is up with the Stros?** | **05/27/2007 02:58 PM** | **1K** |
| **Aaron Greenberg** | **How does the suit fit?** | **05/27/2007 03:00 PM** | **1K** |

In the conversations view, you will see the number of e-mails in the conversation in parentheses at the end of the subject. Clicking on the twisty will display the messages in the conversation, just as it does in the default mail view.

Another time-saving feature in this view is the ability to perform actions on the entire conversation. These actions include filing into a folder or deleting the entire conversation. To prevent accidental deletion of an entire conversation, a dialog box will appear when someone deletes a conversation, as in the following screenshot:


IBM Lotus Notes

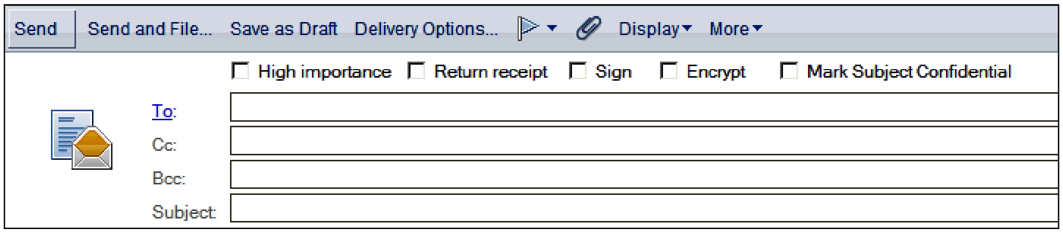
You have selected to delete messages in conversation mode.
All messages that are part of any conversation selected will be deleted.
Do you want to delete all of them?

Yes
No
☐ In the future, do not perform this check

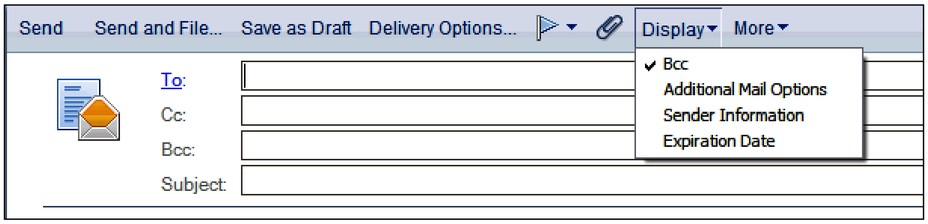
The dialog box in the preceding screenshot can be suppressed by checking the **In the future, do not perform this check feature** checkbox.

## Mail header options

If you only want to display the header options that are pertinent to you, now you can do so. Starting in Lotus Notes 8 you can choose what Mail header options you want to be displayed in your mail file. These options are seen in the following screenshot:


Send
Send and File...
Save as Draft
Delivery Options...
Display
More
☐ High importance
☐ Return receipt
☐ Sign
☐ Encrypt
☐ Mark Subject Confidential
To:
Cc:
Bcc:
Subject:

The following screenshot displays all of the controls to limit the header options, click on the **Display** button in the memo. This will allow you to choose what options to limit. You can hide everything except the **To**, **Cc**, and **Subject** fields (see the following screenshot):

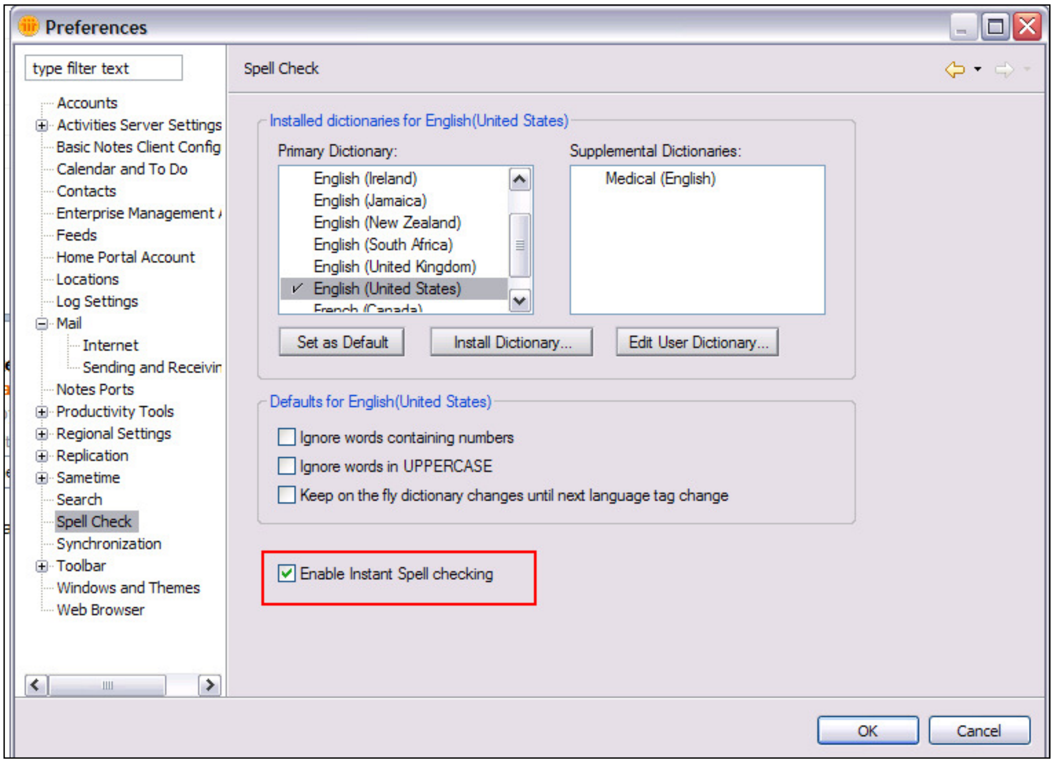

Send
Send and File...
Save as Draft
Delivery Options...
Display
More
✓ Bcc
Additional Mail Options
Sender Information
Expiration Date
To:
Cc:
Bcc:
Subject:

Sending confidential messages is easier in Lotus Notes 8. There is a checkbox named **Mark Subject Confidential**. When you check this option, the text ***Confidential** is added to the beginning of your subject.

The Multilevel undo functionality for text editing in Lotus Notes 8 is now up to 50 levels. This applies to any text field in Lotus Notes 8, not just e-mail text fields.

## Inline spell checking

Inline spell checking can now be enabled. When this is enabled, a red squiggle will appear underneath any misspelled word (or more precisely a word that does not appear in the dictionary) in a rich-text field. This option can be enabled in the **Preferences** interface, as shown in the following screenshot:


Preferences
type filter text
Accounts
Activities Server Settings
Basic Notes Client Config
Calendar and To Do
Contacts
Enterprise Management
Feeds
Home Portal Account
Locations
Log Settings
Mail
Internet
Sending and Receivin
Notes Ports
Productivity Tools
Regional Settings
Replication
Sametime
Search
Spell Check
Synchronization
Toolbar
Windows and Themes
Web Browser
Spell Check
Installed dictionaries for English(United States)
Primary Dictionary:
English (Ireland)
English (Jamaica)
English (New Zealand)
English (South Africa)
English (United Kingdom)
English (United States)
French (Canada)
Supplemental Dictionaries:
Medical (English)
Set as Default
Install Dictionary...
Edit User Dictionary...
Defaults for English(United States)
OK
Cancel

✓ English (United States)

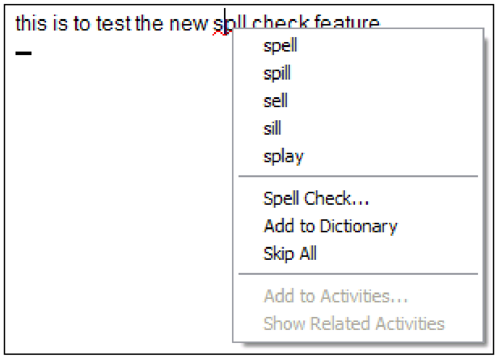
☐ Ignore words containing numbers

☐ Ignore words in UPPERCASE

☐ Keep on the fly dictionary changes until next language tag change

☑ Enable Instant Spell checking

Right-clicking the word with the red squiggle will display a list of suggested spellings (see the following screenshot). Clicking on one of the suggested spellings will replace a misspelled word with this word. You can also add the word to the dictionary. This will prevent the word from being marked as misspelled in the future:

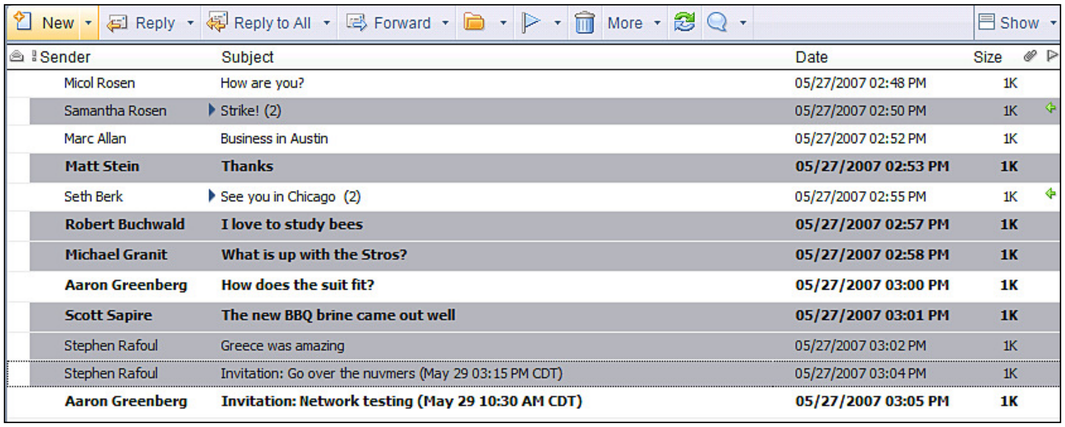


this is to test the new spll check feature

When inline spell checking is enabled, it is available in any Lotus Notes document.

## Document selection

Lotus Notes 8 has changed the way in which documents are selected. In previous Lotus Notes releases, a check mark was placed next to a document's name. Lotus Notes 8 now supports common operating system commands and mouse clicks. To select multiple contiguous documents, hold down the *Shift* key and select the documents. To select multiple individual documents, hold down the *Ctrl* key and click on the document. This will highlight the selected documents and allow you to work with them in a group.

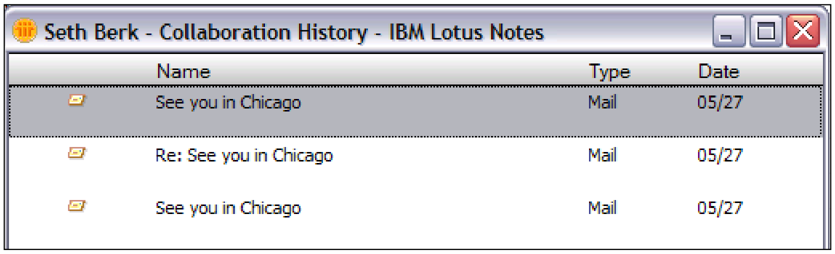


| Sender | Subject | Date | Size |
|---|---|---|---|
| Micol Rosen | How are you? | 05/27/2007 02:48 PM | 1K |
| Samantha Rosen | Strike! (2) | 05/27/2007 02:50 PM | 1K |
| Marc Allan | Business in Austin | 05/27/2007 02:52 PM | 1K |
| **Matt Stein** | **Thanks** | **05/27/2007 02:53 PM** | **1K** |
| Seth Berk | See you in Chicago (2) | 05/27/2007 02:55 PM | 1K |
| **Robert Buchwald** | **I love to study bees** | **05/27/2007 02:57 PM** | **1K** |
| **Michael Granit** | **What is up with the Stros?** | **05/27/2007 02:58 PM** | **1K** |
| **Aaron Greenberg** | **How does the suit fit?** | **05/27/2007 03:00 PM** | **1K** |
| **Scott Sapire** | **The new BBQ brine came out well** | **05/27/2007 03:01 PM** | **1K** |
| Stephen Rafoul | Greece was amazing | 05/27/2007 03:02 PM | 1K |
| Stephen Rafoul | Invitation: Go over the nuvmers (May 29 03:15 PM CDT) | 05/27/2007 03:04 PM | 1K |
| **Aaron Greenberg** | **Invitation: Network testing (May 29 10:30 AM CDT)** | **05/27/2007 03:05 PM** | **1K** |

Common operating system commands and mouse clicks work in the **Calendar** and **Contact** views as well.

## Recent collaborations

Have you ever wanted to view your conversations with a specific person, from multiple tools such as instant messaging, e-mail, activities, and calendaring? Lotus Notes 8 contains a right-click option that will allow you to view all of your dealings with that person. A window titled **Collaboration History** will display a list from which you can select and open any recent collaboration.

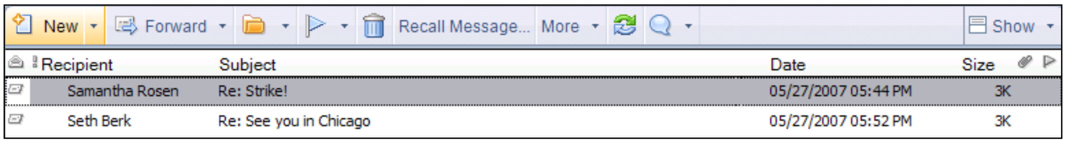


| Name | Type | Date |
|---|---|---|
| See you in Chicago | Mail | 05/27 |
| Re: See you in Chicago | Mail | 05/27 |
| See you in Chicago | Mail | 05/27 |

The right-click option to view recent collaborations will work in the **Calendar** and **Contact** views as well.

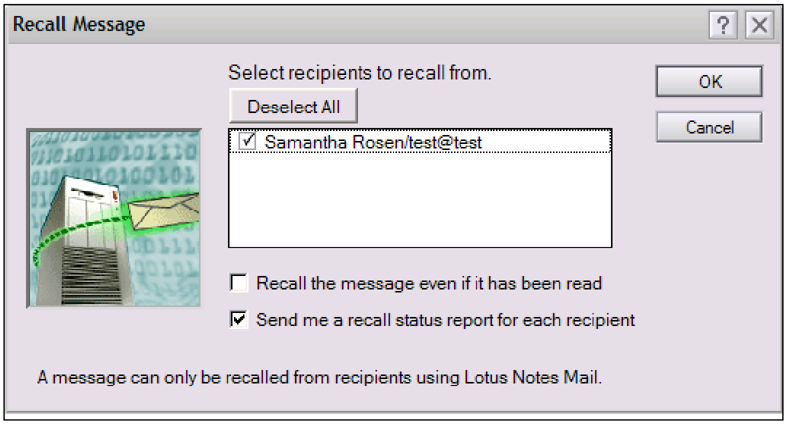
## Message recall

Sometimes users accidentally send a message before finishing it, or send it to unintended recipients. Message recall can now help you in these sticky situations. To recall the message, just select it in your **Sent** view and click on the **Recall Message** button. You will see a view as shown in the following screenshot:



| Recipient | Subject | Date | Size |
|---|---|---|---|
| Samantha Rosen | Re: Strike! | 05/27/2007 05:44 PM | 3K |
| Seth Berk | Re: See you in Chicago | 05/27/2007 05:52 PM | 3K |

After you click on the **Recall Message** button, a dialog box will appear with options (see the following screenshot). You can select which recipients from whom to recall the message. You also have the option to recall a message even if it was already read:



Select recipients to recall from.

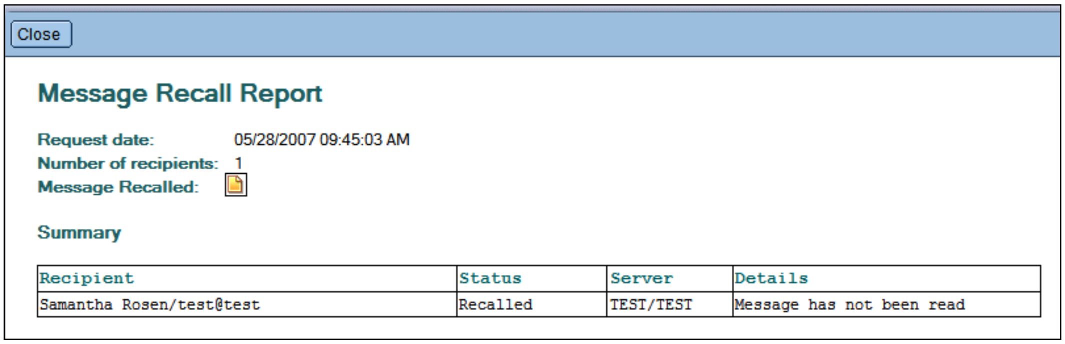
☑ Samantha Rosen/test@test

☐ Recall the message even if it has been read

☑ Send me a recall status report for each recipient

A message can only be recalled from recipients using Lotus Notes Mail.

If you would like to receive a recall status report, check the **Send me a recall status report for each recipient** checkbox:



Message Recall Report

Request date: 05/28/2007 09:45:03 AM
Number of recipients: 1
Message Recalled:

Summary

| Recipient | Status | Server | Details |
|---|---|---|---|
| Samantha Rosen/test@test | Recalled | TEST/TEST | Message has not been read |

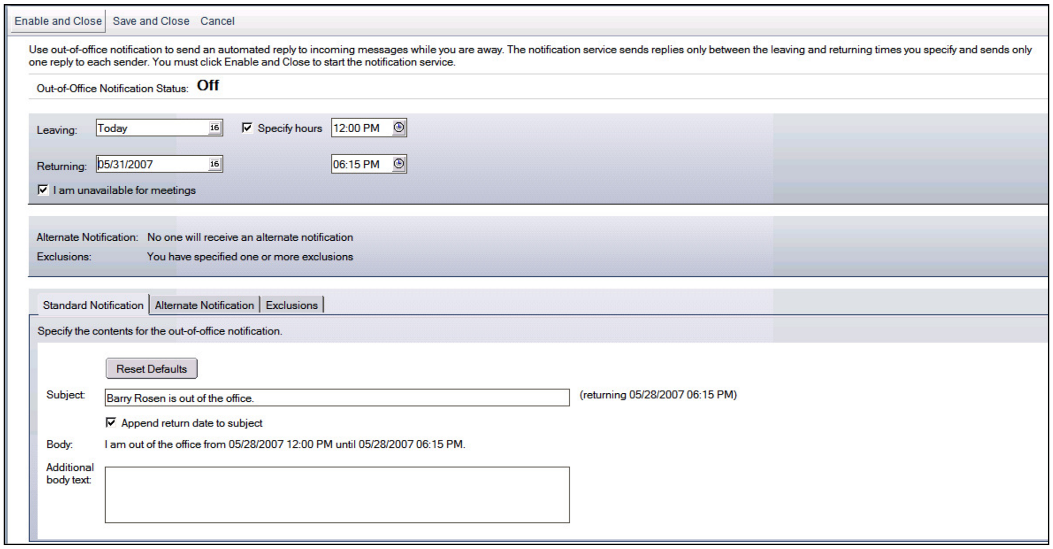
You will only be able to use this feature from the Sent view of your mail file. The sent message must be available for the information about the recipients to be used to recall the message. If the message was not saved when sent, you cannot recall it.

> Message recall will only work if the user is on Lotus Domino 8 server and the feature is enabled. The user must also be configured for use in a mail policy.

## Improved Out-of-Office functionality

The Out-of-Office functionality has been enhanced in the Lotus Notes client, as well as on the server. The settings are now more granular, allowing you to set the hour that you are leaving and returning. You can also choose to only have the Out-of-Office message sent in reply to the first message that someone sends or in reply to all messages that they send.

Manually disabling the Out-of-Office feature is a thing of the past. The feature disables itself when the Out-of-Office time expires. This saves time by requiring fewer administrative tasks upon your return. A person who is delegated to your calendar cannot enable and disable the Out-of-Office for you. These settings are shown in the following screenshot:



Use out-of-office notification to send an automated reply to incoming messages while you are away. The notification service sends replies only between the leaving and returning times you specify and sends only one reply to each sender. You must click Enable and Close to start the notification service.

Out-of-Office Notification Status: **Off**

Leaving: Today ☑ Specify hours 12:00 PM

Returning: 05/31/2007 06:15 PM

☑ I am unavailable for meetings

Alternate Notification: No one will receive an alternate notification

Exclusions: You have specified one or more exclusions

Specify the contents for the out-of-office notification.

Subject: Barry Rosen is out of the office. (returning 05/28/2007 06:15 PM)

☑ Append return date to subject

Body: I am out of the office from 05/28/2007 12:00 PM until 05/28/2007 06:15 PM.

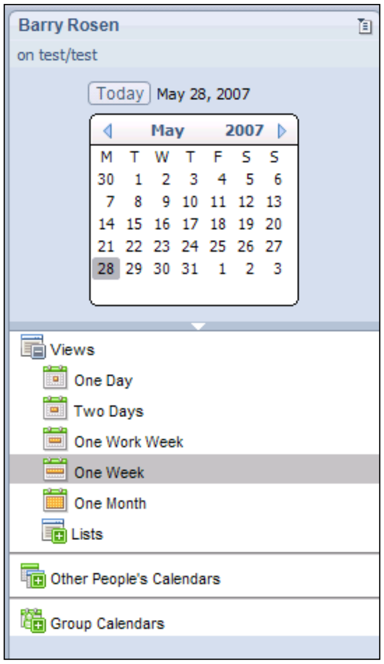
Additional body text:

## Calendar features

The **Calendar** view has been updated in Lotus Notes 8.

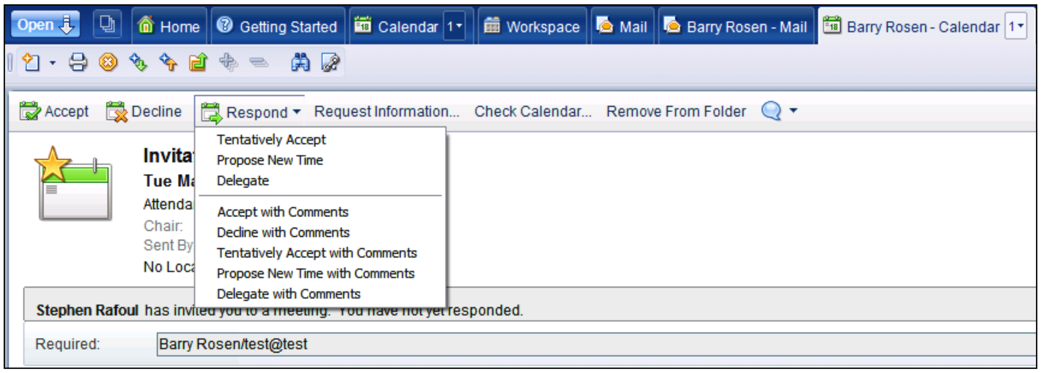
## View navigation

To keep the view navigation consistent, the calendar can be navigated from the **Views** navigator pane on the left-hand side of the Lotus Notes 8 interface.


Barry Rosen
on test/test
Today
May 28, 2007
May 2007
M T W T F S S
30 1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 31 1 2 3
Views
One Day
Two Days
One Work Week
One Week
One Month
Lists
Other People's Calendars
Group Calendars

## Action bar

As in the Mail view, the Action bar is designed to offer single-click functionality. More options can be accessed with the **Respond** button, as shown in the following screenshot:


Open
Home
Getting Started
Calendar
Workspace
Mail
Barry Rosen - Mail
Barry Rosen - Calendar
Accept
Decline
Respond
Request Information...
Check Calendar...
Remove From Folder
Tentatively Accept
Propose New Time
Delegate
Accept with Comments
Decline with Comments
Tentatively Accept with Comments
Propose New Time with Comments
Delegate with Comments
Invita
Tue Ma
Attenda
Chair:
Sent By
No Loca

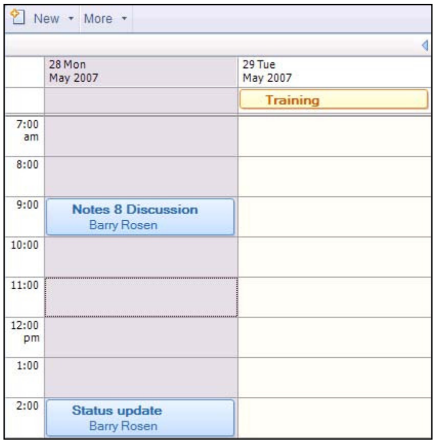
**Stephen Rafoul** has invited you to a meeting. You have not yet responded.

Required: Barry Rosen/test@test

www.allitebooks.com

## All-day events

Now, all-day events are displayed for the entire day (see the following screenshot). To save you the bother of scrolling up, the title of the all-day event will appear at the top of the page regardless of what time of the day you are viewing the calendar. Anniversaries behave in the same manner as all-day events:


New
More
28 Mon May 2007
29 Tue May 2007
7:00 am
8:00
9:00
10:00
11:00
12:00 pm
1:00
2:00

Training

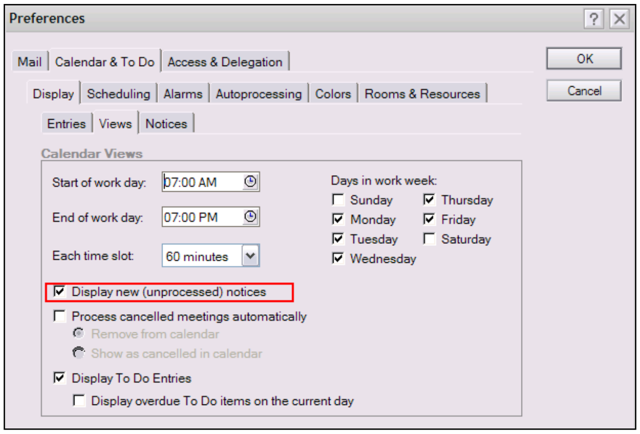
Notes 8 Discussion
Barry Rosen

Status update
Barry Rosen

## Managing new invitations from your Calendar view

A new feature in Lotus Notes 8 is the ability to display unprocessed events on your calendar, next to processed events. (Unprocessed events are calendar events that have been received, but not yet accepted or declined.) This allows you to see your calendar with all events before deciding to accept or decline.

By default, this feature is not enabled. You must enable this feature in your calendar preferences:


Preferences
Mail
Calendar & To Do
Access & Delegation
OK
Cancel
Display
Scheduling
Alarms
Autoprocessing
Colors
Rooms & Resources
Entries
Views
Notices
Calendar Views

Start of work day: 07:00 AM

End of work day: 07:00 PM

Each time slot: 60 minutes

Days in work week:
☐ Sunday
☑ Monday
☑ Tuesday
☑ Wednesday
☑ Thursday
☑ Friday
☐ Saturday

☑ Display new (unprocessed) notices

☐ Process cancelled meetings automatically
● Remove from calendar
○ Show as cancelled in calendar

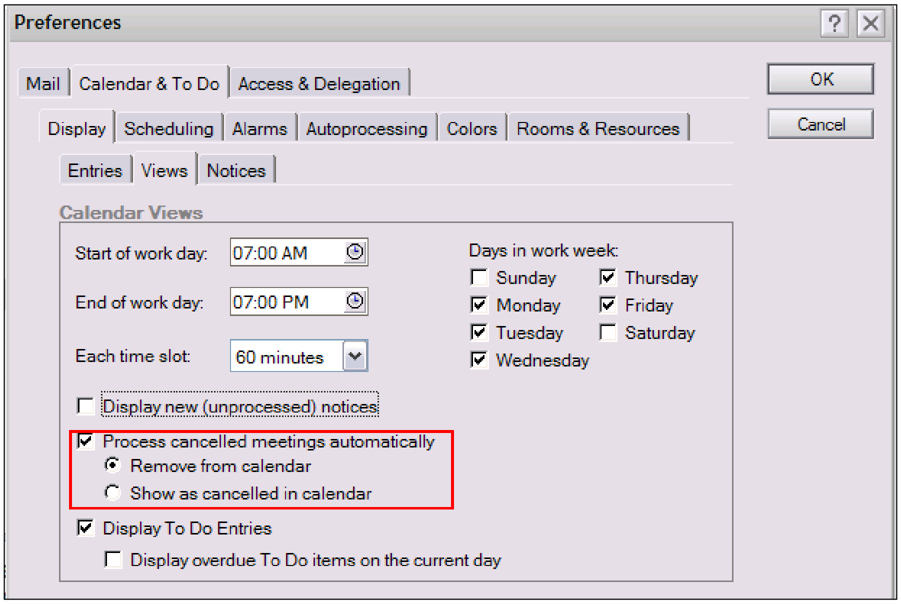
☑ Display To Do Entries
☐ Display overdue To Do items on the current day

When enabled, your unprocessed items will appear in a different color from the accepted items. They will appear in white with an envelope icon in the upper right-hand corner. Accepted invitations appear in blue with a person icon in the upper right-hand corner.

## Showing cancelled invitations in your calendar

Now, you can choose to keep cancelled invitations in your calendar. (In previous releases, you could auto-process cancellations so as to have them removed from your calendar.) The benefit of this new functionality is to keep a record of cancelled meetings etc in your calendar, rather than just a cancellation notice in your inbox.

This can be enabled in your calendar preferences.


Preferences
?
Mail
Calendar & To Do
Access & Delegation
Display
Scheduling
Alarms
Autoprocessing
Colors
Rooms & Resources
Entries
Views
Notices
OK
Cancel

Calendar Views

Start of work day: 07:00 AM

End of work day: 07:00 PM

Each time slot: 60 minutes

Days in work week:
☐ Sunday
☑ Monday
☑ Tuesday
☑ Wednesday
☑ Thursday
☑ Friday
☐ Saturday

☐ Display new (unprocessed) notices

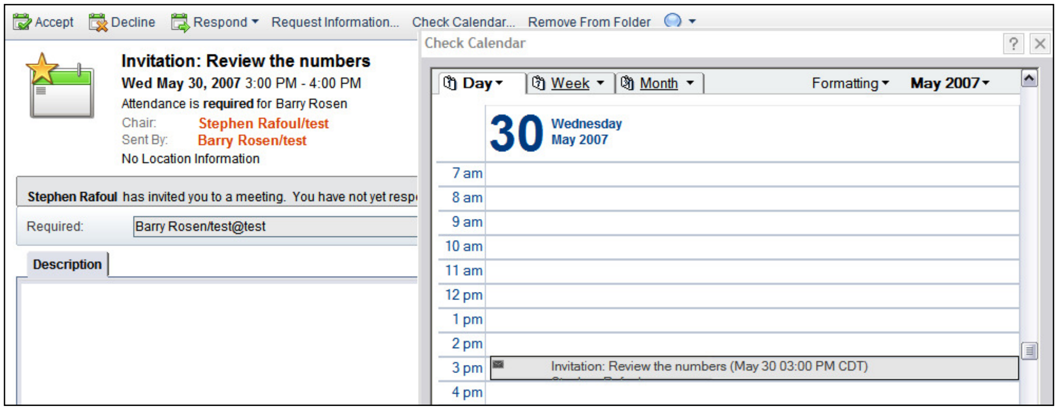
☑ Process cancelled meetings automatically
  ● Remove from calendar
  ○ Show as cancelled in calendar

☑ Display To Do Entries
  ☐ Display overdue To Do items on the current day

A cancelled meeting will be displayed in brown without an icon in your calendar. When you open the meeting from your calendar, it will be removed from this view.

# Checking schedule

You can now check your schedule when you are creating a new meeting by clicking the **Check Calendar** button. This will bring up a window with the **Day** view showing how the new meeting will fit into the schedule. (An alternative method to check your schedule is to use the sidebar.)


Accept
Decline
Respond
Request Information...
Check Calendar...
Remove From Folder
Check Calendar
Day
Week
Month
Formatting
May 2007
30
Wednesday
May 2007
7 am
8 am
9 am
10 am
11 am
12 pm
1 pm
2 pm
3 pm
4 pm
Description

**Invitation: Review the numbers**
**Wed May 30, 2007** 3:00 PM - 4:00 PM
Attendance is **required** for Barry Rosen
Chair: Stephen Rafoul/test
Sent By: Barry Rosen/test
No Location Information

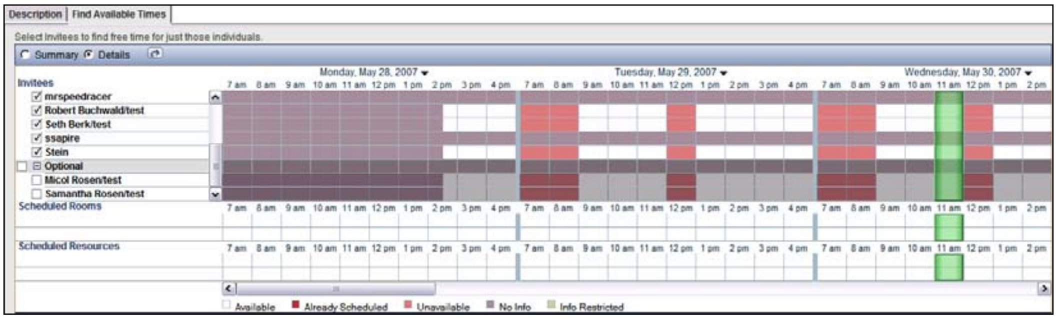
**Stephen Rafoul** has invited you to a meeting. You have not yet resp

Required: Barry Rosen/test@test

Invitation: Review the numbers (May 30 03:00 PM CDT)

# Locating free time for a subset of invitees

When inviting a large number of people to a meeting, it is often difficult to determine when everyone will be available. Now, you can select certain invitees and get free time information for them. For example, you can search only the required attendees:


Description
Find Available Times
Summary
Details
Monday, May 28, 2007
Tuesday, May 29, 2007
Wednesday, May 30, 2007
7 am
8 am
9 am
10 am
11 am
12 pm
1 pm
2 pm
3 pm
4 pm
Invitees
Scheduled Rooms
Scheduled Resources
Available
Already Scheduled
Unavailable
No Info
Info Restricted

Select invitees to find free time for just those individuals.

○ Summary ● Details

Invitees
☑ mrspeedracer
☑ Robert Buchwald/test
☑ Seth Berk/test
☑ ssapire
☑ Stein
☐ ⊟ Optional
☐ Micol Rosen/test
☐ Samantha Rosen/test

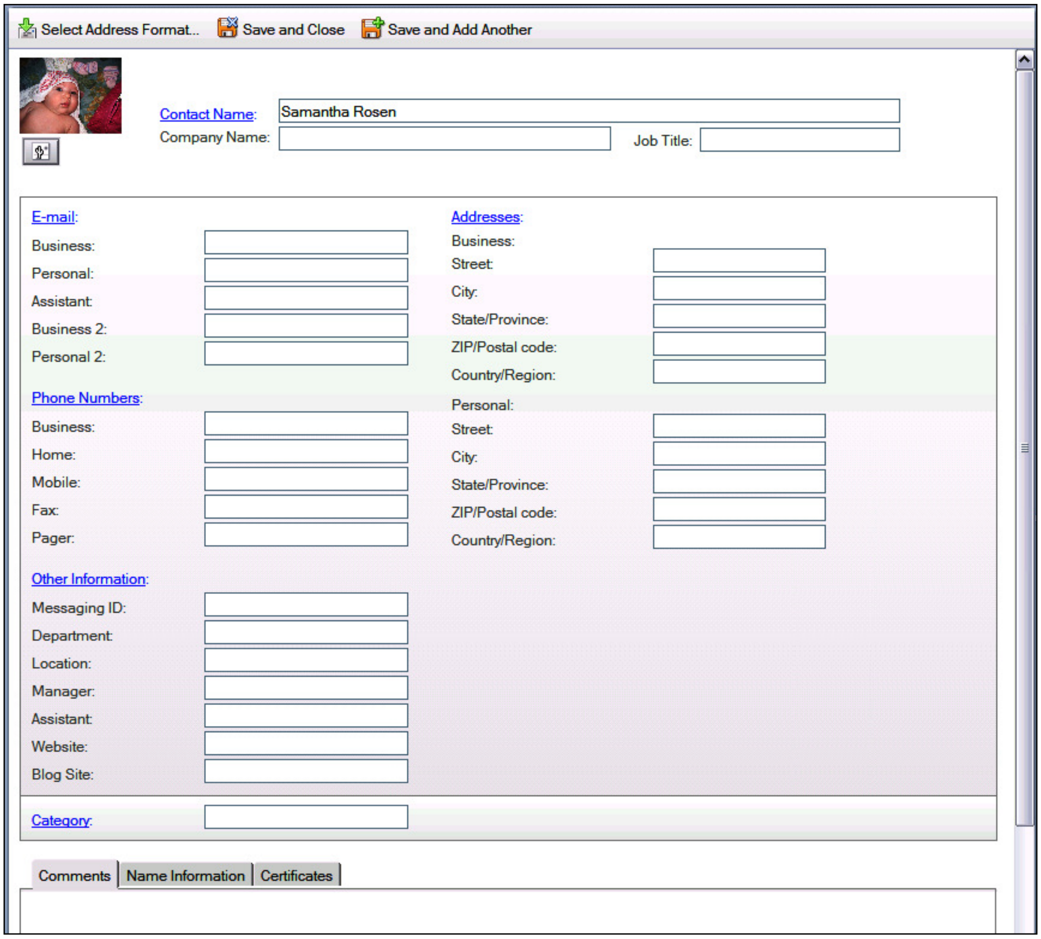
# Contacts

In Lotus Notes 8, the **Contacts** user interface has been changed significantly. In particular, new features have been introduced. The application file that contains all local contacts has been renamed to **Contacts** instead of **Name and Address Book**.

## Contact form

The newly renamed Contacts application has additional forms, which add flexibility to how you store your contacts.

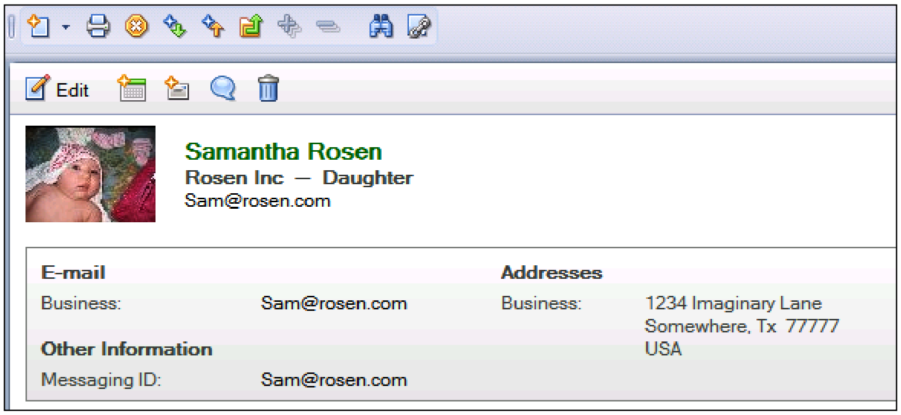
There are more fields available when filling out the Contact form. You can see these new fields when placing a contact form in edit mode as in the following screenshot:



Contact Name: Samantha Rosen

Select Address Format...
Save and Close
Save and Add Another
Contact Name:
Company Name:
Job Title:
E-mail:
Business:
Personal:
Assistant:
Business 2:
Personal 2:
Phone Numbers:
Business:
Home:
Mobile:
Fax:
Pager:
Other Information:
Messaging ID:
Department:
Location:
Manager:
Assistant:
Website:
Blog Site:
Addresses:
Business:
Street:
City:
State/Province:
ZIP/Postal code:
Country/Region:
Personal:
Street:
City:
State/Province:
ZIP/Postal code:
Country/Region:
Category:
Comments
Name Information
Certificates

The preceding screenshot shows the form in edit mode. The following screenshot shows a saved contact. If the field is not filled in, it will not be displayed when viewing the saved contact:



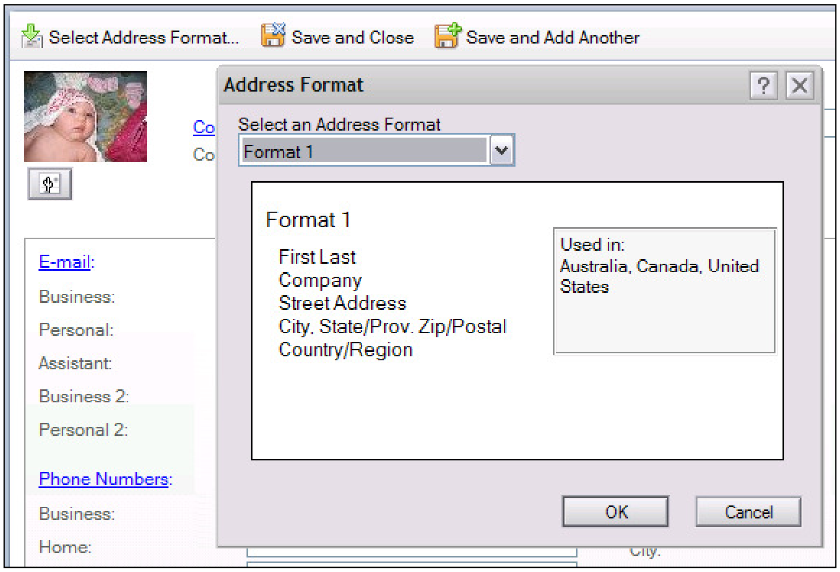
**Samantha Rosen**
**Rosen Inc — Daughter**
Sam@rosen.com

**E-mail**
Business: Sam@rosen.com

**Addresses**
Business: 1234 Imaginary Lane
Somewhere, Tx 77777
USA

**Other Information**
Messaging ID: Sam@rosen.com

There are several formats in which the contact can be displayed, and you can choose which format is most appropriate:


Select Address Format...
Save and Close
Save and Add Another
Co
Co
E-mail:
Business:
Personal:
Assistant:
Business 2:
Personal 2:
Phone Numbers:
Business:
Home:
City:
OK
Cancel

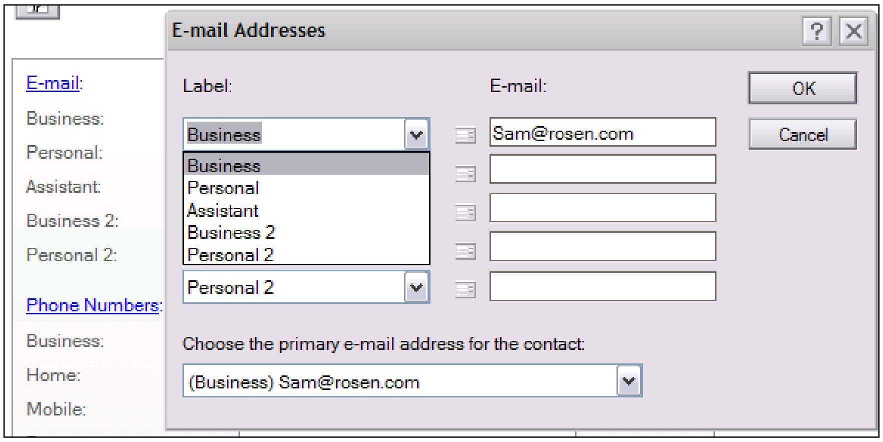
Address Format

Select an Address Format: Format 1

Format 1
First Last
Company
Street Address
City, State/Prov. Zip/Postal
Country/Region

Used in:
Australia, Canada, United States

To make the forms more customizable, you can now change the titles of the fields to reflect your individual needs:


E-mail Addresses
?
E-mail:
Business:
Personal:
Assistant:
Business 2:
Personal 2:
Phone Numbers:
Business:
Home:
Mobile:
OK
Cancel
Business
Personal
Assistant
Business 2
Personal 2

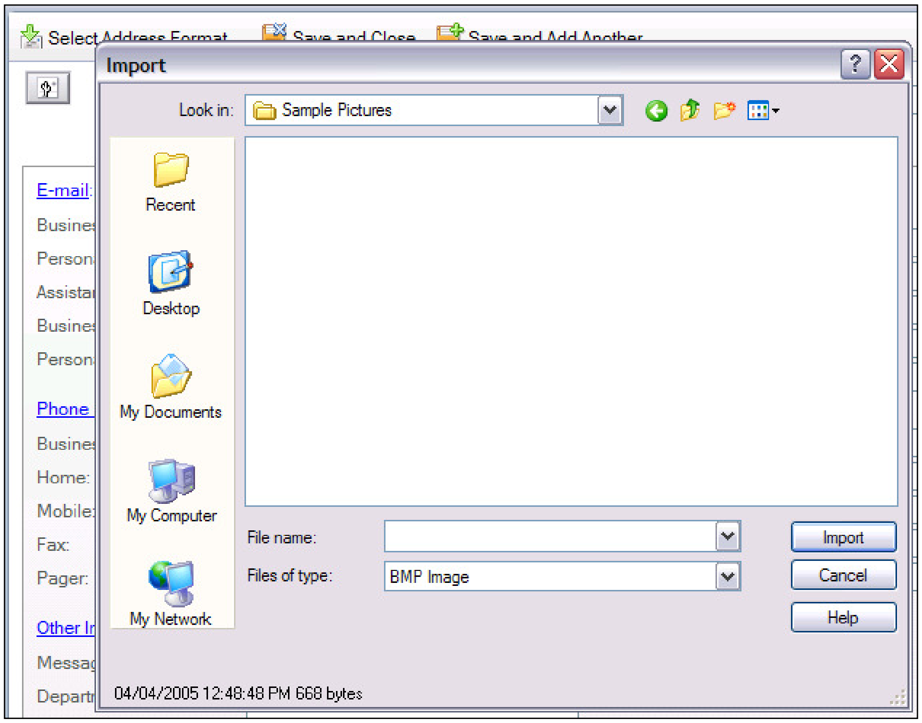
Label: Business

E-mail: Sam@rosen.com

Personal 2

Choose the primary e-mail address for the contact: (Business) Sam@rosen.com

You can now store a photograph of your contact in the record by clicking on the **Insert Contact Photo** button in the top-left corner of the Contact form:


Select Address Format
Save and Close
Save and Add Another
Import
?
E-mail:
Busine
Person
Assista
Busine
Person
Phone
Busine
Home:
Mobile:
Fax:
Pager:
Other I
Messag
Depart
Recent
Desktop
My Documents
My Computer
My Network
File name:
Import
Cancel
Help

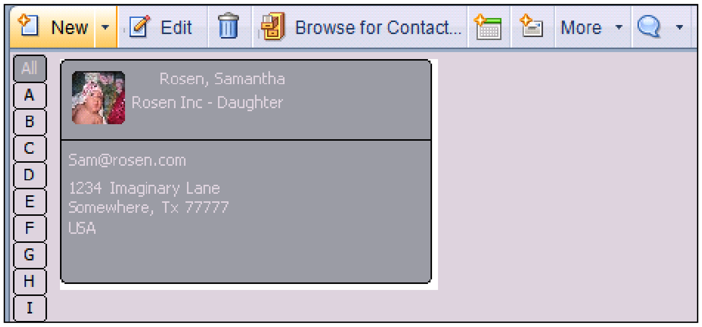
Look in: Sample Pictures

Files of type: BMP Image

04/04/2005 12:48:48 PM 668 bytes

## Business Card view

A new view, called Business Card, has been added to the Contacts application. This displays all your contacts in a business card format, making it easier to find contacts at a glance. To open the contact from this view, simply double-click it. This view is shown in the following screenshot:


New
Edit
Browse for Contact...
More
All
A
B
C
D
E
F
G
H
I

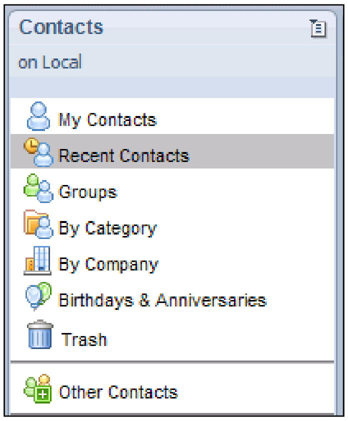
Rosen, Samantha
Rosen Inc - Daughter

Sam@rosen.com

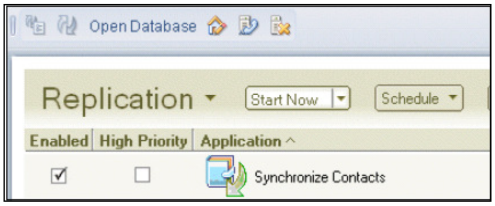
1234 Imaginary Lane
Somewhere, Tx 77777
USA

## Recent Contacts view

Another new view in the Contacts application is the **Recent Contacts** view. This view will display all of the people with whom you have recently collaborated. This makes it easier for you to address frequently used contacts. It is from this view that the client gets the addresses that populate the pull-down menu that appears when you send a memo or an invitation. This allows you to pull up any e-mail address that you have sent messages to. You can also pull up any addresses that have copied you, and add them to an e-mail that you are addressing:


Contacts
on Local
My Contacts
Recent Contacts
Groups
By Category
By Company
Birthdays & Anniversaries
Trash
Other Contacts

From the **Replication** (see the following screenshot) page you can choose to have your contacts synchronized. This will check for changes, such as phone number or address changes from the server directory and synchronize them with your local contacts database:



# Lotus Notes 8.5

Starting in Lotus Notes 8.5, Lotus Notes is supported on the Macintosh workstation.

While most of the enhancements in Lotus Notes 8.5 are on the server side, this section will examine the new features in the Lotus Notes 8.5 client. The five areas that will be covered are as follows:

- User interface enhancements
- Mail features
- Calendar features
- Contacts
- Key software changes

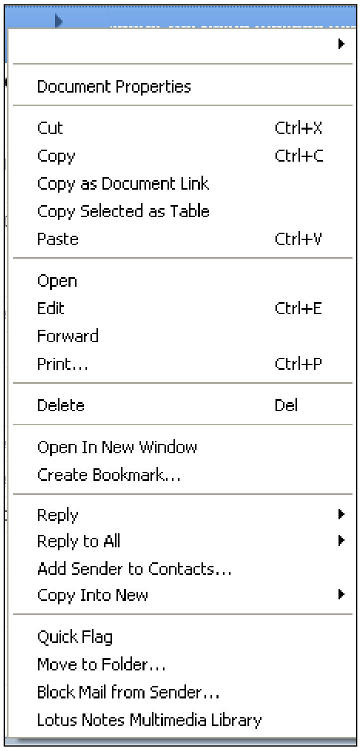
# User interface enhancements

The first thing you will notice when logging into Lotus Notes 8.5 is that the start up sequence has changed. One big change that was made to launch the client faster is to load `soffice.exe` when Symphony is launched, rather than when the Lotus Notes client is launched. The `soffice.exe` file is the Symphony productivity editor's executable.

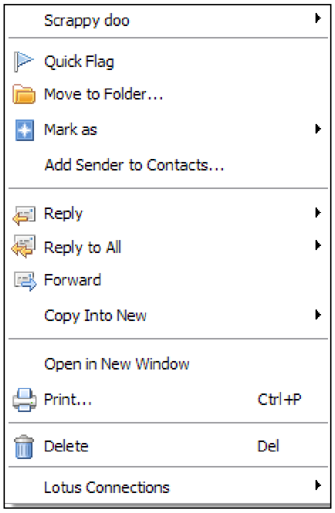
> There may be certain situations where you need to revert back to the pre-8.5 startup sequence. In these cases you can use the `ini` parameter `ENABLE_EARLY_AUTHENTICATION=0` to do so.

Context menus have been updated in Lotus Notes 8.5. They are now streamlined for all views such as mail, contacts, and to-do lists. To see these new context menus, right-click on the document from the view. You can also now mark e-mails read and unread from this menu as well.

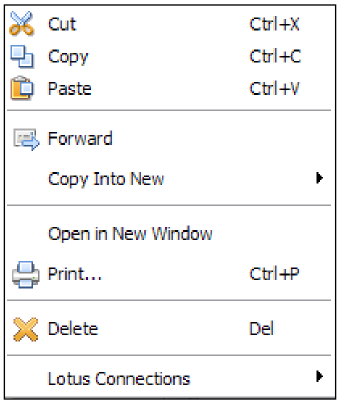
The following screenshot show context menus when right clicking on an e-mail in Lotus Notes 8.0:


Document Properties
Cut Ctrl+X
Copy Ctrl+C
Copy as Document Link
Copy Selected as Table
Paste Ctrl+V
Open
Edit Ctrl+E
Forward
Print... Ctrl+P
Delete Del
Open In New Window
Create Bookmark...
Reply
Reply to All
Add Sender to Contacts...
Copy Into New
Quick Flag
Move to Folder...
Block Mail from Sender...
Lotus Notes Multimedia Library

The following screenshot show context menus when right clicking on an e-mail in Lotus Notes 8.5:


Scrappy doo
Quick Flag
Move to Folder...
Mark as
Add Sender to Contacts...
Reply
Reply to All
Forward
Copy Into New
Open in New Window
Print... Ctrl+P
Delete Del
Lotus Connections

This is the contextual menu when right clicking on a calendar entry is shown in the following screenshot:


Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Forward
Copy Into New
Open in New Window
Print... Ctrl+P
Delete Del
Lotus Connections

> You can now use the *Tab* key to navigate to the next field as well as next window, in Lotus Notes preferences.

Now there is the ability to drag-and-drop between rich-text fields. This feature is only available in the Microsoft Windows platform.

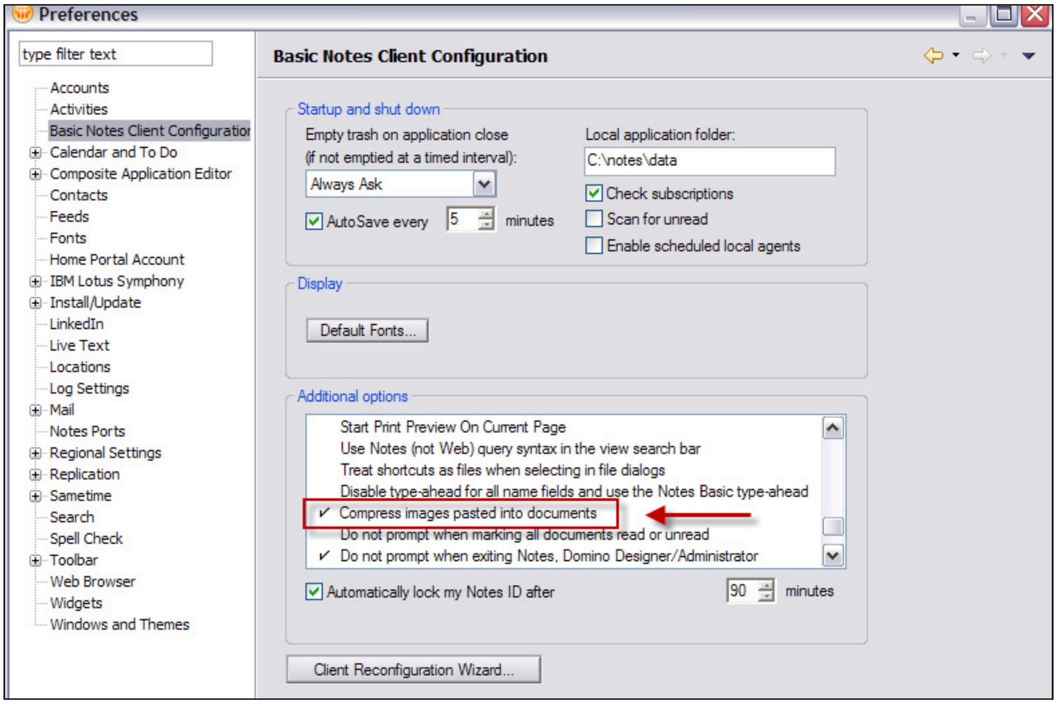
You can even drag text from external applications to Lotus Notes name fields. If you have Sametime, you can drag contacts and groups into names and rich-text fields.

The live text functionality has been improved and changed from 8.0. Now, when you hover over live text, the cursor will change to a blue drop-down arrow.

After the cursor has changed, you can left-click on the live text to start an action. If there is a default action set, then it will run. Lotus Notes 8.5 also introduced Widgets and Live Text feature to the Macintosh and Linux platforms.

# Mail features

Following the green computing theme of 8.5, Lotus Notes 8.5 can now automatically compress images that are pasted into documents. This reduces the space needed to store the images as well as send them. To enable this new feature go to **File** | **Preferences** | **Basic Note Client Configuration** and then check **Compress images pasted into documents**. This setting is enabled by default:


Preferences
type filter text
Accounts
Activities
Basic Notes Client Configuration
Calendar and To Do
Composite Application Editor
Contacts
Feeds
Fonts
Home Portal Account
IBM Lotus Symphony
Install/Update
LinkedIn
Live Text
Locations
Log Settings
Mail
Notes Ports
Regional Settings
Replication
Sametime
Search
Spell Check
Toolbar
Web Browser
Widgets
Windows and Themes
Basic Notes Client Configuration
Default Fonts...
Client Reconfiguration Wizard...

Startup and shut down

Empty trash on application close (if not emptied at a timed interval): Always Ask

☑ AutoSave every 5 minutes

Local application folder: C:\notes\data

☑ Check subscriptions

☐ Scan for unread

☐ Enable scheduled local agents

Display

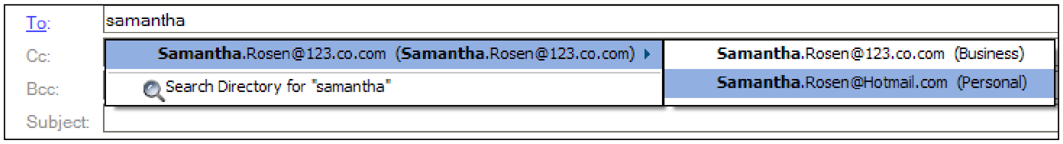
Additional options

Start Print Preview On Current Page
Use Notes (not Web) query syntax in the view search bar
Treat shortcuts as files when selecting in file dialogs
Disable type-ahead for all name fields and use the Notes Basic type-ahead
✓ Compress images pasted into documents
Do not prompt when marking all documents read or unread
✓ Do not prompt when exiting Notes, Domino Designer/Administrator

☑ Automatically lock my Notes ID after 90 minutes

> Using the `OptimizeImagePasteSize` `notes.ini` parameter, compression can also be enabled and disabled.

If you often have contacts with multiple e-mail addresses, the 8.5 release now allows you to use multiple email address with each contact. When you start to type the contact's name, type ahead will now bring up all e-mail addresses for that contact. The most frequently used addresses will be at the top, as they are sorted by frequency as shown in the following screenshot:


Cc:
Bcc:
Subject:

To: samantha

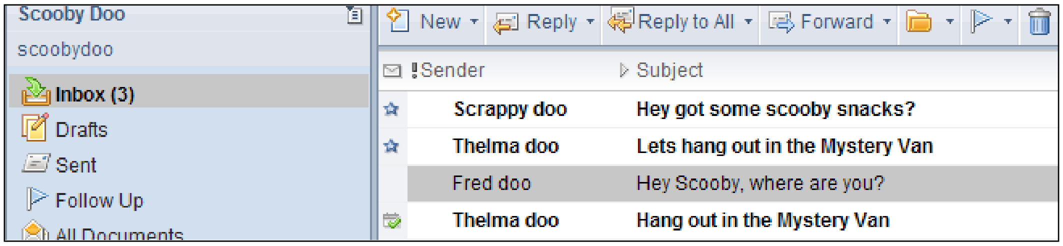
**Samantha**.Rosen@123.co.com (**Samantha**.Rosen@123.co.com)

Search Directory for "samantha"

**Samantha**.Rosen@123.co.com (Business)

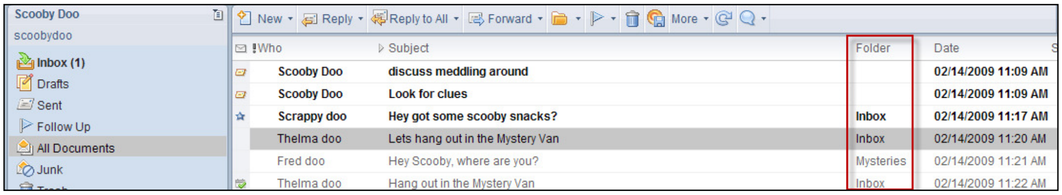
**Samantha**.Rosen@Hotmail.com (Personal)

Open your inbox in 8.5, and you will notice a few changes to the icons. The icons for read and unread mail have changed. A star icon now appears next to unread mail, as shown in the following screenshot:


Scooby Doo
scoobydoo
Inbox (3)
Drafts
Sent
Follow Up
All Documents
New
Reply
Reply to All
Forward

| | !Sender | Subject |
|---|---|---|
| ☆ | **Scrappy doo** | **Hey got some scooby snacks?** |
| ☆ | **Thelma doo** | **Lets hang out in the Mystery Van** |
| | Fred doo | Hey Scooby, where are you? |
| | **Thelma doo** | **Hang out in the Mystery Van** |

Now, in the **All Documents** view there is a new column that displays the folder that the message is in:


Scooby Doo
scoobydoo
Inbox (1)
Drafts
Sent
Follow Up
All Documents
Junk
New
Reply
Reply to All
Forward
More

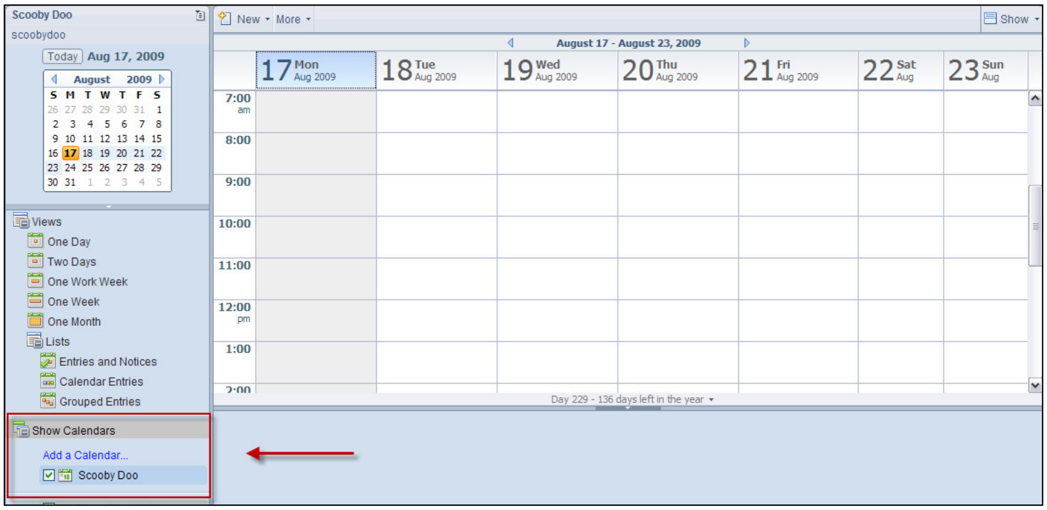
| | !Who | Subject | Folder | Date |
|---|---|---|---|---|
| | **Scooby Doo** | **discuss meddling around** | | **02/14/2009 11:09 AM** |
| | **Scooby Doo** | **Look for clues** | | **02/14/2009 11:09 AM** |
| ☆ | **Scrappy doo** | **Hey got some scooby snacks?** | **Inbox** | **02/14/2009 11:17 AM** |
| | Thelma doo | Lets hang out in the Mystery Van | Inbox | 02/14/2009 11:20 AM |
| | Fred doo | Hey Scooby, where are you? | Mysteries | 02/14/2009 11:21 AM |
| | Thelma doo | Hang out in the Mystery Van | Inbox | 02/14/2009 11:22 AM |

# Calendar features

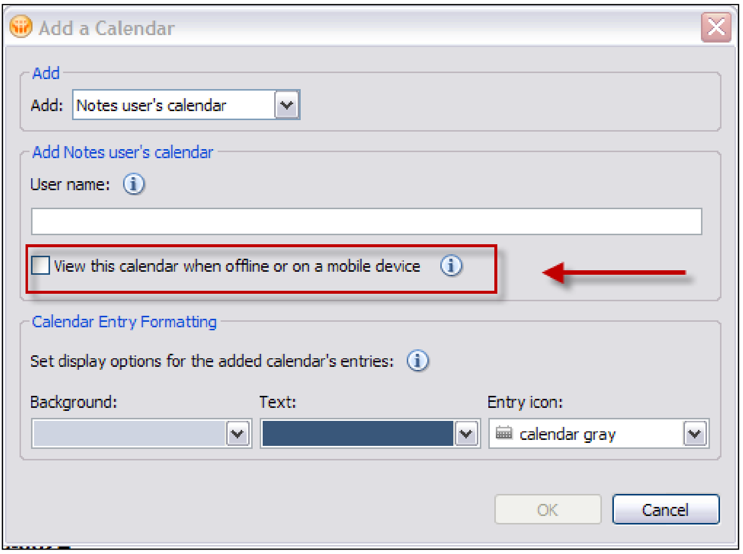
The following sections detail the new calendar features.

## Calendar federation

One of the new calendar features introduced in this release is calendar federation. This feature allows you to federate calendars from external sources, such as Google. You can federate calendars from web-based sources, other Lotus Notes users, or from files. It will overlay the calendar into your Lotus Notes 8.5 calendar. The **Other People's Calendars** option in the navigator of Notes 8.0 has changed in Lotus Notes 8.5. It is now called **Show Calendars**. The benefit of the overlay feature in Lotus Notes 8.5 is that you now have the option of adding another Lotus Notes user's calendar directly into your calendar. Some customers (calendar managers, administrative assistants, and so on) may prefer to use this feature, but they can still open the other user's calendar in another tab, in the same way as they have always been able to do in previous releases.


Scooby Doo
scoobydoo
Today
Aug 17, 2009
August 2009
New
More
Show
August 17 - August 23, 2009
17 Mon Aug 2009
18 Tue Aug 2009
19 Wed Aug 2009
20 Thu Aug 2009
21 Fri Aug 2009
22 Sat Aug
23 Sun Aug
Views
One Day
Two Days
One Work Week
One Week
One Month
Lists
Entries and Notices
Calendar Entries
Grouped Entries
Show Calendars
Add a Calendar...
Scooby Doo
Day 229 - 136 days left in the year

The following screenshot shows the **Add a Calendar** window. If you want your calendar entries to synch with your mobile device, check the option **View this calendar when offline or on a mobile device** checkbox:


Add a Calendar
OK
Cancel

Add

Add: Notes user's calendar

Add Notes user's calendar

User name:

☐ View this calendar when offline or on a mobile device

Calendar Entry Formatting

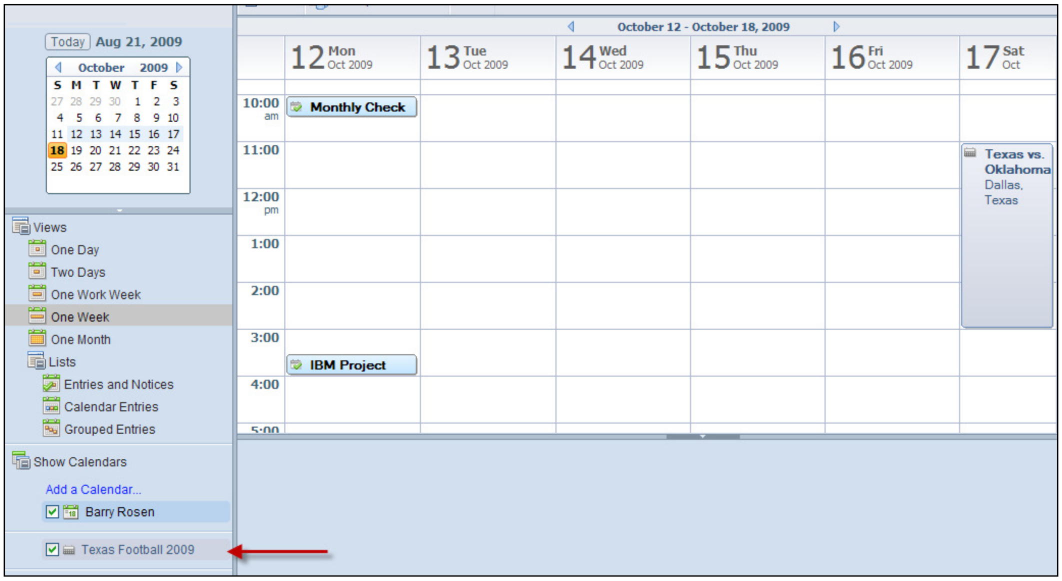
Set display options for the added calendar's entries:

Background:

Text:

Entry icon: calendar gray

When you select the option to synch with a mobile device, you will see 45 days before and 45 days after the current date. The following screenshot is an example of a federated calendars:


Today Aug 21, 2009
October 2009
S M T W T F S
27 28 29 30 1 2 3
4 5 6 7 8 9 10
11 12 13 14 15 16 17
18 19 20 21 22 23 24
25 26 27 28 29 30 31
Views
One Day
Two Days
One Work Week
One Week
One Month
Lists
Entries and Notices
Calendar Entries
Grouped Entries
Show Calendars
Add a Calendar...
Barry Rosen
Texas Football 2009
October 12 - October 18, 2009
12 Mon Oct 2009
13 Tue Oct 2009
14 Wed Oct 2009
15 Thu Oct 2009
16 Fri Oct 2009
17 Sat Oct
10:00 am
11:00
12:00 pm
1:00
2:00
3:00
4:00
5:00
Monthly Check
IBM Project
Texas vs. Oklahoma
Dallas, Texas

## Repair calendar

There is also a new feature called the repair calendar feature. This feature in Lotus Notes 8.5, fixes issues where duplicate or repeated calendar entries exist in the mail file. A Lotus Notes 8.5 client and template are both required for this feature to work. If you have duplicates due to replication conflicts, this will correct and repair the calendar.

> To disable the repair feature, add the following line to the `notes.ini` file on the client system: `CSEnableEventRepair=0`.

Interoperability of calendar invites between other systems, especially Outlook/Exchange, has been enhanced with the use of two new configuration settings. These settings are **Compatibility Mode** and **MIME Simplification**. By default, these are not enabled.

When **Compatibility Mode** is off, the user will need to manually enable the **Some invitees use other mail programs** option. When you enable this option, it disables the ability to create custom repeating meetings. Here is a new INI parameter that can be used to hide this option, change the default value, or lock the option on for all meetings. When displayed, the **Some invitees use other mail programs** option appears above the attendee list in a meeting entry. The INI parameter is `$CSCompatibilityMode`. For a table of the values and recommended settings, see the Domino 8.5 Administrator Guide.

MIME Simplification is enabled with the `notes.ini` parameter `DisallowRelatedIcalendarMime`. Enabling this controls when the iCal conversion code generates plain text versus rich text when sending an invitation to an Internet e-mail address. For a table of the values and recommended settings, see the Domino 8.5 Administrator Guide.

## Contacts

There are three changes to contacts. They are as follows:

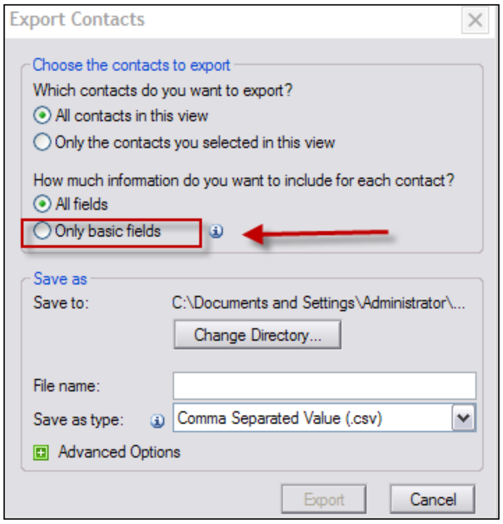
- Importing
- Exporting
- Forwarding.

## Importing

Contacts can now be imported, and field mapping can be done before or after the contacts are imported.

## Exporting

When exporting contacts, you can filter the fields and you now have the option to export only basic fields (see the following screenshot):



Export Contacts

Choose the contacts to export

Which contacts do you want to export?

● All contacts in this view

○ Only the contacts you selected in this view

How much information do you want to include for each contact?

● All fields

○ Only basic fields

Save as

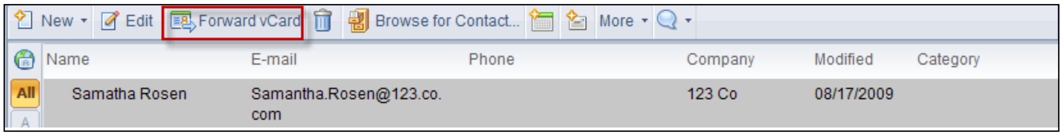
Save to: C:\Documents and Settings\Administrator\...

File name:

Save as type: Comma Separated Value (.csv)

## Forwarding

Finally, you can now forward the contact directly from the contacts via the **Forward vCard** button, as shown in the following screenshot:



| Name | E-mail | Phone | Company | Modified | Category |
|---|---|---|---|---|---|
| Samatha Rosen | Samantha.Rosen@123.co.<br>com |  | 123 Co | 08/17/2009 |  |

## Key software changes

There are also key software changes in Lotus Notes 8.5.

## Notes Shared Login

New to Lotus Notes 8.5 is Notes Shared Login. Notes Shared Login, allows users, without having to provide Notes passwords, to start Lotus Notes and use their Notes ID. Instead, users only need to log into Microsoft Windows using their Windows password.

> If Notes Single Login has already been enabled for Lotus Notes 8 or earlier, it should be removed before enabling Notes Shared Login in Notes 8.5.

Unlike the Lotus Notes Single Login feature in earlier releases, Lotus Notes 8.5 does not use the Windows password for the Notes ID file. Instead, it stores a secure token used to unlock the Notes ID file in a secure way, provided by an external mechanism. Lotus Notes 8.5 uses a Windows mechanism, so the secure token will only be accessible by users who have logged into Windows.

> NSL is not supported for Lotus Notes IDs that are used on computers that do not run Microsoft Windows, are protected by smartcards or multiple passwords, are used with Notes on a USB drive, are used by users who have Windows mandatory profiles, or in a Citrix environment.

## Notebook

In Lotus Notes 8.5, the Personal Journal has been given the new name of Notebook. The Notebook template (`Notebook8.ntf`) includes some of the same elements as the Journal template in earlier releases, such as categorized folders, views, and the ability to create a blank sheet without a heading. The Notebook template also includes some new features. You can now show or hide heading fields (Subject, Entry date, or Category) in Notebook entries. Printing is now allowed without a header. Soft deletions are now also enabled.

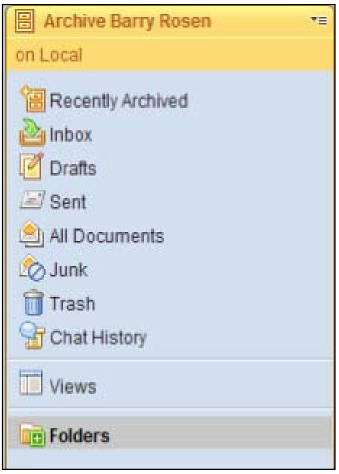
# Lotus Notes 8.5.1

There were several new features introduced into the Lotus Notes 8.5.1 client. This section of the chapter will highlight the following areas:

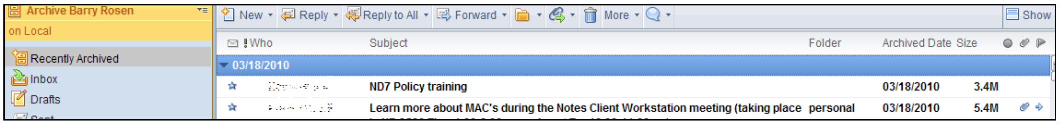
- Mail features
- Calendar features
- Rich Text Editor
- Replication and Synchronization
- Widgets and Live Text
- General changes

## Mail features

Lotus Notes 8.5.1 contained many changes and improvements to the Mail features. One of these changes is Archiving. When the user is in an archive, the archive name is now highlighted in yellow. This is to help the users visually identify which mail file they are currently accessing. Archive, Other Mail, Follow-up, and Tools folders will not appear when the user is in the archive. There is now a Archived view. This will assist when someone is looking for a recently archived document as seen in the following screenshot:

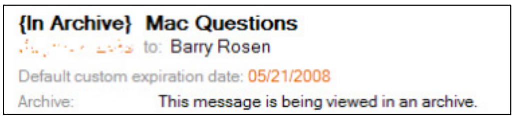

Archive Barry Rosen
on Local
Recently Archived
Inbox
Drafts
Sent
All Documents
Junk
Trash
Chat History
Views
Folders

The **Recently Archived** folder now lists all recently archived messages, categorized by the archived date (see the following screenshot):


Archive Barry Rosen
on Local
Recently Archived
Inbox
Drafts
New
Reply
Reply to All
Forward
More
Show

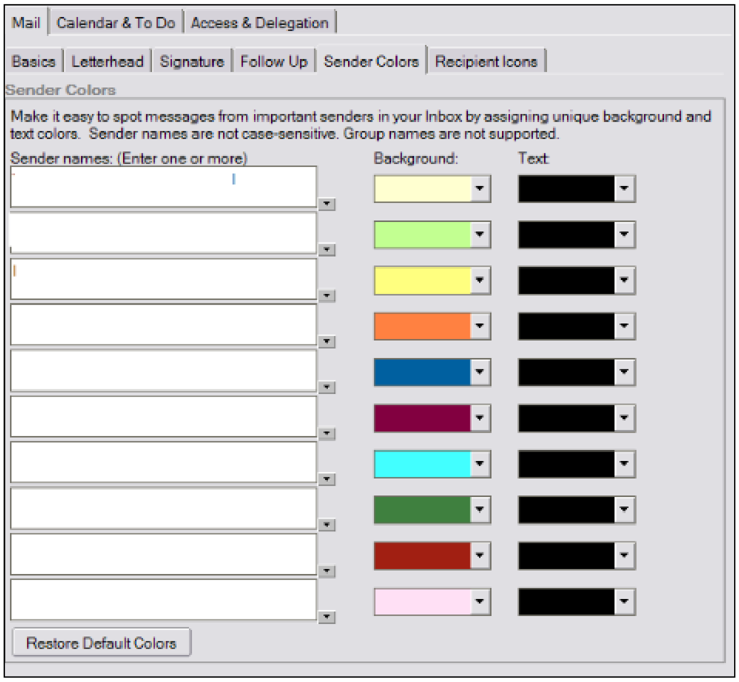
| Who | Subject | Folder | Archived Date | Size |
|---|---|---|---|---|
| 03/18/2010 | | | | |
| [redacted] | ND7 Policy training | | 03/18/2010 | 3.4M |
| [redacted] | Learn more about MAC's during the Notes Client Workstation meeting (taking place | personal | 03/18/2010 | 5.4M |

Another visual cue to the user, that was added, is in the subject line of a message opened or previewed from an archive. The subject line now contains **{In Archive}**.



**{In Archive} Mac Questions**
[redacted] to: Barry Rosen
Default custom expiration date: 05/21/2008
Archive: This message is being viewed in an archive.

Staying with the visual changes with the 8.5.1 client, there are now ten colors that can be assigned to a sender.

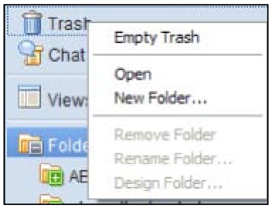

Mail
Calendar & To Do
Access & Delegation
Basics
Letterhead
Signature
Follow Up
Sender Colors
Recipient Icons
Sender Colors
Restore Default Colors

Make it easy to spot messages from important senders in your Inbox by assigning unique background and text colors. Sender names are not case-sensitive. Group names are not supported.

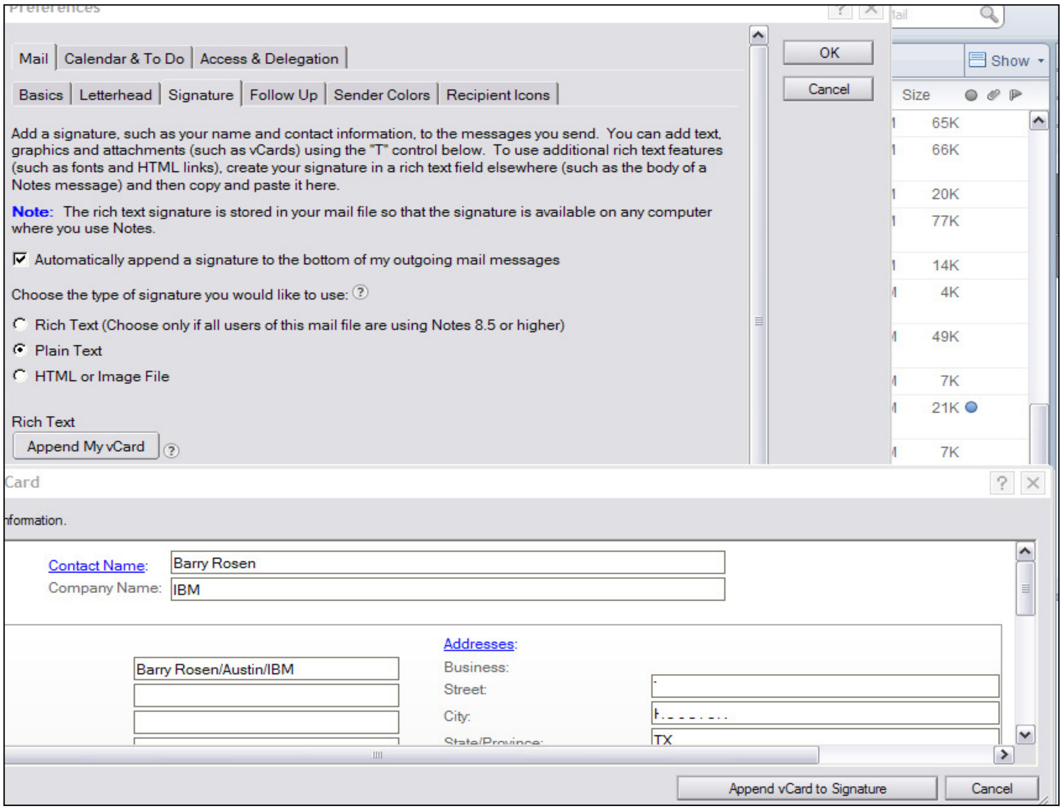
| Sender names: (Enter one or more) | Background: | Text: |
|---|---|---|
| | 🟨 | ⬛ |
| | 🟩 | ⬛ |
| | 🟨 | ⬛ |
| | 🟧 | ⬛ |
| | 🟦 | ⬛ |
| | 🟪 | ⬛ |
| | 🟦 | ⬛ |
| | 🟩 | ⬛ |
| | 🟥 | ⬛ |
| | 🟪 | ⬛ |

Spam control has now been integrated into the 8.5.1 client, when using Lotus Protector. This allows the user to control the amount of inbound messages they receive, by blocking spam right from the client.

The ability to empty the trash has been added to the contextual menu, when right clicking from any mail view.


Trash
Chat
Views
Folde
AE
Empty Trash
Open
New Folder...
Remove Folder
Rename Folder...
Design Folder...

With a new preference setting under **Preferences** | **Mail** | **Signature**, you can append a vCard (`.vcf`) file to your signature (through the **Append My vCard** option). The basic fields are filled in on basis of the information in your organization's directory, as shown in the following screenshot:


Preferences
OK
Cancel
Show
Size
Mail
Calendar & To Do
Access & Delegation
Basics
Letterhead
Signature
Follow Up
Sender Colors
Recipient Icons
65K
66K
20K
77K
14K
4K
49K
7K
21K
7K
Append vCard to Signature
Cancel

Add a signature, such as your name and contact information, to the messages you send. You can add text, graphics and attachments (such as vCards) using the "T" control below. To use additional rich text features (such as fonts and HTML links), create your signature in a rich text field elsewhere (such as the body of a Notes message) and then copy and paste it here.

**Note:** The rich text signature is stored in your mail file so that the signature is available on any computer where you use Notes.

☑ Automatically append a signature to the bottom of my outgoing mail messages

Choose the type of signature you would like to use:

○ Rich Text (Choose only if all users of this mail file are using Notes 8.5 or higher)
● Plain Text
○ HTML or Image File

Rich Text
Append My vCard

Card

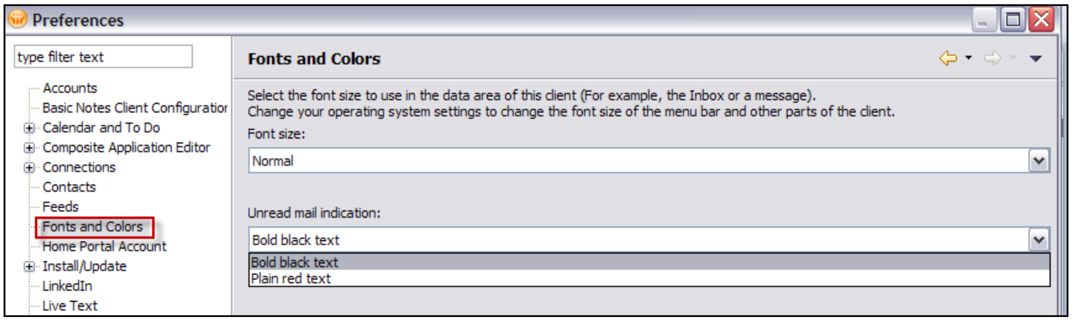
formation.

Contact Name: Barry Rosen
Company Name: IBM

Barry Rosen/Austin/IBM

Addresses:
Business:
Street:
City:
State/Province: TX

Another preference called **Fonts and Colors** was added in 8.5.1. This one controls the setting for the bold black text for unread mail, as shown in the following screenshot:


Preferences
type filter text
Accounts
Basic Notes Client Configuratior
Calendar and To Do
Composite Application Editor
Connections
Contacts
Feeds
Fonts and Colors
Home Portal Account
Install/Update
LinkedIn
Live Text

**Fonts and Colors**

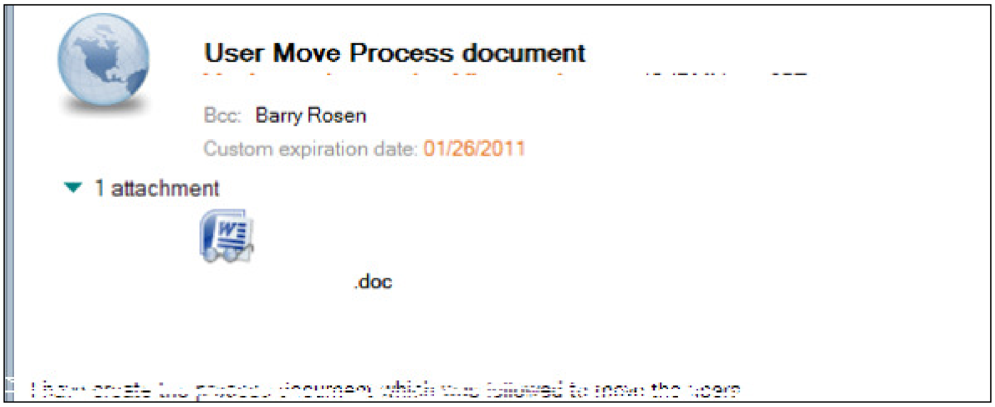
Select the font size to use in the data area of this client (For example, the Inbox or a message).
Change your operating system settings to change the font size of the menu bar and other parts of the client.

Font size: Normal

Unread mail indication: Bold black text

Bold black text
Plain red text

An improvement was made in the behavior of attachments in the message. Now, the attachments appear at the top for all inbound MIME mail, as shown in the following screenshot:



**User Move Process document**

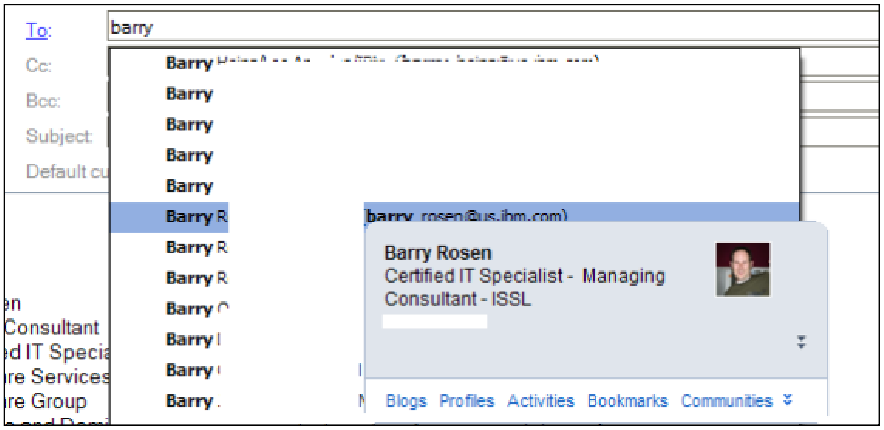
Bcc: Barry Rosen

Custom expiration date: 01/26/2011

1 attachment
.doc

I have create the process document which was followed to move the users

Type-ahead addressing has now been added to the users' business card when highlighted.


To:
Cc:
Bcc:
Subject:
Default cu
Barry
Barry
Barry
Barry
Barry
Barry R
Barry R
Barry R
Barry
Barry
Barry
Barry
Blogs
Profiles
Activities
Bookmarks
Communities

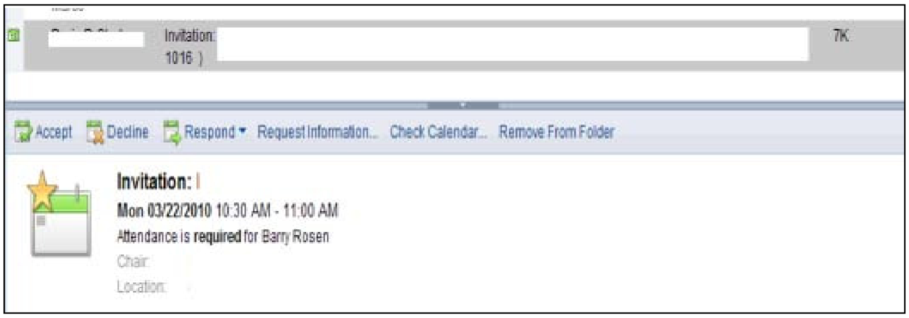
To: barry

barry rosen@us.ibm.com)

Barry Rosen
Certified IT Specialist - Managing Consultant - ISSL

## Calendar features

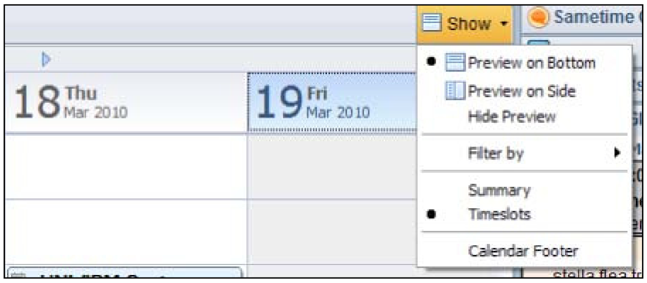
Lotus Notes 8.5.1 contains many changes and improvements to the calendar features. Lotus Notes 8.5.1 has improved the preview pane to add the ability to accept and decline calendar invites (see the following screenshot):


7K
Accept
Decline
Respond
Request Information...
Check Calendar...
Remove From Folder

Invitation: 1016 )

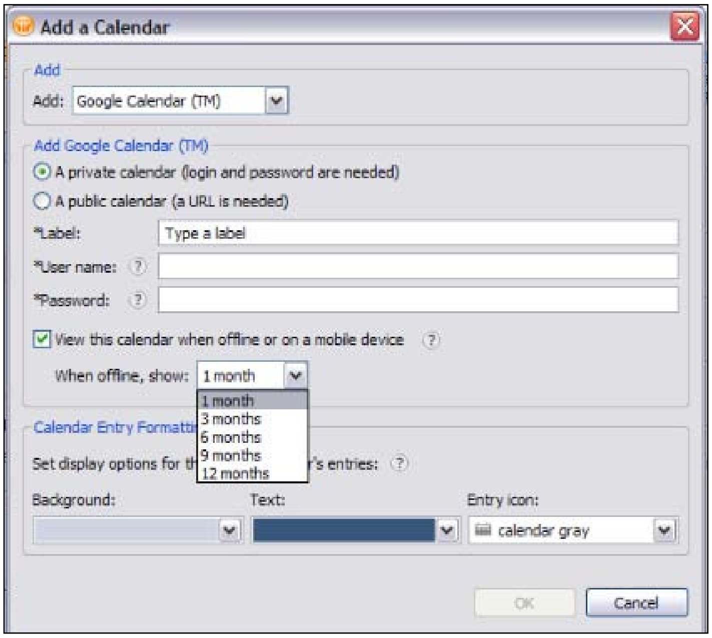
Invitation:
Mon 03/22/2010 10:30 AM - 11:00 AM
Attendance is required for Barry Rosen
Chair:
Location:

New to the calendar view is the choice on how to display calendar entries under **Show** | **Summary** or **Show** | **Timeslots**.


Show
Sametime
18 Thu
Mar 2010
19 Fri
Mar 2010
● Preview on Bottom
Preview on Side
Hide Preview
Filter by
Summary
● Timeslots
Calendar Footer

Additional drag and drop capabilities have been added to the calendar functionality. You can now drag a mail message to the calendar tab or Day-at-a-Glance. This will create a calendar invite to the users in the mail message, as well as the content of the e-mail. Dragging a calendar entry to a new date on the date picker in either your main calendar or the **Day At A Glance** sidebar pane, will allow you to change the date/time of the invite. This will open the Reschedule dialog box. This is a convenient way to counter a meeting invitation. To drag to a different month on the date picker, hover over the previous or next arrow while dragging.

Google calendars can be viewed offline or on a mobile device. You can choose the length of time you want the Google calendar to display (see the following screenshot):


Add a Calendar

Add

Add: Google Calendar (TM)

Add Google Calendar (TM)

● A private calendar (login and password are needed)

○ A public calendar (a URL is needed)

*Label: Type a label

*User name:

*Password:

☑ View this calendar when offline or on a mobile device

When offline, show: 1 month

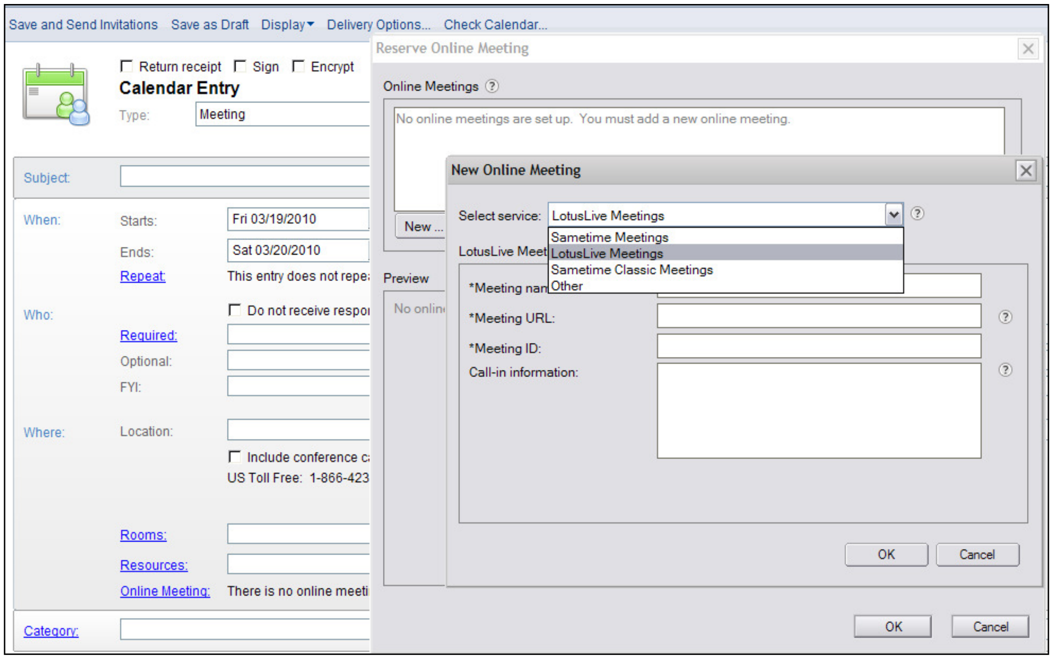
1 month
3 months
6 months
9 months
12 months
Calendar Entry Formatti
Set display options for th
r's entries:
Background:
Text:
Entry icon:
calendar gray
OK
Cancel

For those users who like to leave the Lotus Notes client running over night, at midnight, the **Day At A Glance** views automatically refresh to the next day.

> This feature is enabled by default. To turn it off, add the following line to your `Notes.ini` file: `CalendarRefreshOnSystemDateChange=0`.

iCalendar invites sent from a Mac Notes client are now just as rich as those sent from Windows which improves interoperability between two popular operating systems. This now includes HTML content such as tables, inline images, file attachments, and attached comments.

Tying into the LotusLive collaborative cloud offering, a new meeting type for LotusLive meetings has been added to the online meeting preference:


Save and Send Invitations
Save as Draft
Display
Delivery Options...
Check Calendar...
Return receipt
Sign
Encrypt
Calendar Entry
Subject:
Repeat:
Who:
Required:
Optional:
FYI:
Where:
Rooms:
Resources:
Online Meeting:
Category:
Reserve Online Meeting
Online Meetings
New ...
Preview
New Online Meeting
Sametime Meetings
LotusLive Meetings
Sametime Classic Meetings
Other
*Meeting name:
*Meeting URL:
*Meeting ID:
Call-in information:
OK
Cancel
OK
Cancel

Type: Meeting

When: Starts: Fri 03/19/2010

Ends: Sat 03/20/2010

This entry does not repea

☐ Do not receive respo

Location:

☐ Include conference c

US Toll Free: 1-866-423

There is no online meeti

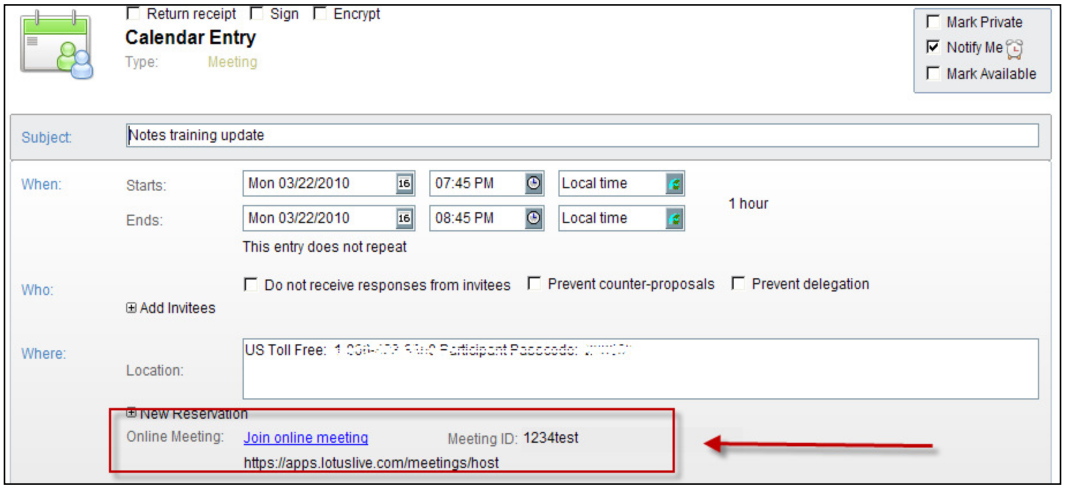
No online meetings are set up. You must add a new online meeting.

No onlin

Select service: LotusLive Meetings

LotusLive Meet

This will display the online meeting information in the invite.



☐ Return receipt ☐ Sign ☐ Encrypt

**Calendar Entry**

Type: Meeting

☐ Mark Private
☑ Notify Me
☐ Mark Available

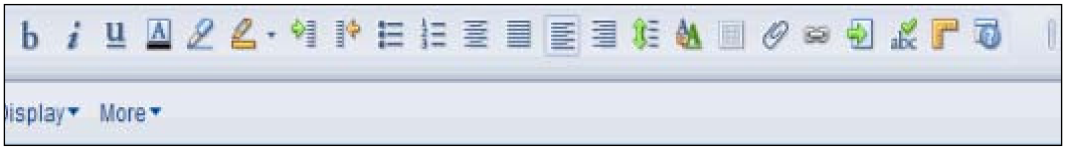
Subject: Notes training update

When:
Starts: Mon 03/22/2010 07:45 PM Local time
Ends: Mon 03/22/2010 08:45 PM Local time
1 hour
This entry does not repeat

Who:
☐ Do not receive responses from invitees ☐ Prevent counter-proposals ☐ Prevent delegation
⊞ Add Invitees

Where:
Location: US Toll Free: [redacted] Participant Passcode: [redacted]
⊞ New Reservation
Online Meeting: Join online meeting Meeting ID: 1234test
https://apps.lotuslive.com/meetings/host

Rich Text Editors have been extended to the notes section of calendar invites. Now you can see the editors in the toolbar.



# Rich Text Editor

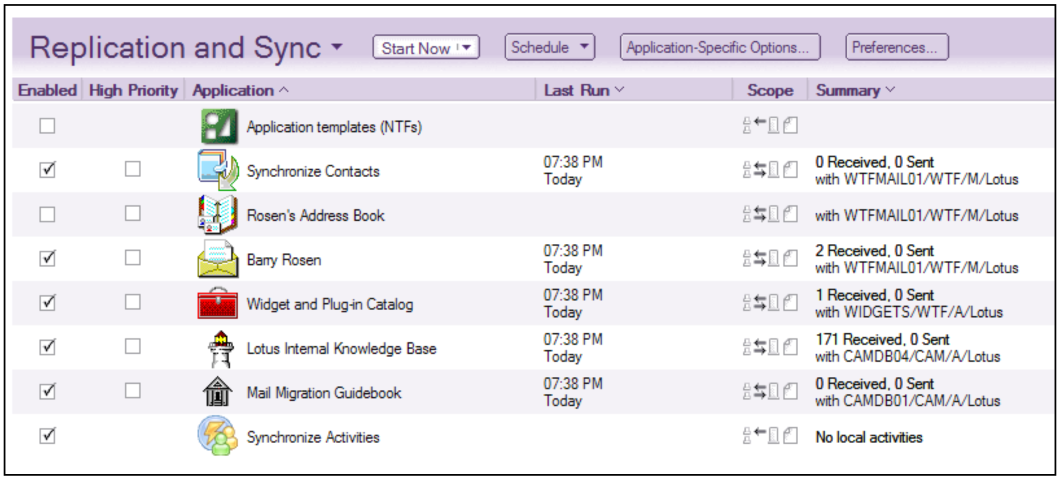
Several new features have been added to the Rich Text Editor in Lotus Notes 8.5.1. When using the permanent pen, the cursor changes to signify the permanent pen is being used. Selection behavior in the notes section is now smoother. You can scroll smoothly through the text as in normal text. Scrolling occurs only when you drag out of the window, now the entire section is still selected. For list elements, if no text is on a line then, no list element is displayed.

> There is an exception, too. In edit mode, a list element displays on an empty line if the cursor is in the paragraph.

Table creation has been improved to allow the user to drag to reorder rows or columns. Multiple layers of undo have been added. You can now step through multiple edits and undo them. This feature is supported when editing lists also. Tables can also be resized, when dragging the outside margin of a table to resize it, press and hold down the *Shift* key. When the cursor changes appearance, double-click on the border of a row or a column to insert a new row or column. The new row or column is inserted in between the two rows or columns sharing the common border. The cursor changes as when moved over text from one cell to another. Drag-and-drop the contents of a cell to move it to another cell. When you create a fixed width table, you can now specify the width in the **Create Table** dialog box. In previous versions, the width for fixed width tables was automatically determined based on the available area. You can also drag-and-drop a column border to resize it.

## Replication and synchronization

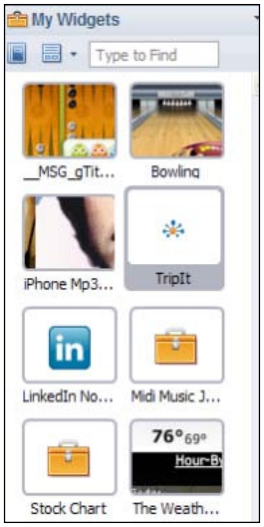
Activities can now be taken off-line. Now you will see any activities that you have taken offline on the **Replication and Sync** page.



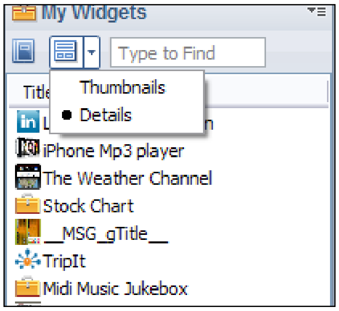
| Enabled | High Priority | Application | Last Run | Scope | Summary |
|---|---|---|---|---|---|
| ☐ | | Application templates (NTFs) | | ← | |
| ☑ | ☐ | Synchronize Contacts | 07:38 PM<br>Today | ⇆ | 0 Received, 0 Sent<br>with WTFMAIL01/WTF/M/Lotus |
| ☐ | ☐ | Rosen's Address Book | | ⇆ | with WTFMAIL01/WTF/M/Lotus |
| ☑ | ☐ | Barry Rosen | 07:38 PM<br>Today | ⇆ | 2 Received, 0 Sent<br>with WTFMAIL01/WTF/M/Lotus |
| ☑ | ☐ | Widget and Plug-in Catalog | 07:38 PM<br>Today | ⇆ | 1 Received, 0 Sent<br>with WIDGETS/WTF/A/Lotus |
| ☑ | ☐ | Lotus Internal Knowledge Base | 07:38 PM<br>Today | ⇆ | 171 Received, 0 Sent<br>with CAMDB04/CAM/A/Lotus |
| ☑ | ☐ | Mail Migration Guidebook | 07:38 PM<br>Today | ⇆ | 0 Received, 0 Sent<br>with CAMDB01/CAM/A/Lotus |
| ☑ | | Synchronize Activities | | ← | No local activities |

# Widgets and Live Text

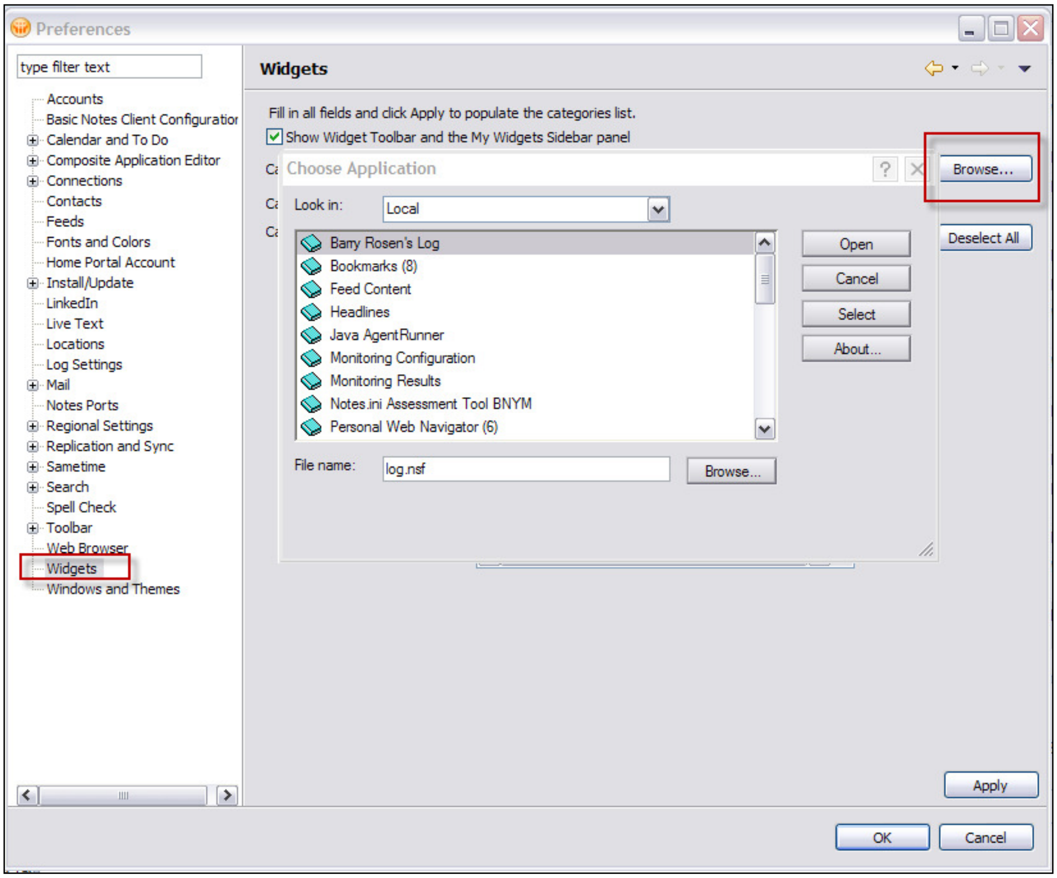
The Lotus Notes 8.5.1 client has made several changes around the Widget functionality. There is now a new toolbar added to the widgets sidebar. The buttons allow you to toggle how you view the widgets, and provide type to find field. The following screenshot shows the **Thumbnails** view of **My Widgets**:


My Widgets
Type to Find
__MSG_gTit...
Bowling
iPhone Mp3...
TripIt
LinkedIn No...
Midi Music J...
Stock Chart
The Weath...

Here is the **Details** view of **My Widgets**:


My Widgets
Type to Find
Title
Thumbnails
● Details
iPhone Mp3 player
The Weather Channel
Stock Chart
__MSG_gTitle__
TripIt
Midi Music Jukebox

In **Preferences**, you can now browse the **Widgets** catalog, as shown in the following screenshot:



Fill in all fields and click Apply to populate the categories list.

☑ Show Widget Toolbar and the My Widgets Sidebar panel

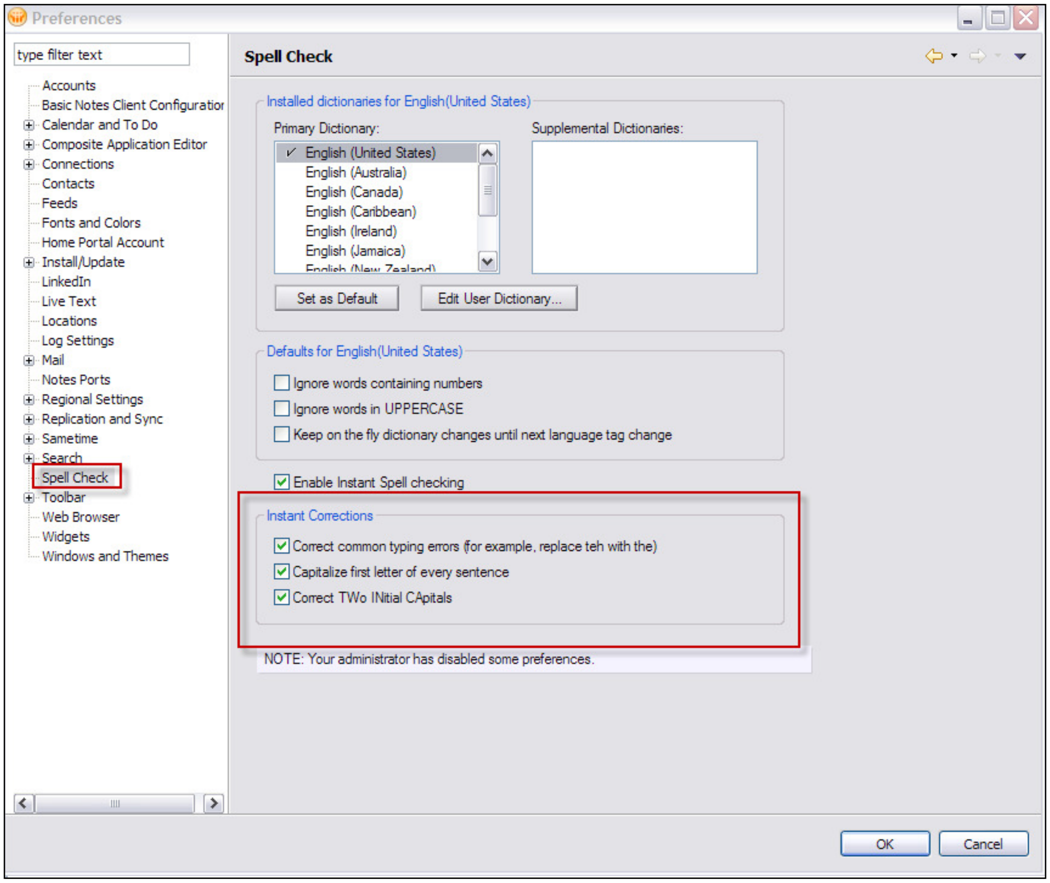
Look in: Local

File name: log.nsf

Preferences
type filter text
Accounts
Basic Notes Client Configuratior
Calendar and To Do
Composite Application Editor
Connections
Contacts
Feeds
Fonts and Colors
Home Portal Account
Install/Update
LinkedIn
Live Text
Locations
Log Settings
Mail
Notes Ports
Regional Settings
Replication and Sync
Sametime
Search
Spell Check
Toolbar
Web Browser
Widgets
Windows and Themes
Widgets
Browse...
Deselect All
Choose Application
Barry Rosen's Log
Bookmarks (8)
Feed Content
Headlines
Java AgentRunner
Monitoring Configuration
Monitoring Results
Notes.ini Assessment Tool BNYM
Personal Web Navigator (6)
Open
Cancel
Select
About...
Browse...
Apply
OK
Cancel

# General changes

The **Spell Check** feature has now been enhanced to increase user productivity (see the following screenshot). Additional preferences have been added to correct simple typing errors. As users type in characters or words within the body of a memo or document, if there's a match to an entry in the correction tables, the entered word will be adjusted to reflect that entry:


Preferences
type filter text
Accounts
Basic Notes Client Configuratior
Calendar and To Do
Composite Application Editor
Connections
Contacts
Feeds
Fonts and Colors
Home Portal Account
Install/Update
LinkedIn
Live Text
Locations
Log Settings
Mail
Notes Ports
Regional Settings
Replication and Sync
Sametime
Search
Spell Check
Toolbar
Web Browser
Widgets
Windows and Themes
Spell Check
Installed dictionaries for English(United States)
Primary Dictionary:
English (United States)
English (Australia)
English (Canada)
English (Caribbean)
English (Ireland)
English (Jamaica)
English (New Zealand)
Supplemental Dictionaries:
Set as Default
Edit User Dictionary...
OK
Cancel

Defaults for English(United States)

☐ Ignore words containing numbers
☐ Ignore words in UPPERCASE
☐ Keep on the fly dictionary changes until next language tag change

☑ Enable Instant Spell checking

Instant Corrections

☑ Correct common typing errors (for example, replace teh with the)
☑ Capitalize first letter of every sentence
☑ Correct TWo INitial CApitals

NOTE: Your administrator has disabled some preferences.

> The INI parameters—`AutoCorrect.UseReplacementTable=1`, `AutoCorrect.CapitalizeFirstWord=1`, `AutoCorrect.CorrectTwoInitialCapitals=1`—can be set to enable the options highlighted in the preceding screenshot or they can be enabled via policy.

Finally, there have been areas of improvement when multitasking in the Notes client. You can now start a task in the client and still use the embedded Sametime chat or the embedded browser.

# Lotus Notes 8.5.2

This section will cover the new features introduced in the Lotus Notes 8.5.2 client. Several exciting new features will be examined such as the following:

- Network optimization
- Fail over/fail back
- Serviceability
- Mail features
- Contacts
- Calendar and to-do enhancements
- Replication and synchronization
- Managed replica

Let's start with the additional operating systems that are now supported in Lotus Notes 8.5.2. Windows 7 (32 and 64 bit), Mac OS 10.6.2 and RHEL 5.4 desktop are all now supported.

## Network optimization

In Lotus Notes 8.5.2, the background replicator is multi-threaded for operations to occur in parallel. This optimizes network traffic by reducing the number of transactions performed and reducing network latency. This network optimization works with the new Managed Mail Replica feature allowing the ability to use mail that is free of network delays and server outages. Managed replicas will be discussed in more detail later in this chapter.

# Fail over/fail back

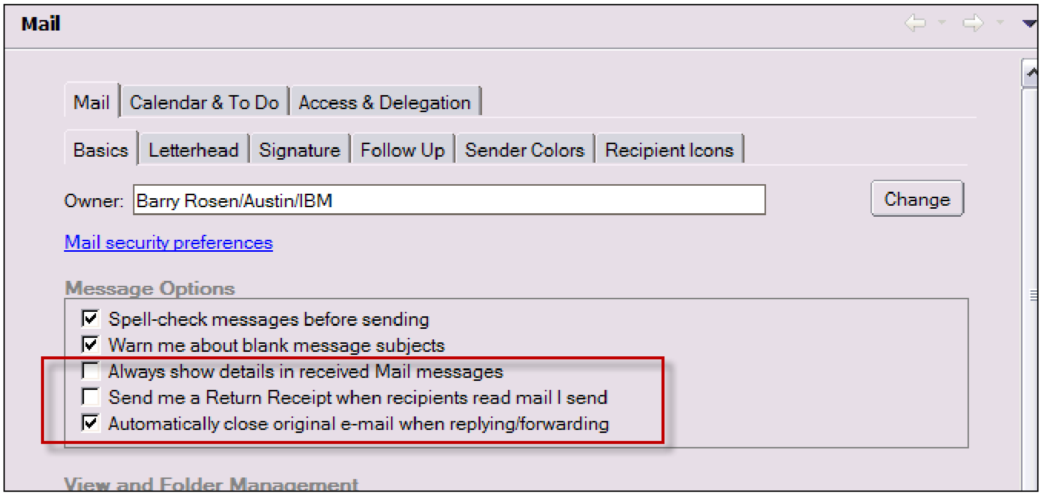
Until the Lotus Notes 8.5.2 client, the behavior of the client during a fail over situation would fail the user over to the cluster mate, but it would not have them read off their home mail server when it was available again. Significant improvements for a seamless and unobtrusive mail file experience when the server goes down have been made. Now, it is possible to fail over to a working server silently without interrupting or losing any of the user's work and automatically return to the user's primary mail server when it becomes reachable. This is not only a smoother end user experience, but it can reduce calls to the help desk during outages.

# Serviceability

Software that has built in capability to collect data that can assist in troubleshooting is very valuable. In Lotus Notes 8.5.2, there has been a focus on updating the IBM Support Assistant tool. These improvements include the way data is first captured for issues, simplifications for customers to run/collect information, and expanded diagnostic data collection capabilities. These are in place to provide improvements to "close the loop" with customer diagnostic data.

# Mail features

Several features and functions have changed in Lotus Notes 8.5.2. Now, you can sort your Inbox view by the type of message, using type icon as well as by last name, first name (including designation of last name prefixes). A new function allows you to set the current font as the default while composing or replying to an e-mail. New to Lotus Notes 8.5.2 is the ability to forward a message from the **Trash** folder without having to restore it first, saving time. The signature functionality will allow you to now specify whether a signature is rich text, plain text, or an html or an image file via preferences. Another improvement is keeping the message you have selected when changing to a different view or folder. A small improvement can sometimes make a big difference. Keeping folders open or closed when you re-open the Notes client allows a user to just start working right where they left off. No time is wasted manually re-setting your Notes client to your preferred state. Saving existing mail documents to EML files was also introduced in Lotus Notes 8.5.2. Finally, there are some new preference settings around sending mail and preview panes. They include show details (CC and full addresses) in e-mail by default, an option to enable return receipt on all messages, an option to close original e-mail when replying or forwarding, an option for navigation panes and folders staying open/closed when re-opening Notes, and the preview pane collapsed by default via setting (see the following screenshot):


Mail
Mail
Calendar & To Do
Access & Delegation
Basics
Letterhead
Signature
Follow Up
Sender Colors
Recipient Icons
Change
Mail security preferences
View and Folder Management

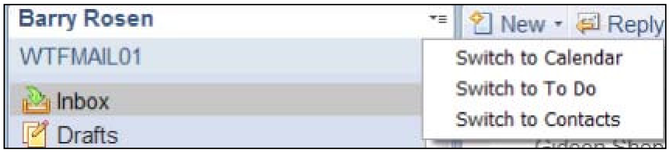
Owner: Barry Rosen/Austin/IBM

Message Options

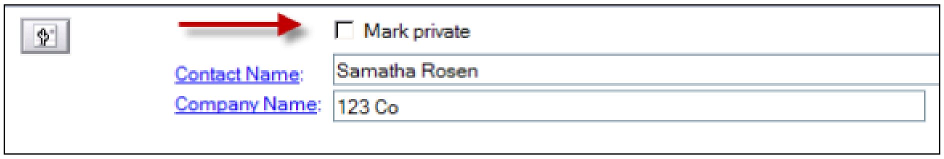
- ☑ Spell-check messages before sending
- ☑ Warn me about blank message subjects
- ☐ Always show details in received Mail messages
- ☐ Send me a Return Receipt when recipients read mail I send
- ☑ Automatically close original e-mail when replying/forwarding

# Contacts

Switching between mail, calendar, to-do lists, and contacts is now easier when using the switcher icon.


Barry Rosen
WTFMAIL01
Inbox
Drafts
New
Reply
Switch to Calendar
Switch to To Do
Switch to Contacts

Making a contact or a group private via the **Make private** checkbox or by right-clicking on the menu, is new in Lotus Notes 8.5.2. This hides the contact from people that are delegated to manage you contacts:

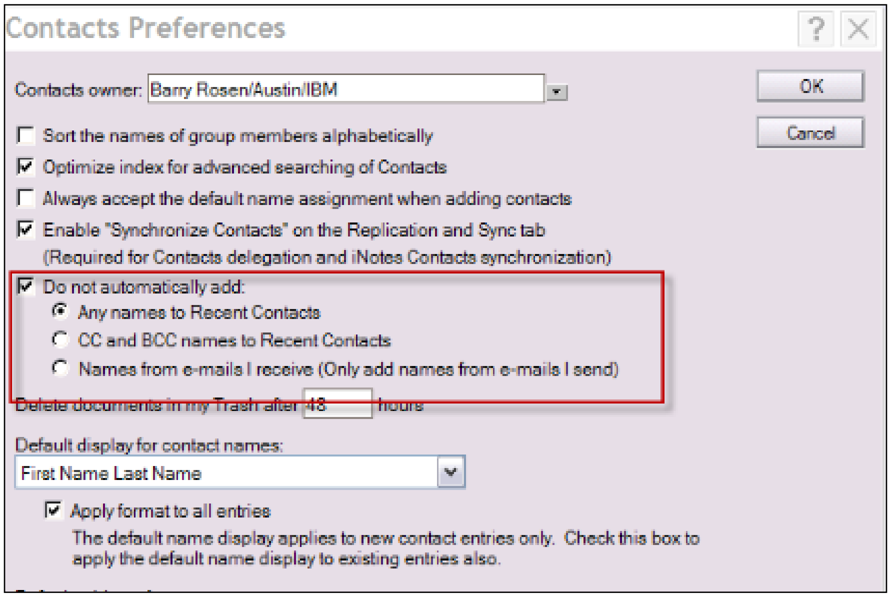


☐ Mark private

Contact Name: Samatha Rosen

Company Name: 123 Co

Now, you can easily remove someone from your **Recent Contacts** list via a right-click menu option in the e-mail type-ahead list or **Recent Contacts** view. You can now send someone a group or location from your contacts. This is sent as an e-mail that lets the recipient import the group or location into their contacts. A new preference setting has been added, so that the recipients in the CC and BCC list of mail will not be added to recent contacts:



Contacts owner: Barry Rosen/Austin/IBM

☐ Sort the names of group members alphabetically

☑ Optimize index for advanced searching of Contacts

☐ Always accept the default name assignment when adding contacts

☑ Enable "Synchronize Contacts" on the Replication and Sync tab
(Required for Contacts delegation and iNotes Contacts synchronization)

☑ Do not automatically add:
- ● Any names to Recent Contacts
- ○ CC and BCC names to Recent Contacts
- ○ Names from e-mails I receive (Only add names from e-mails I send)

Delete documents in my Trash after 48 hours

Default display for contact names:
First Name Last Name

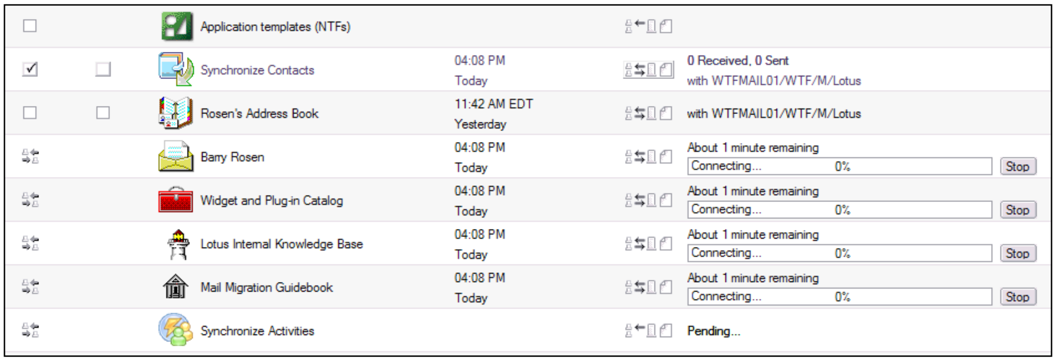
☑ Apply format to all entries
The default name display applies to new contact entries only. Check this box to apply the default name display to existing entries also.

## Calendar and to-do enhancements

Furthering the improvement of calendars refreshing at midnight, offline calendars now automatically update at midnight as well. OS time zone changes are now accurately reflected in the Lotus Notes calendar and meeting entries. In Lotus Notes 8.5.2, there is now improved handling of Facebook calendar entries. For room and resource owners as well as users, there is now the ability to view and reserve rooms and resources on your calendar. Another nice improvement to rooms and resources is that meeting subject changes are now reflected in the Rooms and Resource reservations database. Private iCalendar feeds can be added to your Notes calendar. Lotus Notes has mobilized **Team Room** (**TR**) calendars, allowing access on mobile devices. Repeating meeting improvements allow meetings to be accurately rescheduled when they fall on weekends (as specified by users). A new way to view calendar entries by category is available under the **Lists** view in the **Calendar** navigator pane.

# Replication and synchronization

Replication and synchronization is now multithreaded to improve throughput and timelines. This allows replication on client start and client exit to complete much faster than before:



| | | | | |
|---|---|---|---|---|
| ☐ | | Application templates (NTFs) | | |
| ☑ | ☐ | Synchronize Contacts | 04:08 PM<br>Today | 0 Received, 0 Sent<br>with WTFMAIL01/WTF/M/Lotus |
| ☐ | ☐ | Rosen's Address Book | 11:42 AM EDT<br>Yesterday | with WTFMAIL01/WTF/M/Lotus |
| | | Barry Rosen | 04:08 PM<br>Today | About 1 minute remaining<br>Connecting... 0% |
| | | Widget and Plug-in Catalog | 04:08 PM<br>Today | About 1 minute remaining<br>Connecting... 0% |
| | | Lotus Internal Knowledge Base | 04:08 PM<br>Today | About 1 minute remaining<br>Connecting... 0% |
| | | Mail Migration Guidebook | 04:08 PM<br>Today | About 1 minute remaining<br>Connecting... 0% |
| | | Synchronize Activities | | Pending... |

# Managed Replica

Managed Replica is a great feature introduced in Lotus Notes 8.5.2. It is the best of both worlds of receiving mail immediately and working off a local replica. The local managed replica is created in the background while the user continues to use the server copy. The company's Domino administrator can limit the managed replica to the last *n* days of mail/calendar entries if local space is a consideration or your users have very large mail files. The initial creation of a managed replica is controlled to minimize the impact to the server of multiple users/clients creating managed replicas. After the managed replica is created, the user is automatically switched to the managed replica. As opposed to a standard local replica, if the managed replica needs to be fixed up, the fix up will occur in the background and the user will be redirected to their server copy. If the managed replica becomes corrupt, it will be deleted and recreated. This greatly reduces the need for a user to call the help desk for local corruption, as this is all seamless and invisible to the end user. To speed up the initial creation of the managed replica, documents beyond 30 days are initially truncated bringing down part of the document and omitting attachments. To allow simultaneous instantaneous mail notifications, new mail polling and notification is performed against the server copy.

There are additional settings that complete the managed replica experience. If the user opens a truncated document, the rest of the document and/or attachments can be retrieved in the background. All mail sends will route immediately through the local mailbox to avoid any delays sending mail messages and attachments.

The Domino administrator can control the number of managed replicas are created simultaneously. By default, the client will allow 25 concurrently managed replica creations against any given server. For more granular control, an administrator can make the following changes:

- Enable the **Smart Upgrade Governor** in the server configuration document
- Set the number of simultaneous Smart Upgrade downloads to a desired value

> Initial managed replica creation will not exceed 90 percent of this value.
>
> The Smart Upgrade Governor is used to support existing servers. Enabling the governor does not require the use of Smart Upgrade, it just facilitates a mechanism for multiple clients to coordinate the impact and load against a given server.

# Lotus Notes 8.5.3

This section will cover the new features introduced in the latest Lotus Notes 8.5.3 client release. Several exciting new features will be examined such as the following:

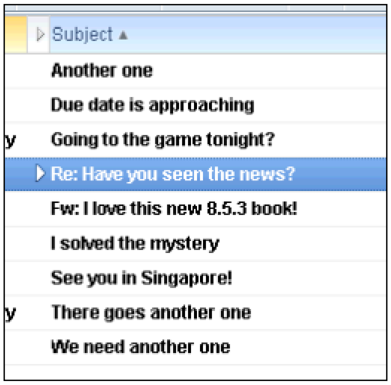
- Mail features
- Contacts
- Calendar and to-do enhancements
- Deployment enhancements
- Widgets and Xpages
- General changes
- LotusLive Notes

# Mail features

There have been a few changes to the default behavior of previous releases introduced in Lotus Notes 8.5.3.

## Sorting by Subject

One of the key new features is a change to the way subjects are sorted. Now, when sorting by subject, several keywords are ignored (see the following screenshot). These keywords include **Re** and **Fw**:



Subject ▴

Another one

Due date is approaching

Going to the game tonight?

Re: Have you seen the news?

Fw: I love this new 8.5.3 book!

I solved the mystery

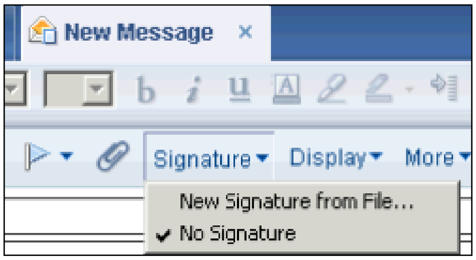
See you in Singapore!

There goes another one

We need another one

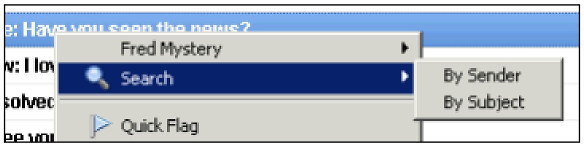
## Signature option

A new **Signature** option has been added. The end user can choose whether to add a signature, or have no signature, as shown in the following screenshot:


New Message ×
Signature ▾
Display ▾
More ▾
New Signature from File...
✓ No Signature

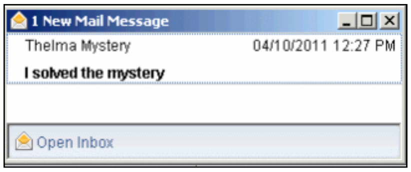
## Search functionality

The search functionality has seen improvement as well. There is now a new option to search by sender or subject, after right-clicking on an e-mail.


Fred Mystery
Search
Quick Flag
By Sender
By Subject

## New mail notification

New mail notification has seen a modification in behavior in Lotus Notes 8.5.3. When a new message arrives in the inbox, the client displays the subject in a pop-up notification and allows the contents of the message to be opened from it. The pop-up will appear in the lower right-hand corner. The end user can grab and drag the pop-up to pin it open. The following screenshot shows the pop-up notification:

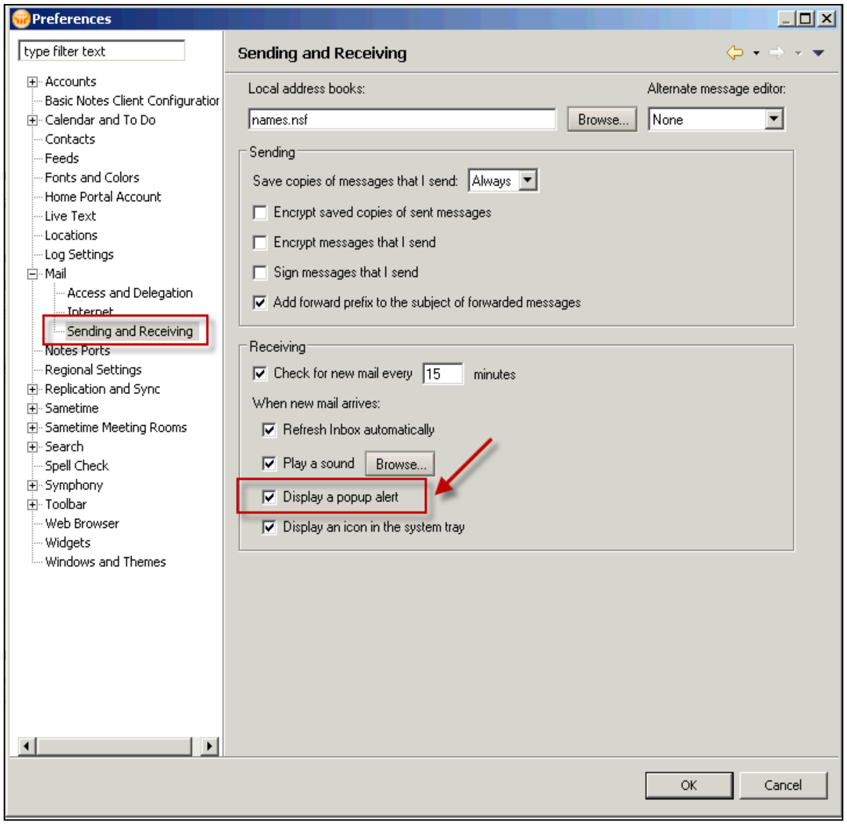


1 New Mail Message

Thelma Mystery 04/10/2011 12:27 PM

**I solved the mystery**

This can be controlled by a preference setting. The preference is under **Preferences | Mail.** It is called **Sending and Receiving**, as shown in the following screenshot. Checking the preference for displaying a pop-up alert, will enable this new pop-up functionality:



Preferences
type filter text
Accounts
Basic Notes Client Configuration
Calendar and To Do
Contacts
Feeds
Fonts and Colors
Home Portal Account
Live Text
Locations
Log Settings
Mail
Access and Delegation
Internet
Sending and Receiving
Notes Ports
Regional Settings
Replication and Sync
Sametime
Sametime Meeting Rooms
Search
Spell Check
Symphony
Toolbar
Web Browser
Widgets
Windows and Themes

Sending and Receiving

Local address books: names.nsf

Alternate message editor: None

Sending

Save copies of messages that I send: Always

☐ Encrypt saved copies of sent messages

☐ Encrypt messages that I send

☐ Sign messages that I send

☑ Add forward prefix to the subject of forwarded messages

Receiving

☑ Check for new mail every 15 minutes

When new mail arrives:

☑ Refresh Inbox automatically

☑ Play a sound

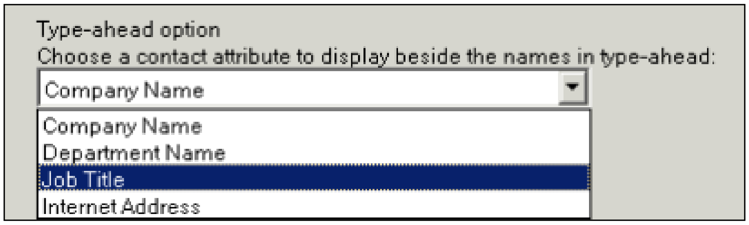
☑ Display a popup alert

☑ Display an icon in the system tray

Browse...
Browse...
OK
Cancel

## Type-ahead

Another new preference has been added around the type-ahead behavior. You can now choose to display an attribute such as **Company Name** for contacts in your **type-ahead option** list, as shown in the following screenshot. This is under the **Contacts** preference list:



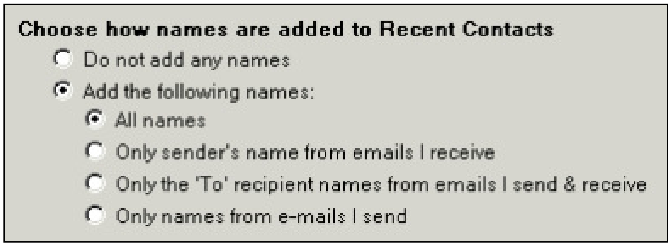
Type-ahead option

Choose a contact attribute to display beside the names in type-ahead: Company Name

## Contacts

There are two changes to Contacts functionality in Lotus Notes 8.5.3.

- The first change is to contacts that are in the mail file. Users can now perform actions in the mail file copy of their contacts, just as they would for contacts in their local address book, including preference settings.
- The second change is the additional preference settings to control the way recent contacts are populated.



**Choose how names are added to Recent Contacts**

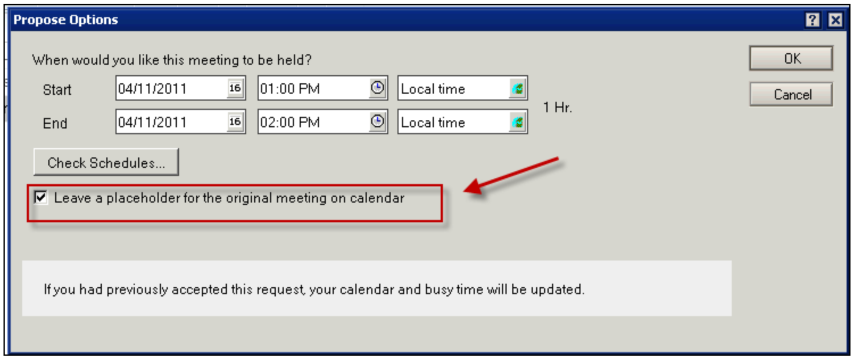
○ Do not add any names
● Add the following names:
  ● All names
  ○ Only sender's name from emails I receive
  ○ Only the 'To' recipient names from emails I send & receive
  ○ Only names from e-mails I send

## Calendar and to-do enhancements

The calendar and to-do enhancements in Lotus Notes 8.5.3 are discussed in the sections that follow:

## iCal functionality

Forwarding iCal subscriptions is now incredibly simple. Just right-click on the invitation and choose **Email to**. When offering a meeting counter-proposal, you now have the **Leave a placeholder for the original meeting on calendar** option, as shown in the following screenshot:



When would you like this meeting to be held?

Start 04/11/2011 01:00 PM Local time

End 04/11/2011 02:00 PM Local time

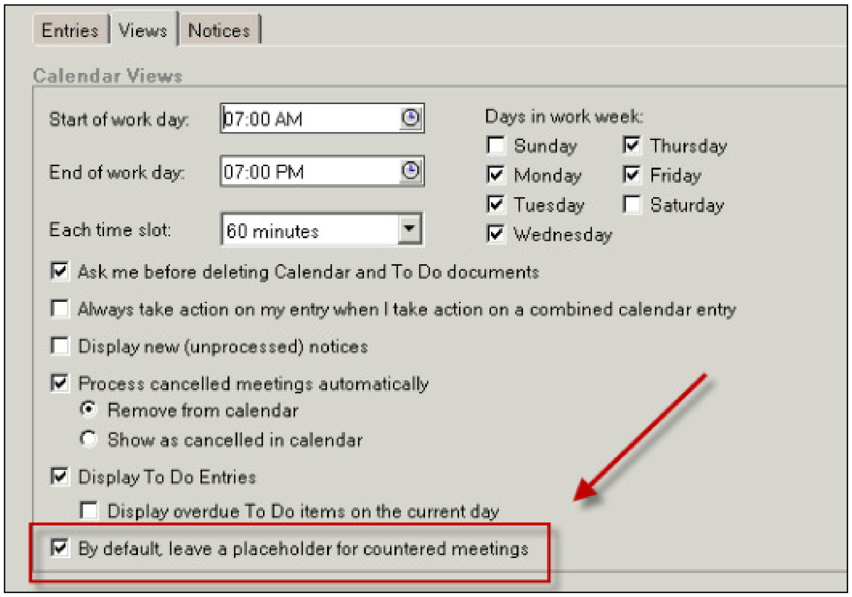
1 Hr.

☑ Leave a placeholder for the original meeting on calendar

If you had previously accepted this request, your calendar and busy time will be updated.

## Countered Meetings

As shown in the following screenshot, the default setting is to leave a countered meeting on your calendar. This can be controlled either with a preference or a policy. When the **By default, leave a placeholder for countered meetings** option is enabled, the countered meeting will be left on your calendar:



Start of work day: 07:00 AM

End of work day: 07:00 PM

Each time slot: 60 minutes

Days in work week:

☐ Sunday
☑ Monday
☑ Tuesday
☑ Wednesday
☑ Thursday
☑ Friday
☐ Saturday

☑ Ask me before deleting Calendar and To Do documents

☐ Always take action on my entry when I take action on a combined calendar entry

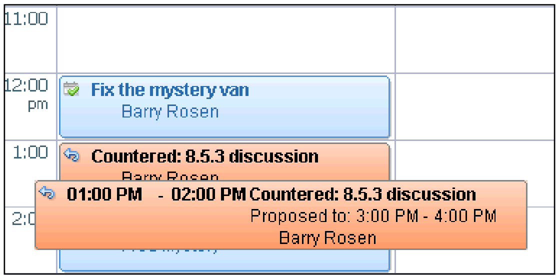
☐ Display new (unprocessed) notices

☑ Process cancelled meetings automatically
  ● Remove from calendar
  ○ Show as cancelled in calendar

☑ Display To Do Entries
  ☐ Display overdue To Do items on the current day

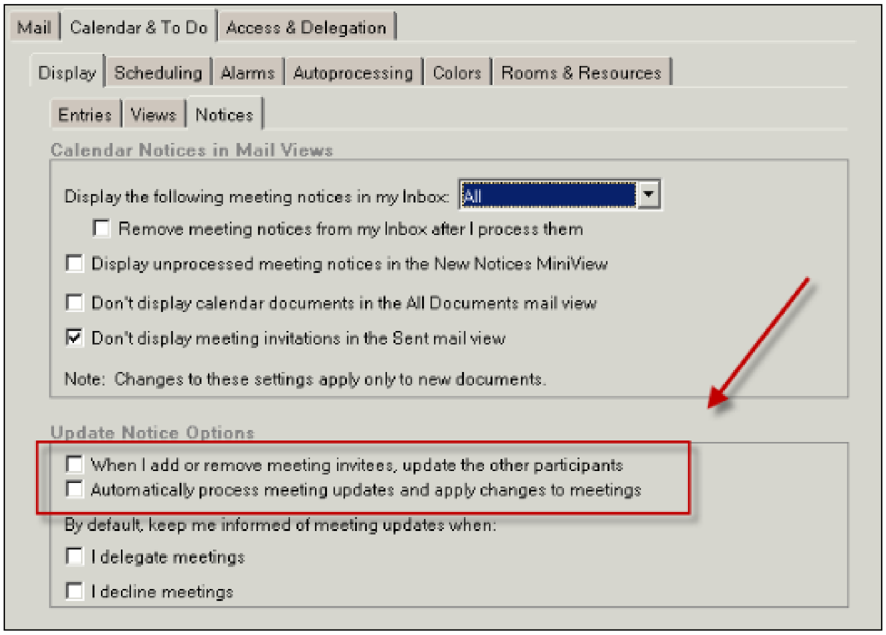
☑ By default, leave a placeholder for countered meetings

Countered meetings will display on the calendar as shown in the following screenshot. The countered meeting will be at the time the meeting was scheduled for. The meeting will have a unique color on the calendar to visually distinguish itself. When hovering over the calendar entry, the hover text will indicate the new proposed time. All invitee actions will still be available so that an invitee can modify the response:


11:00
12:00 pm
Fix the mystery van
Barry Rosen
1:00
Countered: 8.5.3 discussion
Barry Rosen
01:00 PM - 02:00 PM Countered: 8.5.3 discussion
Proposed to: 3:00 PM - 4:00 PM
Barry Rosen

## Auto-processing

A preference has been added to turn on invitee list updates and auto-processing information updates (see the following screenshot). This preference can also be set via a policy.


Mail
Calendar & To Do
Access & Delegation
Display
Scheduling
Alarms
Autoprocessing
Colors
Rooms & Resources
Entries
Views
Notices

Calendar Notices in Mail Views

Display the following meeting notices in my Inbox: All

☐ Remove meeting notices from my Inbox after I process them

☐ Display unprocessed meeting notices in the New Notices MiniView

☐ Don't display calendar documents in the All Documents mail view

☑ Don't display meeting invitations in the Sent mail view

Note: Changes to these settings apply only to new documents.

Update Notice Options

☐ When I add or remove meeting invitees, update the other participants

☐ Automatically process meeting updates and apply changes to meetings

By default, keep me informed of meeting updates when:

☐ I delegate meetings

☐ I decline meetings

When the **When I add or remove meeting invitees, update other participants** option is checked, all participants are notified when adding or removing invitees. This is sent as an informational update to the meeting. Be aware that in some cases of repeating meetings, enabling this can result in multiple updates being sent in order to maintain data.

Enabling **Automatically process meeting updates and apply changes to meetings** option, will automatically apply any non-time changes to accepted meetings. This removes the step of the user having to update the calendar from the inbox or having to open the calendar entry to update it. This will not apply to reschedules. A reschedule will still require the user to accept or decline the reschedule.

# Deployment enhancements

The major deployment enhancement in the Lotus Notes 8.5.3 client is the introduction of the Notes multiuser migration assistant tool that will allow an administrator to migrate a Notes single-user installation to a Lotus Notes multi-user installation.

## Single-user to multiuser migration tool

The Notes multiuser migration assistant tool can be run on any Lotus Notes 8.x release prior to upgrading to a new release. Once migrated from a single user to a multiuser within the same 8.x release, you can then upgrade from that release to a new release. It will provide a method to convert a single-user installation to a multiuser installation for both the Basic and Standard clients. If you have a simulated multiuser installation (the user's data directory is on a mapped drive), you can now convert this configuration to a true multiuser installation.

> The tool is available for Windows platform deployments (Windows XP, Vista and 7) only and must be run as an administrator. It does not have a Graphical User Interface or a non-English version.

Migration is supported for the Lotus Notes client only, single-user installations. If you try to run the tool on an all-client or an existing multiuser configuration, an "unsupported configuration" message will appear.

The tool runs a supplied Visual Basic script (`MUMigrationAssistant.vbs`), which runs via a customized configuration file (`MUMigrationAssistant.ini`). The configuration file enables you to customize the migration for your unique environment. To find these tools, look in the Utility folder of the Notes 8.5.3 install kit.

The configuration file can be edited to add user specific details such as the location of the current and new data directories. You can also enable read/write permissions on those directories. The `MUMigrationAssistant.vbs` tool will then perform the necessary migration operations, including modification of user-specific Notes.ini values and registry setting changes required. You can run the migration tool in two modes—dry run and actual. In dry run mode, a report indicating what the tool would have done will be generated. In actual mode it performs the migration.

## Widgets and Xpages

Live Text is now functioning in MIME e-mails as well. Now, data will be recognized as Live Text in MIME e-mails. Lotus Notes 8.5.3 has introduced a new public Widget Provider API. This will allow developers to create custom widget types for customer applications. Then widgets can be created by power users and deployed to your end users.

A new widget creation wizard was introduced. It is for creating a widget from an XPages application running in the Lotus Notes client. The new wizard is available from the **Configure a Widget from the Current Context** toolbar button. The wizard provides an easy way to display an XPages application in the sidebar, in addition to a new tab or window.

Web widgets can be launched in an external browser. When creating the web widget you can specify whether you want the web widget to launch in the internal or the external browser. Web widgets have been enhanced to support web applications using the local web container. The web container can now change ports on restart. Additionally, an enhanced **Widgets** catalog has been introduced that is based on XPages technology. It has added social features such as ratings, tagging, download count, and commenting.

## General changes

Starting in Lotus Notes 8.5.3, RHEL 6.0 desktop, Citrix XenApp 6.0 are now supported. There is also enhanced 64-bit toleration for Windows. Lotus Notes 8.5.3 continues to make Mac usability improvements and support is given for e-mail gestures. Also, on the Mac, you can drag one or grouped files to the Lotus Notes icon on your dock. When doing this, a new mail message will be created with those files attached.

### Embedded components

The embedded components have been upgraded. The embedded version of Sametime is now 8.5.1. It was previously 8.02. Embedded Symphony is now 3.0. It was previously 1.3. The embedded Symphony 3.0 changes will be discussed in the next chapter.

### Exchange Migration Tool

The Exchange Migration Tool (`Nupgrade.exe`) is discontinued in the Lotus Notes 8.5.3 release.

## LotusLive Notes

LotusLive is an IBM suite of business collaboration and network based cloud services. The LotusLive suite provides the following services:

- State of the art enterprise e-mail
- Collaboration tools
- Online meetings
- File management tools
- Various support and enterprise retention tools

These tools are completely integrated with users that are not only hosted in the cloud, but also with end users that are in effect "guests". Using LotusLive, you can work remotely, manage remote teams, or use LotusLive as an integration point for disparate enterprise systems in your organization. LotusLive also provides all of these services in a secure designed cloud environment.

### LotusLive Notes enhancements

The LotusLive enhancements were introduced in the Lotus Notes 8.5.3 client, to strengthen the LotusLive Notes experience.

Client-server transactions network toleration has been improved. This includes an analysis of current transactions and reduction, or combination. Network latency issues that the user might experience have also been improved.

There is now the ability to assign and enforce policies at a machine at machine-level. This will allow an administrator to target specific policy settings to specific machine configurations and allow different settings based on machine or environmental characteristics.

We are seeing the LotusLive Notes offering influence the client code to benefit all users, whether their mail is on premises or in the cloud.

# Summary

In this chapter, we have reviewed the major new features offered by Lotus Notes 8 though the 8.5.3 client. We also provided a high-level overview to the new LotusLive offering. Many of these features involve enhancements to the client user interface itself. Other new features include enhancements to mail, calendar, and contacts. It is exciting to see the increasing improvements in each release, being made by Lotus Notes. These features significantly broaden the power and usefulness of the Notes client, while providing greater ease of use (and potentially minimal retraining)—an important consideration for any company planning to upgrade to Lotus Notes 8.5.3.

In the next chapter, we will examine the Lotus Symphony productivity tools that are included with the Lotus Notes 8.5.3 client.

# 3

# Productivity Tools

With Lotus Notes 8.5 and 8.5 client come a new suite of productivity tools that support the OASIS **Open Document Format** (**ODF**). ODF is an international standard that provides support for multiple file formats for word processing, presentations, and spreadsheets. By adopting this format, IBM has allowed Lotus Notes users to read and save documents in the Microsoft Office file format. Both can be saved as ODF documents or as PDF format documents. IBM/Lotus ships these productivity tools in Lotus Notes 8.5 and these tools can also be downloaded as the Lotus Symphony Suite (`www.lotus.com`). Starting with the 8.5.3 Lotus Notes client, the embedded version of Symphony is now 3.0, an upgrade from the prior 1.3 release.

The advantage of using the productivity tools with ODF is that you no longer have to purchase an application from a single vendor in order to share and save your documents. Using a non-commercial ODF product will allow you to avoid having to maintain licenses, and will also allow you to stop worrying about your software reaching the end of its shelf life. These benefits can lead to a lower **Total Cost of Ownership** (**TCO**) for maintaining software for document-based data.

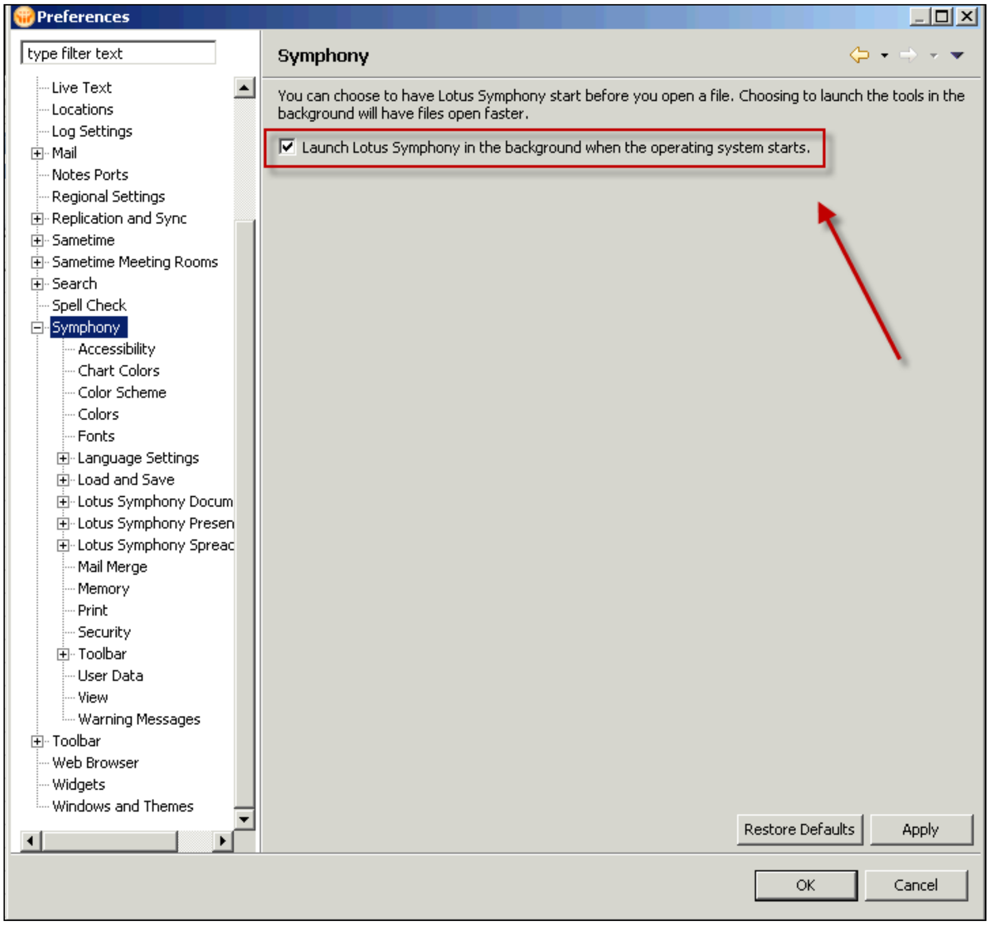
In this chapter, we will cover the following topics:

- Productivity tools integration with Lotus Notes 8.5.3
- Symphony and Domino policies
- Lotus Symphony Documents
- Lotus Symphony Presentations
- Lotus Symphony Spreadsheets
- Lotus Symphony 3.0

# Productivity tools integration with Lotus Notes 8.5.3

The Eclipse architecture of the Lotus Notes 8.5.3 client supports the integration of other applications. Lotus has utilized this architecture to integrate another Lotus product, Symphony, into the Lotus Notes client. This allows the end user to access productivity tools directly in the Lotus Notes client, eliminating the need for deploying separate software packages for productivity tools.

The preferences for the tools are in the **Preferences** interface. When opening the preference options for the productivity tools, you will see a view as in the following screenshot:


Preferences
type filter text
Live Text
Locations
Log Settings
Mail
Notes Ports
Regional Settings
Replication and Sync
Sametime
Sametime Meeting Rooms
Search
Spell Check
Symphony
Accessibility
Chart Colors
Color Scheme
Colors
Fonts
Language Settings
Load and Save
Lotus Symphony Docum
Lotus Symphony Presen
Lotus Symphony Spreac
Mail Merge
Memory
Print
Security
Toolbar
User Data
View
Warning Messages
Toolbar
Web Browser
Widgets
Windows and Themes
Symphony
Restore Defaults
Apply
OK
Cancel

You can choose to have Lotus Symphony start before you open a file. Choosing to launch the tools in the background will have files open faster.

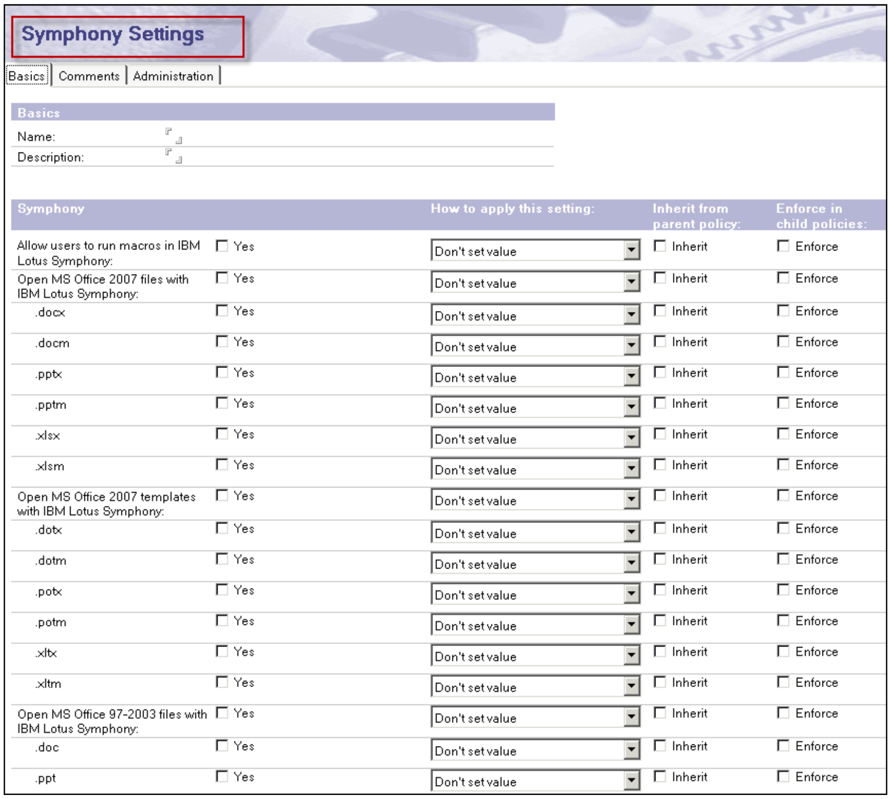
☑ Launch Lotus Symphony in the background when the operating system starts.

This setting will load a file called `soffice.exe`. This file corresponds to a stub that remains resident so that the tools will launch more quickly. If you do not want this to occur, choose the setting not to pre-load the productivity tools.

The productivity tools are independent of the Lotus Domino 8.5.3 server. This means that the tools will function without a Lotus Domino 8.5.3 server. They can even be launched when the Lotus Notes client is not running. To do this, either double-click on the icon on your desktop, or select the program from the **Start** menu.

# Symphony and Domino policies

Lotus Domino polices allow the Domino administrator to assign settings to users' Lotus Notes clients, either explicitly or by organizational units. A Domino administrator can control Symphony through the **Symphony Settings** policy document. This gives the administrator the ability to control who can and cannot use Symphony  (and also control whether or not macros are permitted to run). It will also control what document types will be opened by Symphony. These settings are shown in the following screenshot:



| Basics | |
|---|---|
| Name: | |
| Description: | |

| Symphony | | How to apply this setting: | Inherit from parent policy: | Enforce in child policies: |
|---|---|---|---|---|
| Allow users to run macros in IBM Lotus Symphony: | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| Open MS Office 2007 files with IBM Lotus Symphony: | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .docx | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .docm | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .pptx | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .pptm | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .xlsx | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .xlsm | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| Open MS Office 2007 templates with IBM Lotus Symphony: | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .dotx | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .dotm | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .potx | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .potm | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .xltx | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .xltm | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| Open MS Office 97-2003 files with IBM Lotus Symphony: | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .doc | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |
| .ppt | ☐ Yes | Don't set value | ☐ Inherit | ☐ Enforce |

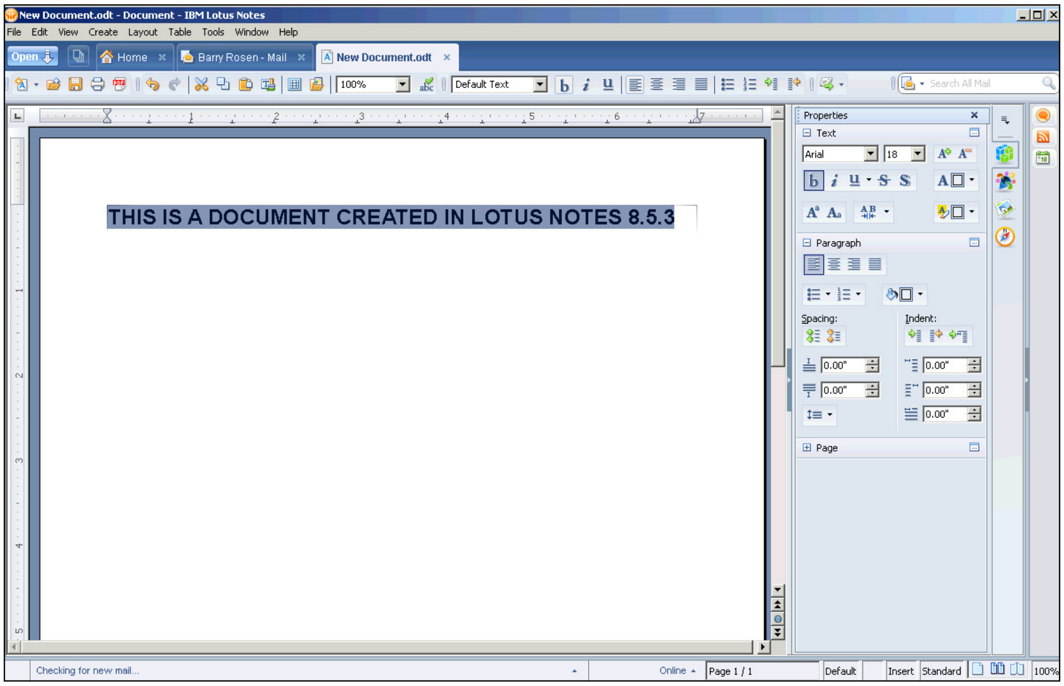
There are three productivity tools:

- Lotus Symphony Documents
- Lotus Symphony Presentations
- Lotus Symphony Spreadsheets

These productivity tools are also referred to as document editors, as you use them to create and edit documents in various formats (word documents, presentations, and spreadsheets, respectively).

# Lotus Symphony Documents

The Lotus Symphony Documents productivity tool is a document editor that allows you to create documents containing graphics, charts, and tables. You can save your documents in multiple formats. Lotus Symphony Documents has a spell checker, which provides instant corrections, and many other tools that can be used to enhance documents. This is the same spell checker that was used for Lotus Notes. No matter what the complexity of the documents that you are creating or editing, this productivity tool can handle the job. The following screenshot shows an example of a document created in Lotus Notes 8.5.3 using the embedded Lotus Symphony document productivity tool:



THIS IS A DOCUMENT CREATED IN LOTUS NOTES 8.5.3

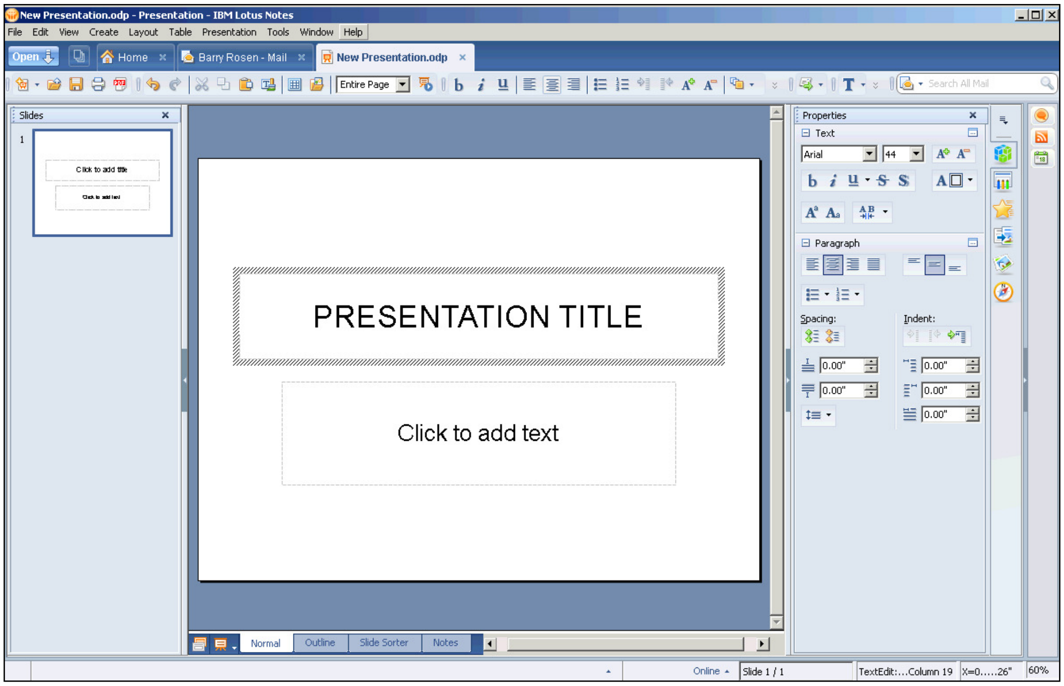
New Document.odt - Document - IBM Lotus Notes
File Edit View Create Layout Table Tools Window Help
Open
Home
Barry Rosen - Mail
New Document.odt
100%
Default Text
Search All Mail
Properties
Text
Arial
18
Paragraph
Spacing:
Indent:
0.00"
Page
Checking for new mail...
Online
Page 1 / 1
Default
Insert
Standard
100%

# Lotus Symphony Presentations

The Lotus Symphony Presentations tool will allow you to create professional presentations featuring multimedia, charts, and graphics. This tool comes with templates that you can use to create your slide shows. If you wish, you can create and save your own templates as well.

You can save a template in a different directory, but you'll need to navigate to it when creating a new presentation from that template.

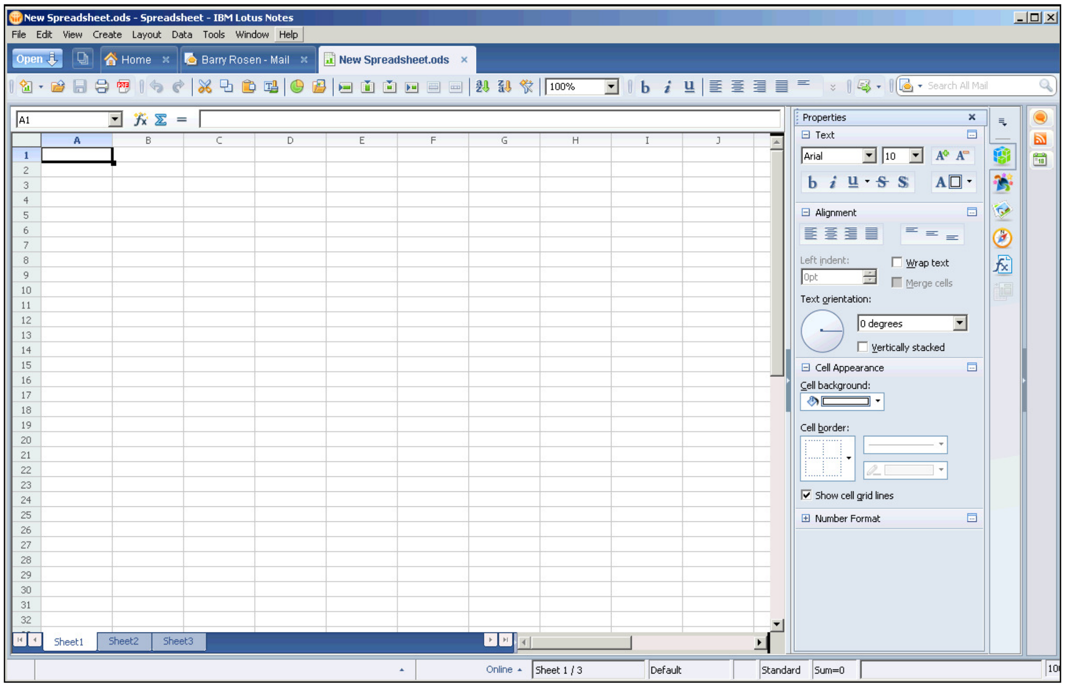
Not only can you apply dynamic effects to the presentations, but you can also publish them in a variety of formats. The following screenshot is of a sample presentation created with Lotus Symphony Presentations embedded in the 8.5.3 Lotus Notes client:


New Presentation.odp - Presentation - IBM Lotus Notes
File Edit View Create Layout Table Presentation Tools Window Help
Open
Home
Barry Rosen - Mail
New Presentation.odp
Entire Page
Search All Mail
Slides
1
Click to add title
Click to add text
PRESENTATION TITLE
Click to add text
Properties
Text
Arial
44
Paragraph
Spacing:
Indent:
0.00"
0.00"
0.00"
0.00"
0.00"
Normal
Outline
Slide Sorter
Notes
Online
Slide 1 / 1
TextEdit:...Column 19
X=0.....26"
60%

# Lotus Symphony Spreadsheets

As the name indicates, Lotus Symphony Spreadsheets is a tool used to create spreadsheets. You can use this tool to calculate, display, and analyze your data. As with other spreadsheet applications, the tool allows you to use functions to create formulae that perform advanced calculations with your data.

One feature gives you the ability to change one factor in a calculation containing many factors so that the user can see how it affects the calculation. This is useful when exploring multiple scenarios to determine your outcome. One example of this is to see how changing the projected sales will change your revenue. Lotus Symphony spreadsheets also have a dynamic function that will automatically update charts when the data changes. You can see an example of a Lotus Symphony Spreadsheet in the following screenshot:


New Spreadsheet.ods - Spreadsheet - IBM Lotus Notes
File Edit View Create Layout Data Tools Window Help
Open
Home
Barry Rosen - Mail
New Spreadsheet.ods
100%
Search All Mail
A1
A B C D E F G H I J
Properties
Text
Arial
10
Alignment
Left indent:
0pt
Wrap text
Merge cells
Text orientation:
0 degrees
Vertically stacked
Cell Appearance
Cell background:
Cell border:
Show cell grid lines
Number Format
Sheet1 Sheet2 Sheet3
Online
Sheet 1 / 3
Default
Standard
Sum=0

# Lotus Symphony 3.0

IBM Lotus Symphony is a suite of Lotus applications for editing, creating, and sharing spreadsheets, text, and presentations.

The Lotus Symphony 3.0 product is the latest version of the software, and is now built into Lotus Notes 8.5.3. The following sections highlight some of the new features.

# New features

There are now new sidebars containing enriched property sections and panels across different editors, with the support of sidebar panel management to show or hide sidebar panels.

There is the ability to customize toolbar content and layout, as well as to create new business cards and labels. Also, you can now insert OLE, audio, and video files into your documents.

Symphony 3.0 has enabled file encryption and password protection mechanisms when saving files as Microsoft Word and Excel files.

# Enhancements

There are many new enhancements in Symphony 3.0. Graphic object rendering has improved through improved anti-aliasing. This will really make the graphics stand out. The main menu and toolbar design have been refined for better usability and consistency across the document editors. Dragging and dropping a file to a tab or empty workbench will now open the file and will save time and clicks. There is now a new progress bar when launching and loading/saving files. This provides a visual status on how much of the document has been opened. Finally, another significant enhancement is with online help content and structure. By streamlining the help, you can get the answer you need faster.

The following features are now disabled in Symphony 3.0:

- Importing of SmartSuite files
- Print previewing in a presentation
- Creation of new XForm documents
- Connector support in the document editor

# Summary

In this chapter, we have reviewed the Lotus Symphony 3.0 productivity tools provided with the Lotus Notes 8.5.3 client. These tools include Lotus Symphony Documents, Lotus Symphony Presentations, and Lotus Symphony Spreadsheets. We have briefly examined how these tools are controlled by Domino policy documents, and how they are integrated with the Lotus Notes 8.5.3 client.

In the next chapter, we will examine the features of the Lotus Domino 8.5.3 server.

# 4

# Lotus Domino 8.5.3 Server Features

There are a number of significant improvements and new features added to the Lotus Domino 8, 8.5, and 8.5.3 servers. As with each of the other chapters in this book, all features noted for 8.x releases are also included in the 8.5 and 8.5.3 Lotus Domino releases. Also these features include mail-related features such as message recall and immediate "Out-of-Office" notifications. Other core components have been enhanced, such as cluster replication, Domino Domain Monitoring, and security. Server performance has also been improved, while maintaining backwards compatibility and ease of upgrade, which does not require changes to the hardware, the operating system, or even the **On-Disk Structure** (**ODS**). One of the biggest new features for Domino 8.5 is the **Domino Attachment Object Service** (**DAOS**). This chapter reviews the new features and enhancements in Lotus Domino 8, 8.5, and 8.5.3. We will discuss the following topics:

- End user and messaging enhancements
- Administration enhancements
- Performance enhancements
- Domino Directory and security enhancements
- Enhanced integration with IBM servers and tools
- Lotus Domino 8.5.3 new server enhancements

# End user and messaging enhancements

There are a number of new features provided to both end users and administrators in Lotus Domino 8/8.5. This section will focus on the following:

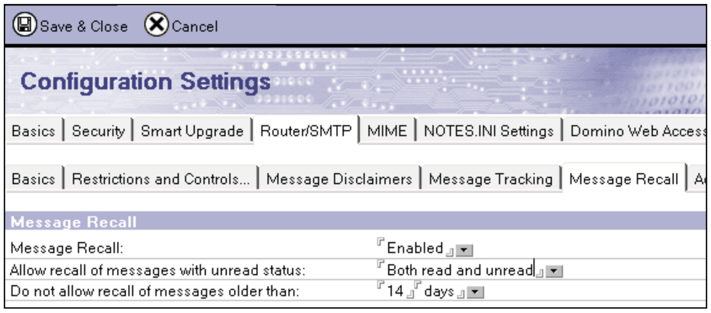
- Message recall
- "Out-of-Office" messages
- Enhanced support for the mail thread feature
- Automated inbox cleanup
- Reverse-path setting for forwarded messages
- Rejecting ambiguous names and denying mail to groups

# Message recall

You can now recall mail messages that have been sent to other users within a Lotus Domino environment. Previously, administrators needed to manually delete a message that had been inadvertently sent in error. This process was painstaking and often did not fully provide the ability to recall messages. The new message recall feature will allow the end users to initiate the recall of messages, and (as long as the message has been routed only through the NRPC protocol) the recipient's mail server will attempt to recall the message.

The message recall feature will only work for users using Lotus Notes 8 and above, and for mail templates with servers running Domino 8 and above. It will work across domains as long as the message was only routed via NRPC. Messages that are sent over SMTP through the Internet will not be recallable.

The message recall feature is enabled and configured for the entire Domino 8.5/8.5.3 environment through a Server Configuration document. This Server Configuration document allows administrators to configure the service to recall messages, depending on whether or not they have been read by the end user, or depending on the age of the message:


Save & Close
Cancel
Configuration Settings
Basics
Security
Smart Upgrade
Router/SMTP
MIME
NOTES.INI Settings
Domino Web Acces
Basics
Restrictions and Controls...
Message Disclaimers
Message Tracking
Message Recall
A

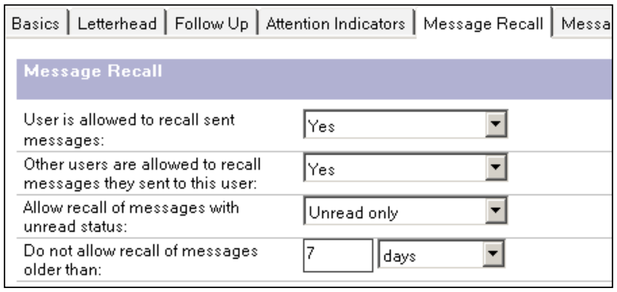
**Message Recall**

Message Recall: Enabled

Allow recall of messages with unread status: Both read and unread

Do not allow recall of messages older than: 14 days

In addition to a global setting for the environment, message recall can be applied more granularly through the use of a mail policy. The mail policy can be configured to change the parameters for the end users, but the use of a policy does not override the global configuration. Within the policy document, administrators can set whether the end users can recall messages and whether messages sent to end users can be recalled. In addition, the policy can define whether or not to recall messages based on whether they have been read by the end user or have passed a predefined age. The following screenshot shows the **Message Recall** settings:


Basics
Letterhead
Follow Up
Attention Indicators
Message Recall
Messa

**Message Recall**

User is allowed to recall sent messages: Yes

Other users are allowed to recall messages they sent to this user: Yes

Allow recall of messages with unread status: Unread only

Do not allow recall of messages older than: 7 days

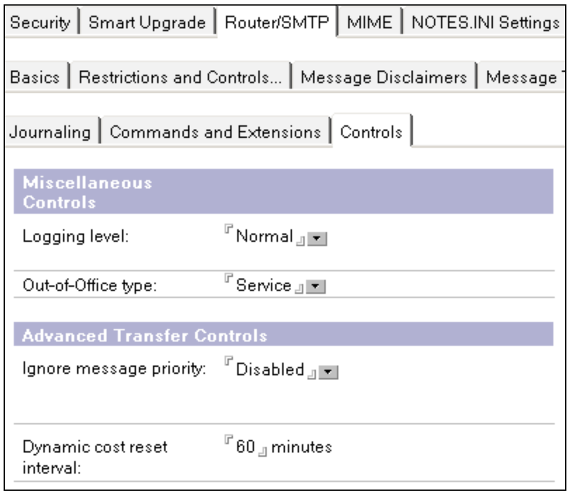
# "Out-of-Office" messages

In previous releases of Lotus Domino, the "Out-of-Office" message's functionality was only offered as an agent. As a result, there was a delay in processing "Out-of-Office" messages for the end users. Typically, senders of messages to end users that had enabled their "Out-of-Office" agent would not receive notice for up to four hours based on the default configuration, but this could vary greatly based on internal implementations. Some environments were modified to inform senders of their "Out-of-Office" status at a more frequent interval. This shortening of the interval could affect the performance of the servers, because they would need to process the agent on a more frequent basis. The Lotus Domino 8.5 environment allows administrators to configure the "Out-of-Office" feature as a *service* on the server, rather than as an *agent*.

The configuration of the "Out-of-Office" feature as a service is not a requirement in Lotus Domino 8.5.3—the environment can continue to be configured via an agent. It is important to note that the utilization of Lotus Notes 8.5, the Notes 8.5 mail template, and a Domino 8 or 8.5 server is required for this feature to work. If the Lotus Notes 8 template or all servers (including cluster pairs) are not running at least Domino 8, you must configure the "Out-of-Office" feature as an agent.

> You can mix any version of 8 and 8.5.3 together for this service to work correctly.

Configuring the "Out-of-Office" feature as a service allows Domino 8.5.3 to send the "Out-of-Office" notifications as soon as messages are received, after the server and end user mail rules are applied. Another enhancement of running the "Out-of-Office" feature as a service is that once an end user enables the feature, upon completion of the "Out-of-Office" time frame, the service is turned off after the first message is acted upon or through normal server maintenance routines. The configuration for the "Out-of-Office" feature is shown in the following screenshot:



Miscellaneous Controls

Logging level: Normal

Out-of-Office type: Service

Advanced Transfer Controls

Ignore message priority: Disabled

Dynamic cost reset interval: 60 minutes

## Enhanced support for the mail thread feature

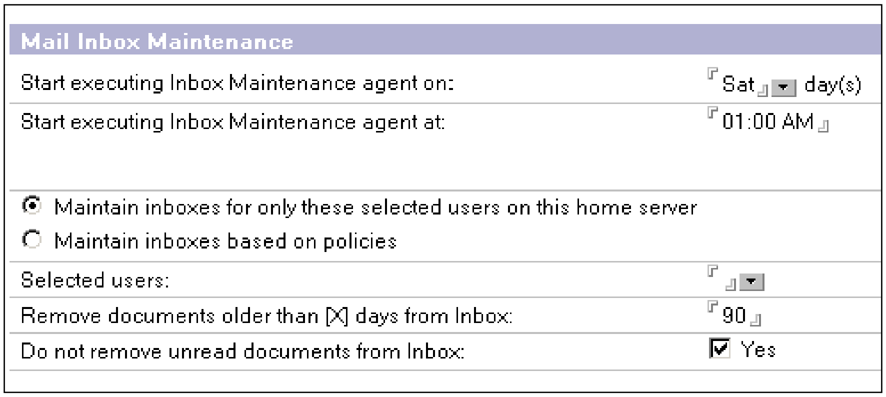
Mail threads were introduced in early versions of Lotus Notes and Lotus Domino. The earlier implementation of mail threads within the inbox in Lotus Notes had some limitations, specifically when messages within the mail thread were deleted, thus breaking the thread. Additionally, messages that were received from outside systems were not included in the mail thread. Lotus Domino 8 (as well as 8.5.3) support for client-based mail threads has been enhanced to ensure that the threads are persistent and that deletion or archiving of messages within the thread will not cause problems. In addition, enhanced support for messages outside of the Domino environment has been extended and can be included within the mail threads.

The enhanced mail features are delivered through the Domino server to the end user. Therefore, the Domino 8.5.3 mail thread functionality is not dependent on Notes 8.5.3 (as the Notes 7 client will provide the mail threads within the *Inbox* view), the Notes 8.5.3 mail template, or the Lotus Domino 8.5.3 server for the senders or intermediate servers that will route the mail. The end user's mail server must be running at least Domino 8 for it to deliver the enhanced functionality.

# Automated inbox cleanup

An excessive number of documents in a single view can be a significant end-user performance issue, particularly the primary view when the database is open. The number of documents in the *Inbox* view within the mail's database can hinder performance by increasing the time required to build the view. When end users leave all of their incoming messages in the *Inbox* view and do not archive messages or place them in folders, the inbox can become unwieldy. Lotus Domino 8 introduced the automated inbox cleanup process that removes messages from the inbox. These features are also included in Lotus Notes and Lotus Domino 8.5.3.

The automated inbox cleanup feature can either be set through the Server Configuration document or through the use of a mail policy. The Server Configuration document is shown in the following screenshot:



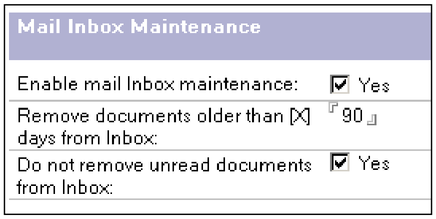
**Mail Inbox Maintenance**

| | |
|---|---|
| Start executing Inbox Maintenance agent on: | Sat day(s) |
| Start executing Inbox Maintenance agent at: | 01:00 AM |

● Maintain inboxes for only these selected users on this home server
○ Maintain inboxes based on policies

| | |
|---|---|
| Selected users: | |
| Remove documents older than [X] days from Inbox: | 90 |
| Do not remove unread documents from Inbox: | ☑ Yes |

The following screenshot is from the mail settings policy document:



**Mail Inbox Maintenance**

Enable mail Inbox maintenance: ☑ Yes

Remove documents older than [X] days from Inbox: 90

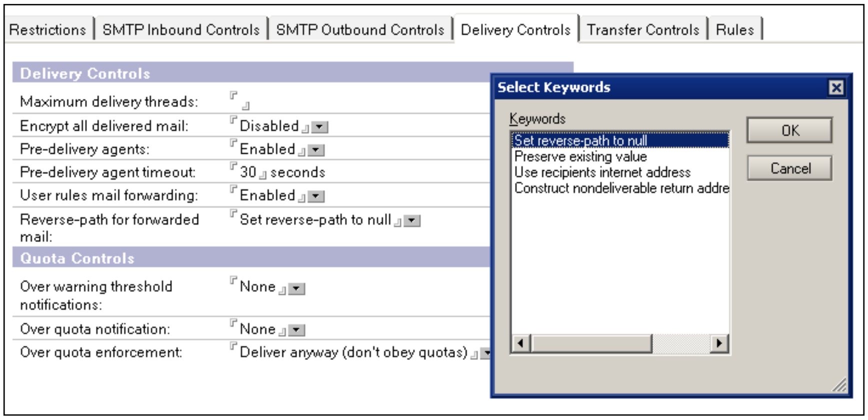
Do not remove unread documents from Inbox: ☑ Yes

This feature doesn't require Lotus Notes 8.5.3 or the Lotus Notes 8.5.3 mail template, but your mail databases need to be hosted on at least a Lotus Domino 8 server. Through the Server Configuration document and the mail policy document, administrators can schedule the inbox maintenance task based on the day and time. When it runs, it removes from the inbox the messages that meet the criteria set for the task. The messages are still in the mail file and can be viewed in the **All Documents** view.

Administrators can add this functionality for all users or a selected group of users. The inbox cleanup can occur within a specified time frame and can leave documents in the inbox if they have not been read.

# Reverse-path setting for forwarded messages

As spam filters and other technologies have proliferated, the use of reverse lookups has increased for ensuring that the proper address is used, so that the messages are not rejected. When a mail rule is set to forward messages within Lotus Domino 8.5.3 and the forwarded message contains a null value, some spam filters may reject the message. The **Reverse-path for forwarded mail** setting feature in Lotus Domino 8.5.3 allows the setting of the path to ensure that messages are not rejected. Within the Server Configuration document, administrators have the ability to set the reverse-path for forwarded mail, as shown in the following screenshot:


Restrictions
SMTP Inbound Controls
SMTP Outbound Controls
Delivery Controls
Transfer Controls
Rules
Select Keywords
Keywords
Set reverse-path to null
Preserve existing value
Use recipients internet address
Construct nondeliverable return addre
OK
Cancel

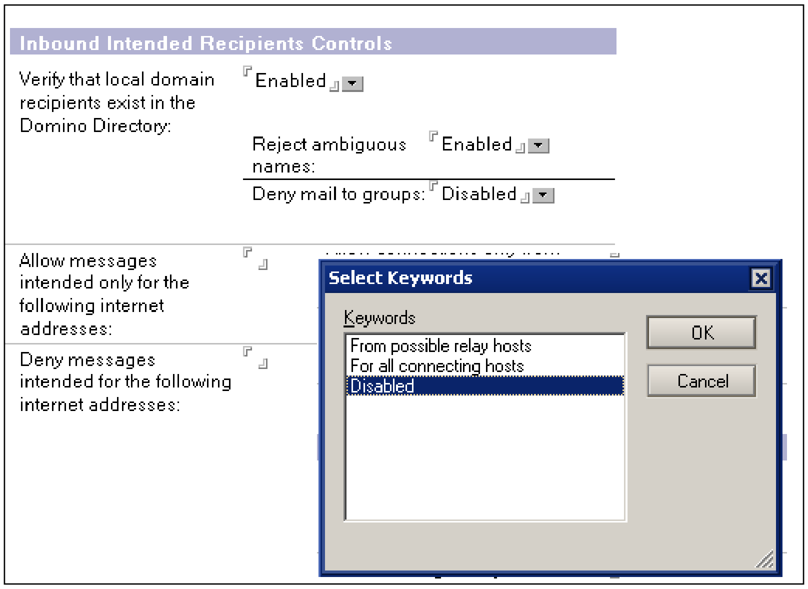
| Delivery Controls | |
|---|---|
| Maximum delivery threads: | |
| Encrypt all delivered mail: | Disabled |
| Pre-delivery agents: | Enabled |
| Pre-delivery agent timeout: | 30 seconds |
| User rules mail forwarding: | Enabled |
| Reverse-path for forwarded mail: | Set reverse-path to null |
| **Quota Controls** | |
| Over warning threshold notifications: | None |
| Over quota notification: | None |
| Over quota enforcement: | Deliver anyway (don't obey quotas) |

There are two settings in the **Reverse-path for forwarded mail** field. The default value is **Set reverse-path to null**. When this value is set, delivery status reports are not sent to the sender. The other option is **Preserve existing value**. This value will leave the setting as it is. With this setting, the sender may receive delivery failure reports.

## Rejecting ambiguous names and denying mail to groups

In some SMTP configurations, the environment is set up so as to conduct lookups to the directory before routing messages within the infrastructure. When this setting is configured, the server will reject ambiguous addresses for end users and groups.

Upon rejection of the message, a return message is routed to inform the sender that the message has been rejected by the Lotus Domino environment based on a corporate policy. This configuration setting is shown in the following screenshot:



Inbound Intended Recipients Controls

Verify that local domain recipients exist in the Domino Directory: Enabled

Reject ambiguous names: Enabled

Deny mail to groups: Disabled

Allow messages intended only for the following internet addresses:

Deny messages intended for the following internet addresses:

There are a number of other new and enhanced features in Lotus Domino 8.5.3, including router group expansion, transfer and delivery of delay reports, and improved HTML rendering for e-mail.

# Administration enhancements

Lotus Domino administrators welcomed a number of important enhancements in Lotus Domino 8/8.5 including the following:

- Enhancements to the end user renaming process
- Enhancements to the **Administration Process** (**AdminP**)
- Enhancements to the **Domino Domain Monitoring** (**DDM**) feature

## The end user renaming process

The end user renaming process in Lotus Domino is executed by leveraging the AdminP. When the request for a change in the user's name or shift in the hierarchy is submitted, the AdminP begins to execute the renaming process in all databases throughout the environment. This ensures that the **Access Control Lists** (**ACLs**), reader fields, and so on are updated with the new information. These requests are very intensive and (depending on the size and complexity of the environment) can take a considerable amount of time.

In Lotus Domino 8, the names list feature builds a list of author and reader names found in the database, which the AdminP can then use. If the name is found in the list, the AdminP will make the appropriate changes to the fields. This new feature will increase the efficiency with which the AdminP executes name changes throughout the environment. The limitation for the names list is 4000. If the list is larger, the AdminP reverts to looking through the entire database to identify the fields where the name exists.

If your servers are running at least Domino 8 and have the new ODS 48 applied (see *New ODS* section later in this chapter), then the AdminP will be able to use this new names list feature.

## The Administration Process (AdminP)

The Lotus Domino environment invokes the Administration Process (AdminP) for executing requests (user renaming, database moves and deletes, and so on) and uses the AdminP database, which is built from the `Admin4.ntf` template. A replica copy of the database is placed on every server. As the AdminP requests are generated, they are recorded on the administration server and then pushed out via replication to the other Domino servers. The servers will then look up and execute the tasks as required.

Starting in Lotus Domino 8, requests that are generated for a specific server will be directly placed on that server as long as there is connectivity between the servers. The implementation of placing requests directly on the executing server should speed up the processing of the requests, because the replication of the AdminP database is removed from the process (which can cause some delays due to scheduling issues). There is no dependency on Lotus Notes 8.5.3 or the Lotus Notes 8.5.3 template to deliver this functionality, but the source server must be upgraded to at least Lotus Domino 8.

This enhancement of AdminP is the default setting in Lotus Domino 8.5.3. To disable this feature, set the following parameter in the `notes.ini` settings:

```
ADMINP_DONT_ATTEMPT_DIRECT_DEPOSIT=1
```

## The AdminP statistics

AdminP, starting with Lotus Domino 8.5, will generate statistics reports during the administration request processing. The AdminP will record statistics to help monitor various portions of the administration process tasks. The `Admin4.nsf` database (Administration Requests database) provides the basis for all administration process requests scheduled for processing. Administrators can manage and view the process of any administration request as it is processed by the AdminP.

# Domino Domain Monitoring (DDM)

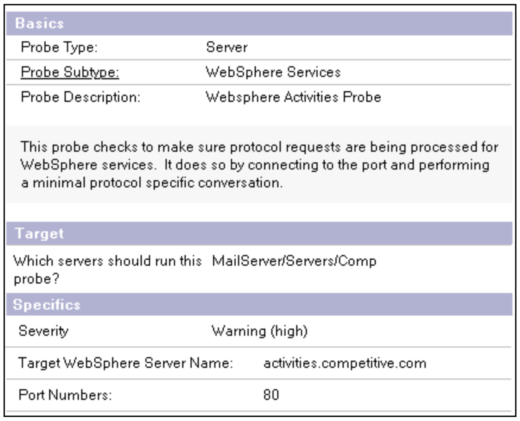
Domino Domain Monitoring (DDM) was introduced in Lotus Domino 7. The goal of DDM is to reduce the administrative workload required to troubleshoot and manage issues in the Domino environment. Prior to the introduction of DDM, administrators had to review a number of sources to collect the appropriate information to conduct problem determination. Lotus Domino 8 included several enhancements to DDM.

## Domino Configuration Tuner (DCT)

The **Domino Configuration Tuner** (**DCT**) evaluates server settings according to a preset list of best practices. Servers in a single domain can be analyzed together or individually. DCT will be covered in more detail in *Chapter 11*, *Domino Configuration Tuner*.

## WebSphere Services probe

Lotus Domino 8 added the ability to monitor the Lotus Connections Activities function (the Lotus Connections software is not bundled with Domino, as this function only enhances the monitoring capabilities), which is hosted on a WebSphere server. A new WebSphere Services probe has been introduced to give the Lotus Domino administrator the ability to monitor the connectivity status of the activities' servers. The following screenshot shows the details of the WebSphere Services probe:



**Basics**

| | |
|---|---|
| Probe Type: | Server |
| Probe Subtype: | WebSphere Services |
| Probe Description: | Websphere Activities Probe |

This probe checks to make sure protocol requests are being processed for WebSphere services. It does so by connecting to the port and performing a minimal protocol specific conversation.

**Target**

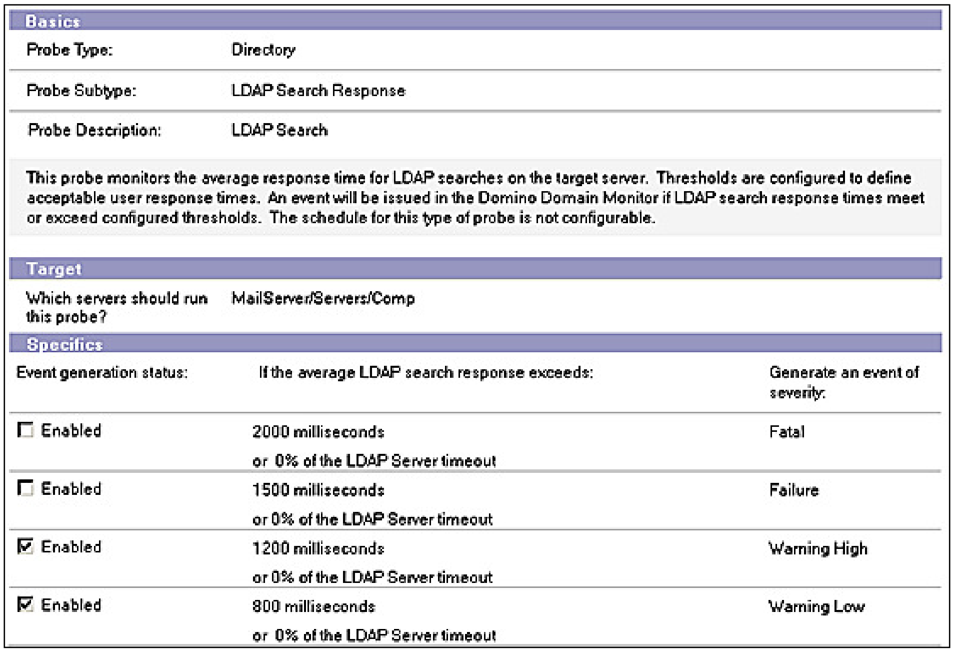
| | |
|---|---|
| Which servers should run this probe? | MailServer/Servers/Comp |

**Specifics**

| | |
|---|---|
| Severity | Warning (high) |
| Target WebSphere Server Name: | activities.competitive.com |
| Port Numbers: | 80 |

## LDAP search reporting

Lotus Domino provides a robust LDAP server built into its base server functionality. As more and more environments become dependent on the LDAP services provided by Lotus Domino, it is important to ensure that the searches are completed within appropriate response times. The new LDAP Search Response probe allows you to monitor and track response times as they relate to LDAP searches. The following screenshot show the details of the LDAP Search Response probe:



**Basics**

| | |
|---|---|
| Probe Type: | Directory |
| Probe Subtype: | LDAP Search Response |
| Probe Description: | LDAP Search |

This probe monitors the average response time for LDAP searches on the target server. Thresholds are configured to define acceptable user response times. An event will be issued in the Domino Domain Monitor if LDAP search response times meet or exceed configured thresholds. The schedule for this type of probe is not configurable.

**Target**

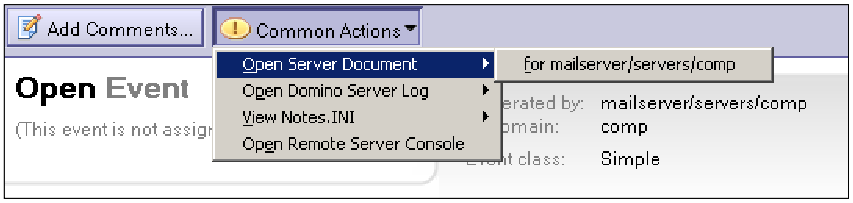
| | |
|---|---|
| Which servers should run this probe? | MailServer/Servers/Comp |

**Specifics**

| Event generation status: | If the average LDAP search response exceeds: | Generate an event of severity: |
|---|---|---|
| ☐ Enabled | 2000 milliseconds<br>or 0% of the LDAP Server timeout | Fatal |
| ☐ Enabled | 1500 milliseconds<br>or 0% of the LDAP Server timeout | Failure |
| ☑ Enabled | 1200 milliseconds<br>or 0% of the LDAP Server timeout | Warning High |
| ☑ Enabled | 800 milliseconds<br>or 0% of the LDAP Server timeout | Warning Low |

## The Common Actions quick access feature

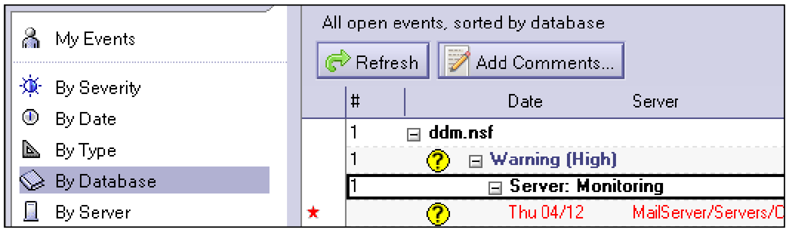
The DDM database within the Lotus Domino 8 environment provides a set of common tasks that are performed by administrators. From within the DDM database, you can simply click on the **Common Actions** drop-down menu (as shown in the following screenshot) and access routine administrative actions without switching to another view or client:


Add Comments...
Common Actions
Open Server Document
Open Domino Server Log
View Notes.INI
Open Remote Server Console
for mailserver/servers/comp
Open Event
(This event is not assign

erated by: mailserver/servers/comp
omain: comp
t class: Simple

## The By Database view

Working through the DDM database can be difficult when you are trying to work on specific issues related to a single database. In Lotus Domino 7, administrators were required to search through the database or create a custom view and then maintain that view as new releases of the product were deployed. The new **By Database** view allows you to research specific issues related to a troublesome database or respond to a customer issue without having to ensure that the view is brought forward if it was customized in previous versions. The **By Database** view is shown in the following screenshot:


My Events
By Severity
By Date
By Type
By Database
By Server
All open events, sorted by database
Refresh
Add Comments...

| # | | Date | Server |
|---|---|---|---|
| 1 | ⊟ ddm.nsf | | |
| 1 | ⊟ Warning (High) | | |
| 1 | ⊟ Server: Monitoring | | |
| | | Thu 04/12 | MailServer/Servers/C |

Other Lotus Domino 8 administration features include Domino Administrator integration with IBM **CommonStore Archive Services** (**ICAS**), Web Administration Server Bookmarks, and Automatic Report Closing (administration probe subtype); executing CA role, modular documents, and others.

## Performance enhancements

Lotus Domino 8/8.5 added a number of new features designed to enhance its performance. The focus of these enhancements was on reducing server overhead and load from functions within the environment.

This section will focus on the following enhanced features:

- Streaming cluster replication
- New ODS design note compression, on-demand collations (ODS 51 is required for DAOS)
- Simple search controls

## Streaming cluster replication

The cluster replication process moves information between the cluster member servers to ensure that, in case of a server outage, users maintain access to the most up-to-date information. As a new item is received on one server, the cluster replication process pushes the information to the other server. A typical configuration of the cluster replication task is to have one instance enabled on each server. You can increase the number of cluster replication tasks within the environment, but doing so increases disk I/O requirements, and this may have an effect on performance.

Lotus Domino 8 introduced a new feature for the cluster replication process—**Streaming cluster replication**. Streaming cluster replication allows for the immediate transfer of information from one server to its cluster mate, without requiring the server to write to the disk. The replication process occurs within the memory, thereby reducing I/O requirements. Cluster replication works closely with the normal replication process to ensure that the impact on the environment is reduced. Streaming replication is a server-based feature that does not require Lotus Notes 8.5.3 or the Lotus Notes 8.5.3 mail template.

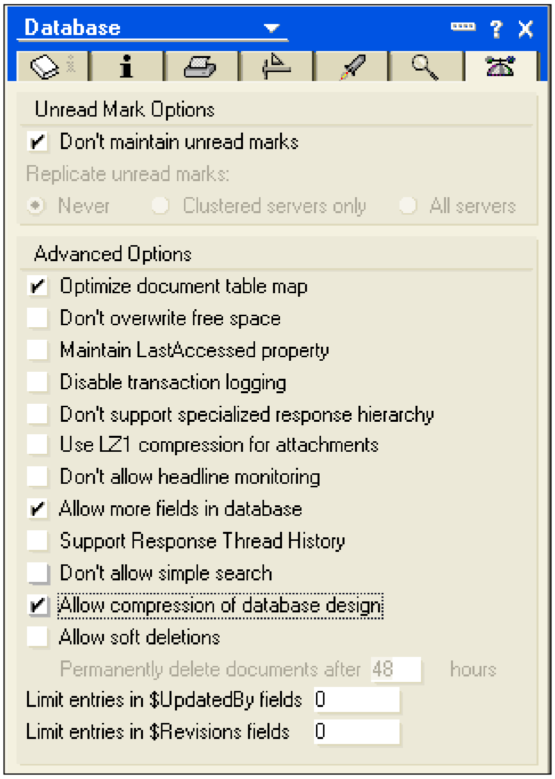
## New ODS

Lotus Domino 8 includes a new On-Disk Structure (ODS) that will allow the implementation of new features to increase performance and reduce the amount of overhead required to maintain and manage the environment. The new ODS 48 is not a requirement when moving to Lotus Domino 8. Instead, it allows the features of the design note compression (the design note compression and view collation features require ODS 48.) and on-demand collation to take advantage of the new ODS.

To upgrade the databases, add `Create_R8_Databases=1` to your server's `Notes.ini` file. To upgrade databases to the new ODS and compress the design, run a copy-style compaction. Now with Lotus Domino 8.5, you can use ODS 51—this is required for DAOS. You will need to use a different variable (`Create_R85_Databases=1`) in the `notes.ini` settings, for this to work correctly.

## Design note compression

Design note compression is a new feature provided in Lotus Domino 8 to assist in reducing the space required by the database templates. The compression feature allows design elements to be compressed, thereby reducing disk requirements. Based on preliminary testing, database size could be reduced by around 55 to 60 percent. Design note compression does not require Lotus Notes 8.5.3 or the Lotus Notes 8.5.3 mail template, but as this is a server feature, at least a Lotus Domino 8 server is required. As shown in the following screenshot, this feature can be enabled by checking the **Allow compression of database design** checkbox:



Unread Mark Options

☑ Don't maintain unread marks

Replicate unread marks:

● Never ○ Clustered servers only ○ All servers

Advanced Options

☑ Optimize document table map
☐ Don't overwrite free space
☐ Maintain LastAccessed property
☐ Disable transaction logging
☐ Don't support specialized response hierarchy
☐ Use LZ1 compression for attachments
☐ Don't allow headline monitoring
☑ Allow more fields in database
☐ Support Response Thread History
☐ Don't allow simple search
☑ Allow compression of database design
☐ Allow soft deletions

Permanently delete documents after 48 hours

Limit entries in $UpdatedBy fields 0

Limit entries in $Revisions fields 0

## On-demand collation

A feature added in Lotus Domino 8 is the ability to allow application developers to leave the creation of indexes until the end user leverages the sorting feature within the database. This option will reduce unnecessary overheads for the Domino server. To enable this feature, Lotus Notes 8.5.3 and the Lotus Notes 8.5.3 mail template are not required. But as this is a server-based feature, at least a Lotus Domino 8 server is required. To enable this feature, add the following line to `Notes.ini`:

```
ENABLE_ON_DEMAND_COLLATIONS=1
```

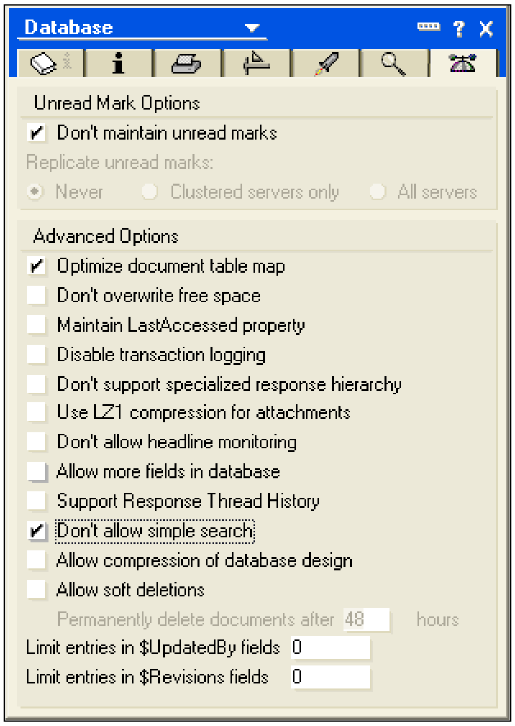
As index creation takes resources and time, this is going to have an effect on performance. Firstly, the creation time of the index will be unknown and thus can't be managed. Secondly, the user may have to wait for the index creation to complete before the search can be performed.

# Managing simple searches effectively

The Lotus Notes/Domino environment allows for feature-rich searching capabilities. These capabilities leverage the full text index created for a database. If a full text index has not been created when the user searches for the information, the server attempts to locate the information within the database. The process of searching the database without a full text index can have a significant impact on the performance of the server. In Lotus Domino 8, a new enhancement is introduced so as to eliminate the use of simple searches and thus increase server performance.

By checking the **Don't allow simple search** checkbox within the **Database** properties tab (as shown in the following screenshot), you can significantly enhance performance.

If the database does not have a full text index and this feature is enabled, the end user will receive an error and the search will not be completed for the database:



Unread Mark Options

☑ Don't maintain unread marks

Replicate unread marks:

● Never ○ Clustered servers only ○ All servers

Advanced Options

☑ Optimize document table map
☐ Don't overwrite free space
☐ Maintain LastAccessed property
☐ Disable transaction logging
☐ Don't support specialized response hierarchy
☐ Use LZ1 compression for attachments
☐ Don't allow headline monitoring
☐ Allow more fields in database
☐ Support Response Thread History
☑ Don't allow simple search
☐ Allow compression of database design
☐ Allow soft deletions

Permanently delete documents after 48 hours

Limit entries in $UpdatedBy fields 0

Limit entries in $Revisions fields 0

There are a number of other new performance-related features and enhancements introduced in Lotus Domino 8/8.5. These include improved server availability in a cluster and critical request scheduling. A new INI parameter has been added to improve server availability in a cluster. When setting up a cluster you specify a port for the cluster, and you limit cluster replication only to that specific port. Cluster traffic will fail if the port fails. By using the new parameter you can allow the use of other ports. The parameter is `Server_Cluster_Default_Port`.

> If you do not specify a default port in the `Server_Cluster_Default_Port` setting, all ports are tried.

One improvement in critical request scheduling is the ability to specify the time interval for when a specific type of administration request will execute. For example, if you wanted to prioritize a specific task, such as renaming a person's documents, you could set it to a higher interval to run. By default, it runs daily.

# Domino Directory and security enhancements

Lotus Domino 8/8.5 introduced a number of important Domino Directory and security enhancements. These include:

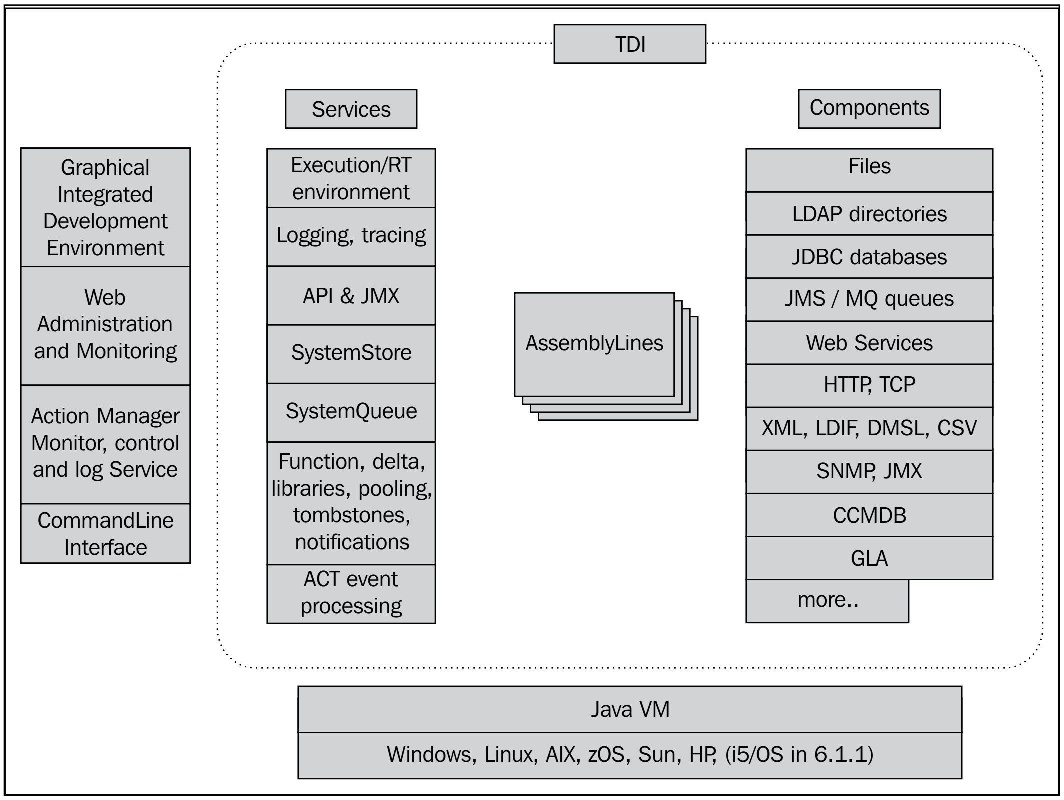
- IBM Tivoli Directory Integrator
- DirLint Directory Tool
- Authentication through Directory Assistance
- Directory Assistance LDAP Configuration Wizards
- People View by Lotus Notes version
- Internet Password Lockout
- Enhanced Local Database Encryption
- Certifier Key Rollover
- **Single Sign-On** (**SSO**) for LTPAToken2
- Certificate Revocation checking through the **Online Certificate Status Protocol** (**OCSP**)

# IBM Tivoli Directory Integrator

One of the most complicated problems to solve when implementing Lotus Domino (or any system that requires a directory to function) is locating the single authoritative source to use for access or identity management. **Tivoli Directory Integrator** (**TDI**) is a directory integration engine that provides a system that allows business rules to be applied to synchronize data in any direction. TDI provides different "assembly lines" (integration components that use the TDI API to connect various stores so as to allow TDI to apply those business rules).

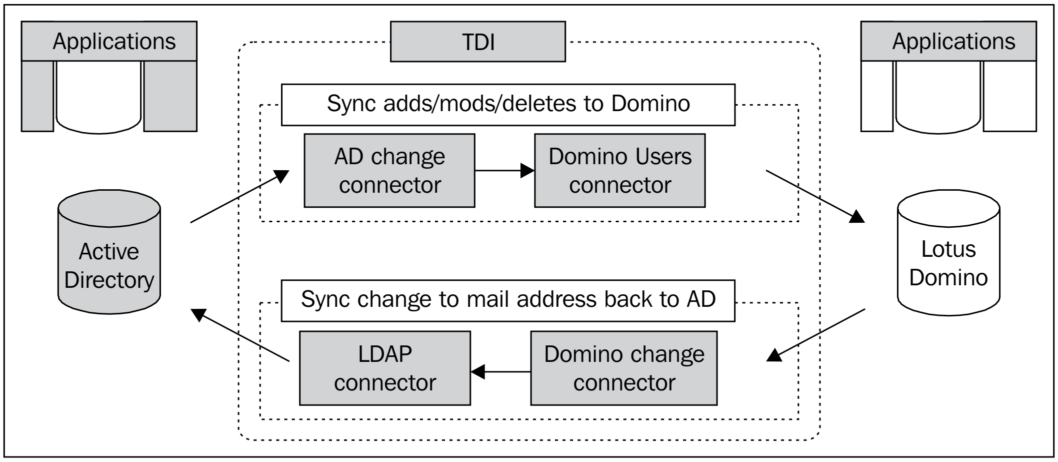
For example, if you have Microsoft Active Directory for file and print services, an LDAP store for web authentication, SAP or PeopleSoft for HR, or Lotus Domino for your mail directory, then TDI will allow granular control of user properties across all systems, with TDI serving as the arbiter and synchronizing "master".

The following diagram shows the TDI structure:


TDI
Services
Components
Graphical Integrated Development Environment
Web Administration and Monitoring
Action Manager Monitor, control and log Service
CommandLine Interface
Execution/RT environment
Logging, tracing
API & JMX
SystemStore
SystemQueue
Function, delta, libraries, pooling, tombstones, notifications
ACT event processing
AssemblyLines
Files
LDAP directories
JDBC databases
JMS / MQ queues
Web Services
HTTP, TCP
XML, LDIF, DMSL, CSV
SNMP, JMX
CCMDB
GLA
more..
Java VM
Windows, Linux, AIX, zOS, Sun, HP, (i5/OS in 6.1.1)

This also applies to Lotus Domino. With e-mail, every message or calendar invitation that is sent requires a directory lookup to find the recipient for delivery. In typical organizations, the e-mail directory and the authoritative directory are not the same. Lotus Domino 8 included a license for TDI to synchronize these directories in a manner that has previously been extremely difficult and expensive.

The following diagram shows a connection from Microsoft Active Directory as the directory partner for Lotus Domino, where directory entries flow bi-directionally between the two systems:


Applications
TDI
Applications
Sync adds/mods/deletes to Domino
AD change connector
Domino Users connector
Active Directory
Lotus Domino
Sync change to mail address back to AD
LDAP connector
Domino change connector

Previous versions of Lotus Domino included a tool known as ADSynch to perform a similar function. However, this tool was not as flexible or scalable as TDI. As the name suggests, ADSynch only synchronizes Active Directory and Domino. TDI can connect to nearly any system.

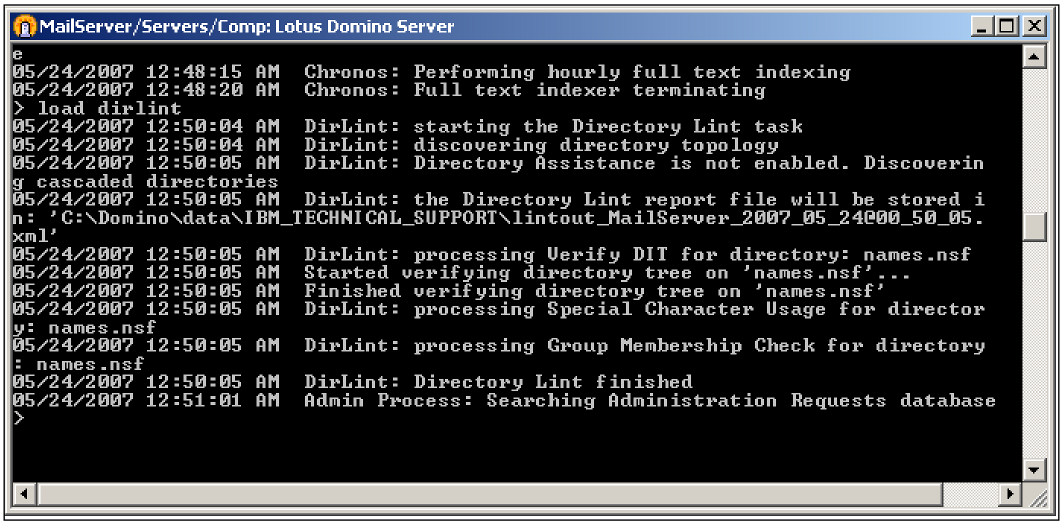
This model provides a single user interface for ID generation and management. If a user is created on either side, IDs and ancillary entries are created on the other. This could be with two systems as illustrated above, or with many systems and entries flowing to all the other systems' user-specific attributes as defined by TDI.

When implementing Lotus Notes/Domino 8.5.3 in a "green field" environment or as a migration, the directory integration piece is a primary component, not just another feature to be added. With the addition of TDI, Lotus Notes/Domino 8.5.3 lets you bring in many different directories and provide services much more easily than before. However, this does not mean that directory integration should be considered less important just because it's not as difficult. Disparate directories in organizations today are more prevalent than five years ago, so this directory integration functionality has become more logistically complicated, as tools such as TDI have evolved to make the technical aspects simpler. (For a more complete review of the TDI features and functionality, you should refer to the IBM Tivoli Directory Integrator documentation.)

# DirLint Directory Tool

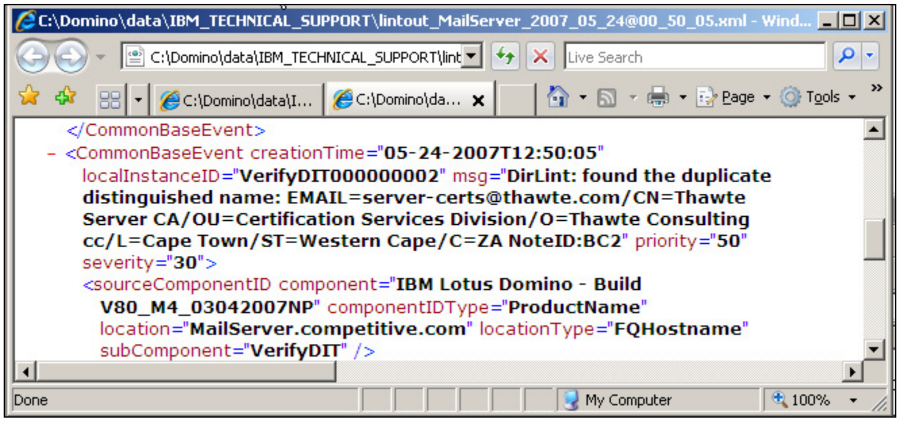
Domino 8 introduced a new tool called **DirLint**. This tool lets you verify the information that is contained within the directory. It runs against the directory and helps you identify issues, including invalid syntax in names and issues with the naming hierarchy scheme. It also checks to see if the users' names, that are found in groups through directory assistance, are consistent.

DirLint is a command-line utility that is loaded by simply entering the `load dirlint` command in the server console. It provides an XML document as output. This document can be read using any Internet web browser. The Lotus Domino Server console screen is shown in the following screenshot:



```
e
05/24/2007 12:48:15 AM  Chronos: Performing hourly full text indexing
05/24/2007 12:48:20 AM  Chronos: Full text indexer terminating
> load dirlint
05/24/2007 12:50:04 AM  DirLint: starting the Directory Lint task
05/24/2007 12:50:04 AM  DirLint: discovering directory topology
05/24/2007 12:50:05 AM  DirLint: Directory Assistance is not enabled. Discoverin
g cascaded directories
05/24/2007 12:50:05 AM  DirLint: the Directory Lint report file will be stored i
n: 'C:\Domino\data\IBM_TECHNICAL_SUPPORT\lintout_MailServer_2007_05_24@00_50_05.
xml'
05/24/2007 12:50:05 AM  DirLint: processing Verify DIT for directory: names.nsf
05/24/2007 12:50:05 AM  Started verifying directory tree on 'names.nsf'...
05/24/2007 12:50:05 AM  Finished verifying directory tree on 'names.nsf'
05/24/2007 12:50:05 AM  DirLint: processing Special Character Usage for director
y: names.nsf
05/24/2007 12:50:05 AM  DirLint: processing Group Membership Check for directory
: names.nsf
05/24/2007 12:50:05 AM  DirLint: Directory Lint finished
05/24/2007 12:51:01 AM  Admin Process: Searching Administration Requests database
>
```

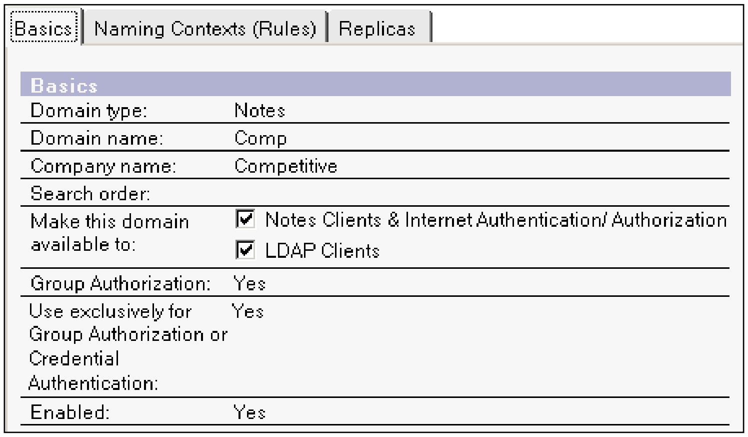
The information that is produced will be stored in `\\Domino\data\IBM\IBM_TECHNICAL_ SUPPORT\lintout_(ServerName)_(Date)`, as shown in the previous screenshot. An example of the information provided in the XML file is shown in the following screenshot:


C:\Domino\data\IBM_TECHNICAL_SUPPORT\lintout_MailServer_2007_05_24@00_50_05.xml - Wind...
C:\Domino\data\IBM_TECHNICAL_SUPPORT\lint
Live Search
C:\Domino\data\I...
C:\Domino\da...
Page
Tools
Done
My Computer
100%

```
  </CommonBaseEvent>
- <CommonBaseEvent creationTime="05-24-2007T12:50:05"
    localInstanceID="VerifyDIT000000002" msg="DirLint: found the duplicate
    distinguished name: EMAIL=server-certs@thawte.com/CN=Thawte
    Server CA/OU=Certification Services Division/O=Thawte Consulting
    cc/L=Cape Town/ST=Western Cape/C=ZA NoteID:BC2" priority="50"
    severity="30">
    <sourceComponentID component="IBM Lotus Domino - Build
      V80_M4_03042007NP" componentIDType="ProductName"
      location="MailServer.competitive.com" locationType="FQHostname"
      subComponent="VerifyDIT" />
```

# Authentication through Directory Assistance

In previous releases of Lotus Domino, Directory Assistance provided all directories for both authentication and name resolution when addressing messages. This created a situation where ambiguous names would be displayed while a message was being addressed if there was an "authentication only" directory included in the directory assistance task. Starting in Lotus Domino 8, you have the option through Directory Assistance to specify that the server only references directories contained within the document during the authentication process. This allows you to effectively deploy Directory Assistance for authentication without affecting end users during the addressing of messages. The **Configuration Settings** document for authentication through Directory Assistance is shown in the following screenshot:


Basics
Naming Contexts (Rules)
Replicas

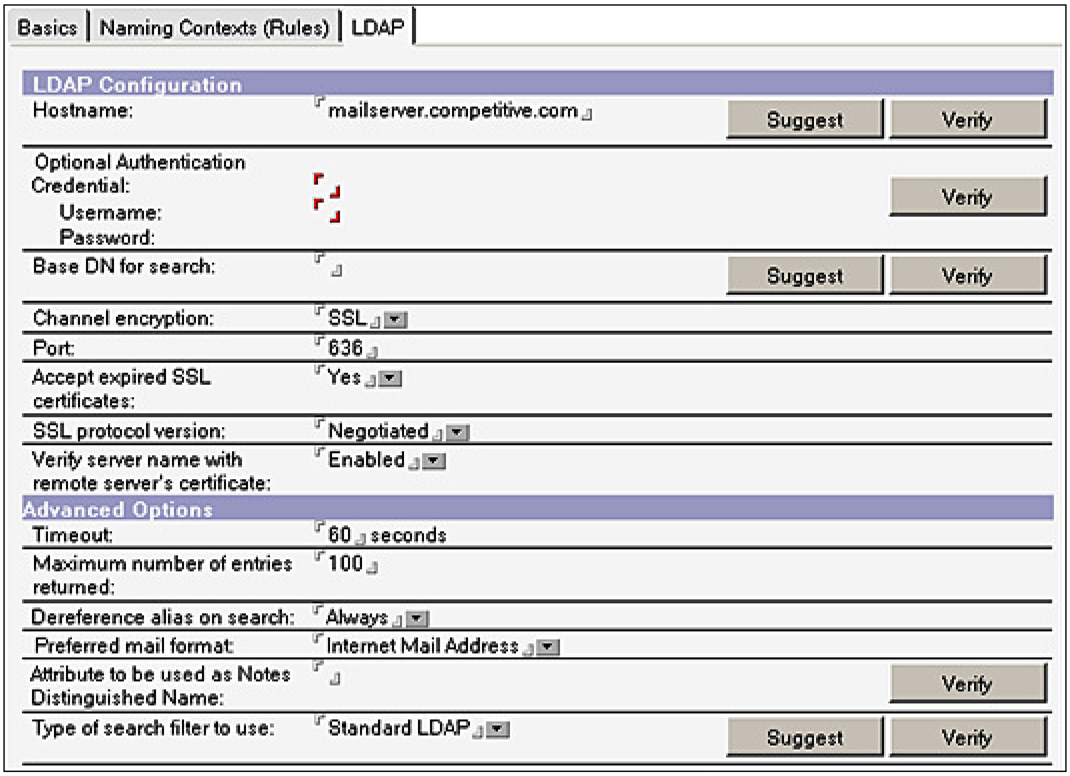
**Basics**

| | |
|---|---|
| Domain type: | Notes |
| Domain name: | Comp |
| Company name: | Competitive |
| Search order: | |
| Make this domain available to: | ☑ Notes Clients & Internet Authentication/ Authorization<br>☑ LDAP Clients |
| Group Authorization: | Yes |
| Use exclusively for Group Authorization or Credential Authentication: | Yes |
| Enabled: | Yes |

# Directory Assistance LDAP Configuration Wizards

Domino 8.5.3 offers configuration wizards for LDAP directories. In previous releases, you needed to know a significant amount of information about the LDAP directories that were being connected via Directory Assistance. You still need to understand basic Directory Assistance and LDAP concepts, but the new **Suggest** and **Verify** buttons on the configuration document help you complete the document, thus ensuring the proper connectivity to the LDAP servers. Some of the wizard buttons run scripts on the Lotus Domino server or connect to the LDAP server directly.

The following screenshot shows the LDAP configuration settings:



LDAP Configuration

Hostname: mailserver.competitive.com

Optional Authentication Credential:
Username:
Password:

Base DN for search:

Channel encryption: SSL

Port: 636

Accept expired SSL certificates: Yes

SSL protocol version: Negotiated

Verify server name with remote server's certificate: Enabled

Advanced Options

Timeout: 60 seconds

Maximum number of entries returned: 100

Dereference alias on search: Always

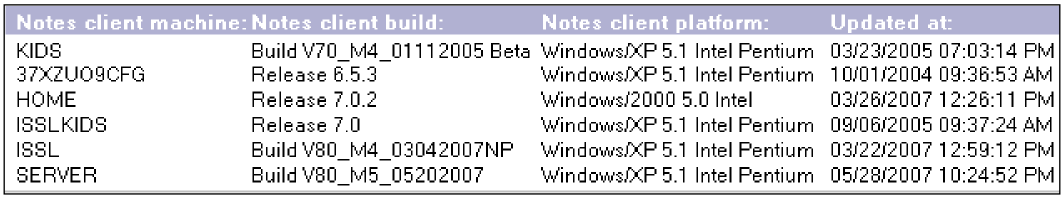
Preferred mail format: Internet Mail Address

Attribute to be used as Notes Distinguished Name:

Type of search filter to use: Standard LDAP

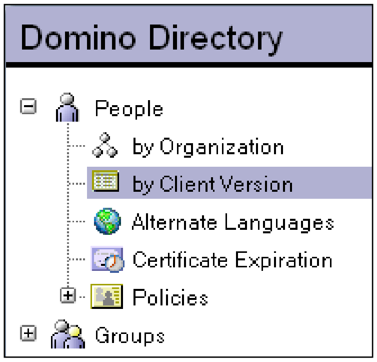
# People view by Lotus Notes version

As users log in to Lotus Domino, the AdminP captures the Lotus Notes version used to access the server. The information is stored within the Person documents in the Domino Directory as shown in the following screenshot:



| Notes client machine: | Notes client build: | Notes client platform: | Updated at: |
|---|---|---|---|
| KIDS | Build V70_M4_01112005 Beta | Windows/XP 5.1 Intel Pentium | 03/23/2005 07:03:14 PM |
| 37XZUO9CFG | Release 6.5.3 | Windows/XP 5.1 Intel Pentium | 10/01/2004 09:36:53 AM |
| HOME | Release 7.0.2 | Windows/2000 5.0 Intel | 03/26/2007 12:26:11 PM |
| ISSLKIDS | Release 7.0 | Windows/XP 5.1 Intel Pentium | 09/06/2005 09:37:24 AM |
| ISSL | Build V80_M4_03042007NP | Windows/XP 5.1 Intel Pentium | 03/22/2007 12:59:12 PM |
| SERVER | Build V80_M5_05202007 | Windows/XP 5.1 Intel Pentium | 05/28/2007 10:24:52 PM |

The new **People | by Client Version** view (see the following screenshot) allows you to go to the **Domino Directory** interface and identify the clients that the users are using to access the server. In previous releases, this was a custom view that needed to be developed and maintained:



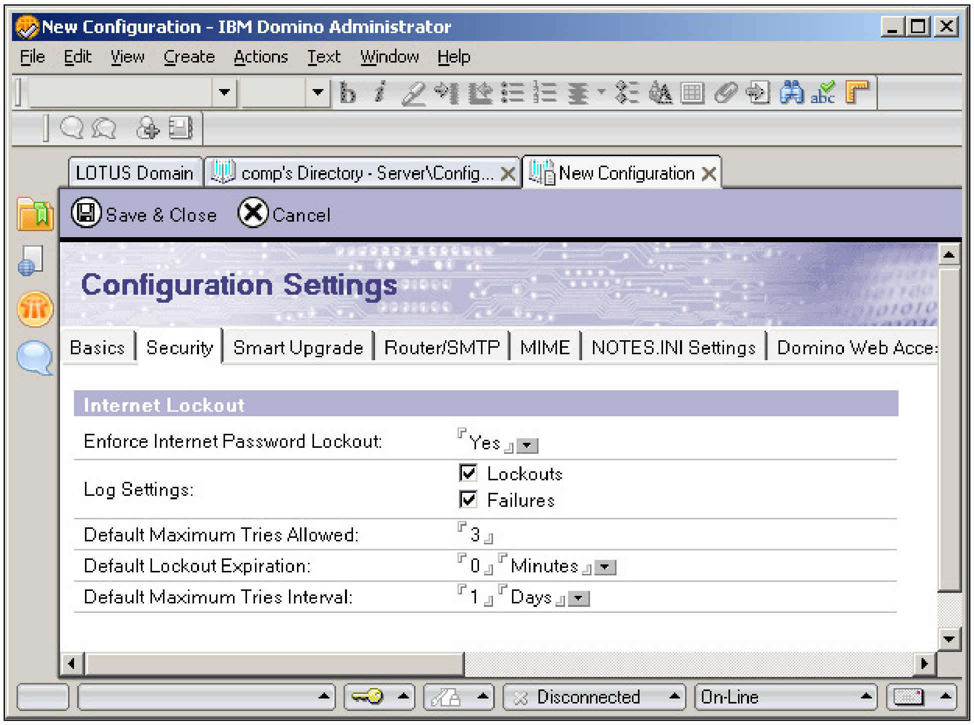
# Internet password lockout

Starting in Lotus Domino 8, an Internet password lockout feature was offered. This feature provides a mechanism (via the `inetlockout.nsf` database) to track all access attempts to the HTTP environment so that the status of the login attempt is logged. The creation of the Internet lockout database can be done manually, during server startup after the process has been configured, upon the first request to view a document, or when a document needs to be created within the database. The only caveat is that the service must have been running for a period of 10 minutes if the server is not to be rebooted.

The Internet password lockout feature can be enabled for the entire environment through a configuration document, or via a policy that more granularly assigns the ability to lockout users from the HTTP access. The **Configuration Settings** document does the following:

- Enables the Internet password lockout feature
- Sets the logging feature to report lockouts, failures, or both
- Sets the maximum number of tries allowed and the lockout expiration timing (in minutes, hours, and days), along with the maximum interval between the tries (in minutes, hours, and days)

The lockout feature only applies to HTTP access, and a traditional anti-spoofing mechanism is leveraged within the rich Lotus Notes client so that services such as LDAP, POP, IMAP, **Domino Internet Inter-ORB Protocol** (**DIIOP**), Lotus QuickPlace, and Lotus Sametime are currently not supported with this feature. If your Lotus Domino environment is using a customized DSAPI filter, there is a possibility that the Internet password lockout feature will not function, because customized DSAPI filters can be coded to bypass the standard Lotus Domino login facility. The following screenshot shows the settings for the Internet lockout feature:


New Configuration - IBM Domino Administrator
File
Edit
View
Create
Actions
Text
Window
Help
LOTUS Domain
comp's Directory - Server\Config...
New Configuration
Save & Close
Cancel
Configuration Settings
Basics
Security
Smart Upgrade
Router/SMTP
MIME
NOTES.INI Settings
Domino Web Acce
Disconnected
On-Line

Internet Lockout

Enforce Internet Password Lockout: Yes

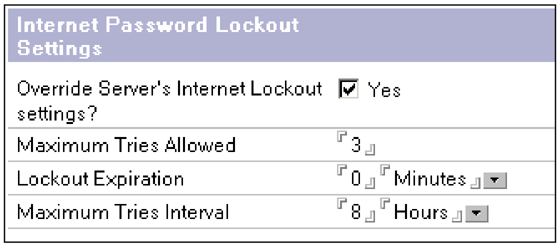
Log Settings: ☑ Lockouts ☑ Failures

Default Maximum Tries Allowed: 3

Default Lockout Expiration: 0 Minutes

Default Maximum Tries Interval: 1 Days

When configuring the Internet password lockout feature via a security policy, the same options are presented as with the configuration document, as shown in the following screenshot:



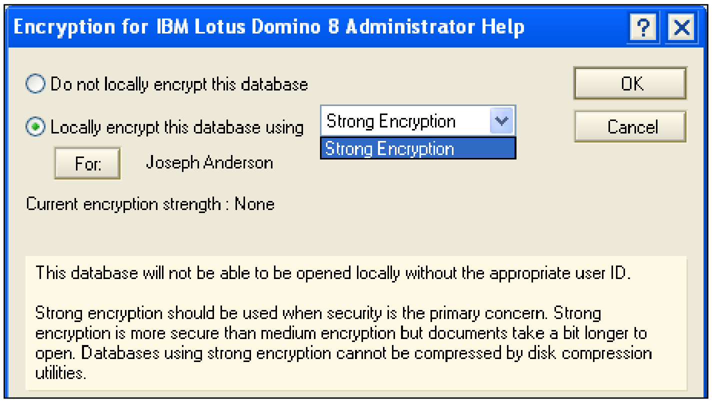
**Internet Password Lockout Settings**

| | |
|---|---|
| Override Server's Internet Lockout settings? | ☑ Yes |
| Maximum Tries Allowed | 3 |
| Lockout Expiration | 0 Minutes |
| Maximum Tries Interval | 8 Hours |

It is important to note that enabling this feature could increase the initial call volume to your help desk, or the administrative overhead required to manage passwords, if the HTTP password feature is used significantly within the organization. Also, malicious attacks can occur on the Lotus Domino servers through denial of service attacks. This type of attack could significantly reduce effectiveness within the environment.

# Enhanced local database encryption

Starting in Lotus Domino 8, the encryption level for all new databases will be set to **Strong Encryption**, as shown in the following screenshot. The ability to encrypt databases with an end user's ID, to prevent access by other users' IDs, is necessary to ensure the protection of data once a database is brought to the local workstation. In previous releases, databases had the ability to be encrypted at the simple, medium, or strong level, depending on the needs and requirements of the environment and the end users. Lotus Domino will still provide backwards compatibility for the simple and medium encryption models, but from now on, all new replicas will be encrypted as strong:



○ Do not locally encrypt this database

● Locally encrypt this database using Strong Encryption

For: Joseph Anderson

Current encryption strength : None

This database will not be able to be opened locally without the appropriate user ID.

Strong encryption should be used when security is the primary concern. Strong encryption is more secure than medium encryption but documents take a bit longer to open. Databases using strong encryption cannot be compressed by disk compression utilities.

## Certifier Key Rollover

Lotus Domino administrators can assign a new set of public and private keys to a Domino **Certificate Authority** (**CA**). These keys are used to certify the keys of **Organization Units** (**OUs**), servers, and users in that organization. The process of assigning new keys is known as **Key Rollover**. Rolling over a CA key may become necessary if the current key is considered too short for adequate encryption, the current key is too old, or if the value of the current private key has been compromised.

When an administrator assigns a new set of keys to a Domino certificate authority, they are created and self-certified, and added to the top-level certifier ID file in the pending key area of the ID file. The keys that were previously used are added to the archived keys area of the ID file, and rollover certificates binding the new and old keys are added to the rollover certificate area of the ID file.

In order to support certifier key rollover, the Domino trust model has been extended to include new types of certificates, called rollover certificates. These certificates are issued by an entity to itself. In a hierarchical certificate, there is a single issuer name, a single subject name, and a single subject key. In a rollover certificate, there is a single name (which is both the issuer and the subject) and two subject keys—one key is used to sign the certificate and attests to the fact that the subject name is legitimately in possession of the other key.

Generally, when a key is rolled over, two roll-over certificates are issued—one of them is signed by the old key saying that the new key is valid, and the other is signed by the new key saying that the old key is valid. Each certificate has its own expiration date.

Rollover certificates are essential for limiting the expiration dates of certificates issued to the older keys. One of the reasons for rolling over a key is that a former key has been compromised or considered to be old enough for the danger of compromise to be unacceptable. In such cases, limiting the expiration date of a rollover certificate limits the lifetime of a formerly issued child certificate. This is done by specifying an early enough expiration date in the rollover certificate.

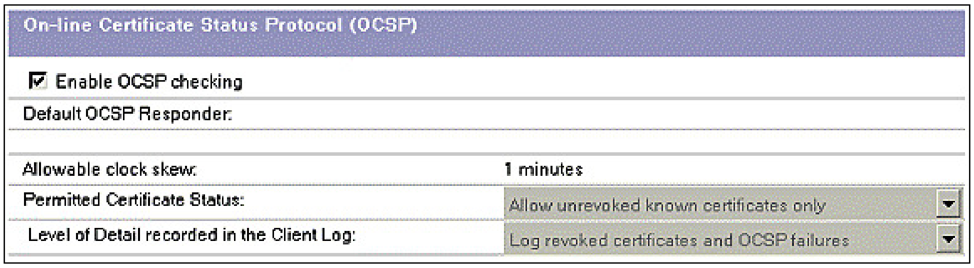
## Single Sign-On (SSO) for LTPAToken2

Multi-server session-based authentication, also known as **Single Sign-On** (**SSO**), allows web users to log in once to a Domino or WebSphere server, and then access other Domino or WebSphere servers in the same DNS domain that is enabled for SSO without having to log in again. LTPAToken2 is incompatible with Domino 7 and prior releases, but provides SSO security improvements. The new SSO feature makes logging in and using multiple servers in a mixed environment easier for users. Web browsers must have cookies enabled, as the authentication token that is generated by the server is sent to the browser in a cookie.

SSO may be set up by creating a domain-wide configuration document in the directory and enabling the multi-servers option for session-based authentication in a website or a server document.

# Certificate revocation checking through the Online Certificate Status Protocol

The **Online Certificate Status Protocol** (**OCSP**) enables applications to determine the revocation state of an identified certificate. OCSP checks are made during S/MIME signature verification and mail encryption by the Lotus Notes client. OCSP is enabled through a policy, using the **Enable OCSP checking** setting in the **Keys and Certificates** tab, as shown in the following screenshot:



On-line Certificate Status Protocol (OCSP)

☑ Enable OCSP checking

Default OCSP Responder:

Allowable clock skew: 1 minutes

Permitted Certificate Status: Allow unrevoked known certificates only

Level of Detail recorded in the Client Log: Log revoked certificates and OCSP failures

Other Lotus Domino 8/8.5 directory/security features include LDAP server improvements for WebSphere Member Manager (WMM) and larger key support.

# Enhanced integration with IBM servers and tools

The Lotus Notes and Domino environment has continually leveraged other IBM technologies to improve performance, reliability, administration, and functionality. The Lotus Domino 8 release has built upon prior successes and added more robust support for other IBM technologies. This section will focus on the integration of WebSphere Portal, and the Tivoli Enterprise Console.

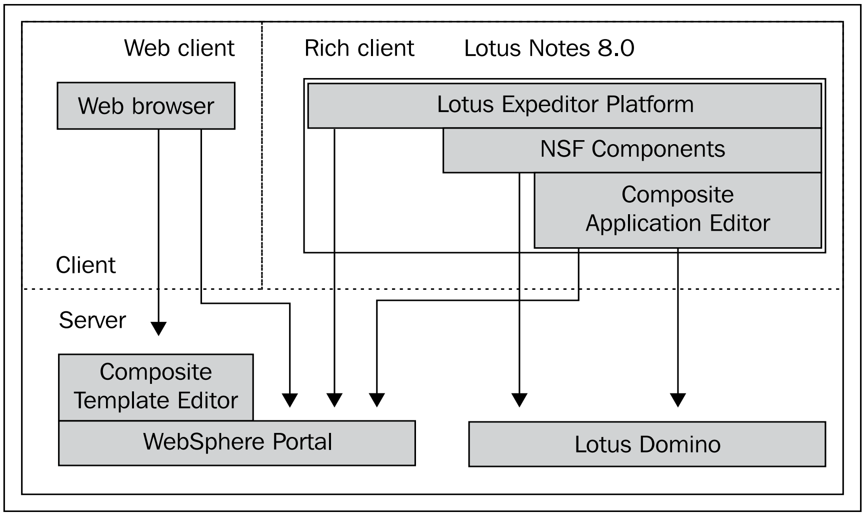
# IBM WebSphere Portal integration wizard

WebSphere Portal has introduced an enhanced integration wizard that reduces the complexity required to enable Lotus Domino 8.5.3 and WebSphere Portal integration. This includes the setting up of the **Common PIM** (**Personal Information Management**) **Portles** (**CPP**) and the Lotus **Domino Extended Products Portlets** (**DEPP**).

The wizard automates the following:

- Configuration of single sign-on (includes exporting LTPA token and creating a Web SSO document on Lotus Domino)
- Configuration of Lotus Sametime (includes single sign-on, enabling awareness for Lotus Domino Web Access, and setting up trusted servers in `STCENTER.NSF`)
- Configuration of Lotus Domino Directory (includes single sign-on, DIIOP and configuring collaborative services to bind to Lotus Domino LDAP)
- Configuration of Lotus Domino mail servers (includes single sign-on, DIIOP, `notes.ini` settings for HTTP, and enabling XML services)

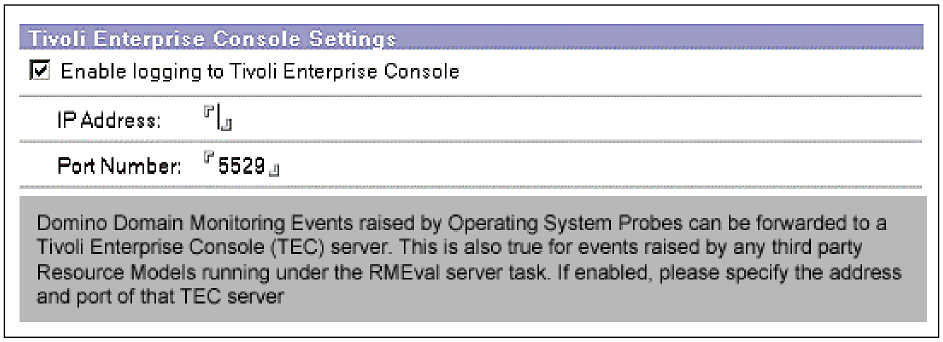
Perhaps the most dramatic improvement is the Lotus Notes 8.5.3 rich client. Lotus Notes and Domino 8.5.3 software makes it easy for you to integrate line-of-business solutions and data into a new class of applications, called composite applications. Both Lotus Domino 8.5.3 and WebSphere Portal 6 servers can host composite applications. This will allow clients to run both Domino applications and portlets (as well as servlets and Internet applications). This is explained in the following diagram:


Web client
Rich client
Lotus Notes 8.0
Web browser
Lotus Expeditor Platform
NSF Components
Composite Application Editor
Client
Server
Composite Template Editor
WebSphere Portal
Lotus Domino

# IBM Tivoli Enterprise Console integration

The Tivoli Enterprise Console consolidates events from networks, hardware, and software throughout the environment, and presents them in a single monitoring interface. Lotus Domino 7 allows you to configure events that are generated by the operating system probes, so that they can be viewed with other events in the Enterprise Console.

Lotus Domino 8.5.3 allows you to configure any event to be forwarded to the Enterprise console. The first thing you need to do is configure the connectivity to the **Tivoli Enterprise Console Settings** through the Lotus Domino Server Configuration document, as shown in the following screenshot:



Tivoli Enterprise Console Settings

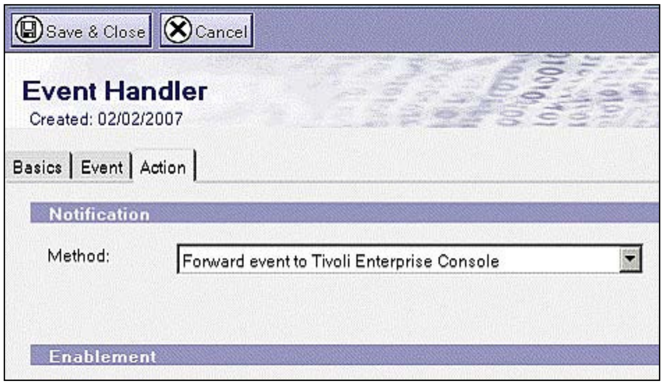
☑ Enable logging to Tivoli Enterprise Console

IP Address:

Port Number: 5529

Domino Domain Monitoring Events raised by Operating System Probes can be forwarded to a Tivoli Enterprise Console (TEC) server. This is also true for events raised by any third party Resource Models running under the RMEval server task. If enabled, please specify the address and port of that TEC server

It is then necessary to forward the events to the Tivoli Enterprise Console. You do this by configuring the `events.nsf` database so as to describe the proper **Event Handler** documents required by the Enterprise console, as shown in the following screenshot:



Event Handler

Created: 02/02/2007

Notification

Method: Forward event to Tivoli Enterprise Console

Enablement

# Lotus Domino 8.5.3 new server enhancements

The following sections will cover the new 8.5.3 server enhancements.

## 8.5.3 generic error clarification

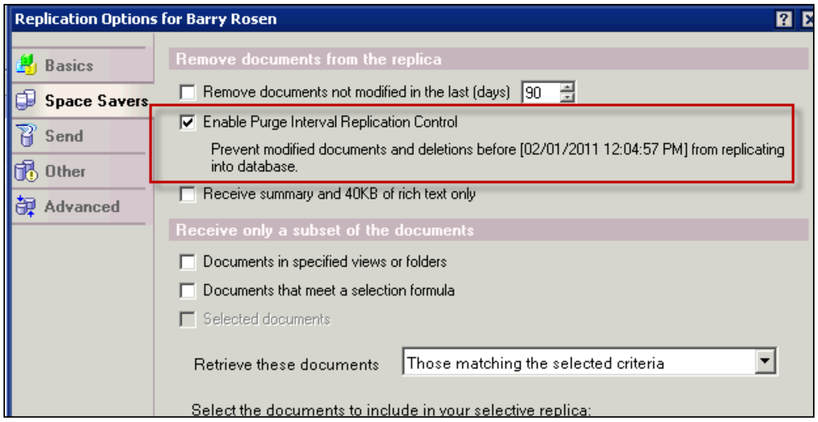
Lotus Domino error messages can sometimes be generic and hard to figure out. In Lotus Domino 8.5.3, there has been an effort to add clarity to some of the more generic errors. Examples of these generic errors are "Unknown OS Error", "Object variable not set", and "Note Item not found". This enhancement will make diagnosing and troubleshooting Lotus Domino errors less challenging.

## 8.5.3 error collection enhancements

In Lotus Domino 8.5.3, Error Collection through the NSD process has improved. The summary of memory information has been added to the NSD. Statistics about sharing, private, OS, and Java memory are now given. This will allow immediate statistic collection to tell if a memory problem exists and will aid in speeding up identification of low memory conditions and memory-related crashes.

## 8.5.3 replication enhancements

Lotus Domino 8.5.3 has introduced an improvement in replication. This is based on the purge interval. A new database option, **Purge Interval Replication Control** (**PIRC**), will prevent old documents and deletions from replicating into a database. PIRC is enabled in the replication settings dialog box under the **Space Savers** tab. In the following screenshot you can see the new setting in the replication settings:


Replication Options for Barry Rosen
Basics
Space Savers
Send
Other
Advanced
Remove documents from the replica
Receive only a subset of the documents

☐ Remove documents not modified in the last (days) 90

☑ Enable Purge Interval Replication Control

Prevent modified documents and deletions before [02/01/2011 12:04:57 PM] from replicating into database.

☐ Receive summary and 40KB of rich text only

☐ Documents in specified views or folders

☐ Documents that meet a selection formula

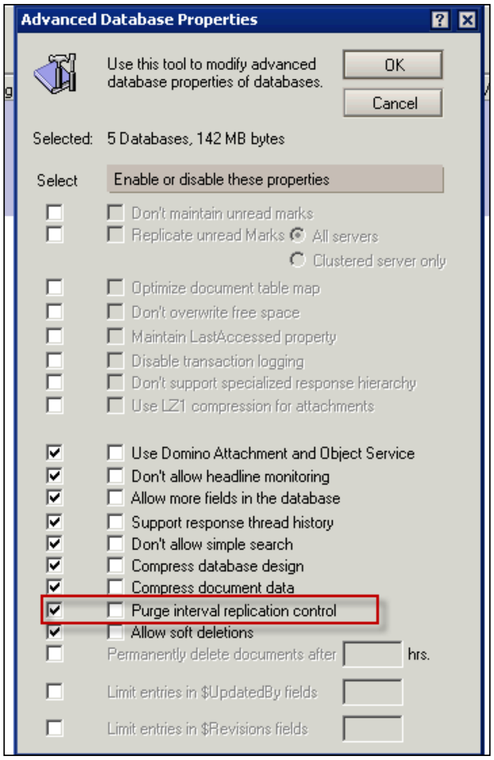
☐ Selected documents

Retrieve these documents: Those matching the selected criteria

Select the documents to include in your selective replica:

> To enable PIRC on multiple databases, run Compact server with the new `-pirc on` switch. An example of this new parameter is `ncompact foo.nsf -pirc on`.

You can also enable Purge Interval Replication Control on multiple databases using the administrator client, under **Advanced Database Properties** as seen in the following screenshot:



Use this tool to modify advanced database properties of databases.

Selected: 5 Databases, 142 MB bytes

Select | Enable or disable these properties

☐ ☐ Don't maintain unread marks
☐ ☐ Replicate unread Marks ● All servers ○ Clustered server only
☐ ☐ Optimize document table map
☐ ☐ Don't overwrite free space
☐ ☐ Maintain LastAccessed property
☐ ☐ Disable transaction logging
☐ ☐ Don't support specialized response hierarchy
☐ ☐ Use LZ1 compression for attachments
☑ ☐ Use Domino Attachment and Object Service
☑ ☐ Don't allow headline monitoring
☑ ☐ Allow more fields in the database
☑ ☐ Support response thread history
☑ ☐ Don't allow simple search
☑ ☐ Compress database design
☑ ☐ Compress document data
☑ ☐ Purge interval replication control
☑ ☐ Allow soft deletions
☐ Permanently delete documents after ____ hrs.
☐ Limit entries in $UpdatedBy fields ____
☐ Limit entries in $Revisions fields ____

Once enabled, replication will block all documents that are older than the date specified by the purge interval from replicating into the database. This not only prevents old documents from replicating back into the database, but also prevents the replication problems that can occur by modifying the "replication since time" value. When dealing with pre-8.5.3 clients or servers, NoteUpdate will block documents from being saved to a database whose SequenceTime is older than the purge interval. There is also a NOPIRC switch. This will allow a single instance replication of databases that ignores the PIRC setting. In order to be able to monitor this new functionality, a DDM probe can be used to allow the administrator to track down "bad" replicas of the database.

## 8.5.3 AdminP enhancements

Lotus Domino 8.5.3 introduced a new AdminP command in the `admin4.nsf` database. It is called "Rename Person in Calendar Entries and Profiles in Mail File Extended". This command runs automatically and manages the correct processing of a user rename in all ACLs, calendar profiles, and calendar and scheduling documents, in every database that is marked as including a calendar.

As a result of this new AdminP command, the **Modify All Names Fields** ACL setting is no longer necessary. Any changes to it by users are ignored. All servers must be 8.5.3 in order for this command to work. The AdminP database should also be using the 8.5.3 template.

# Summary

In this chapter, we looked at the major new and enhanced feature areas in Lotus Domino 8, 8.5 and 8.5.3. This included end user and messaging enhancements, administration enhancements, performance enhancements, Domino Directory and security enhancements to 8.5, enhanced integration with IBM servers and tools, and Lotus Domino 8.5.3 new server enhancements.

In the next chapter, we will examine the deployment enhancements in Lotus Notes and Domino 8.5.3.

# 5

# Deployment Enhancements in Notes/Domino 8.5.3

The deployment and management of Lotus Notes/Domino has traditionally been divided between the Domino administration staff and the desktop management team. In previous releases, the deployment of Lotus Notes was a completely standalone process, and Domino administrators relied on the desktop team to deploy the client. Lotus Domino then introduced a feature called **Smart Upgrade** to assist with the management and deployment of new Lotus Notes client releases. This concept of server-based management of the client was significantly enhanced with the introduction of policies and enhancements to Smart Upgrade.

The task of managing the Lotus Notes client through Lotus Domino has been significantly enhanced in Lotus Notes/Domino 8, 8.5, and 8.5.3. With the introduction of the Eclipse client platform for Lotus Notes, the Domino server becomes a provisioning tool. Advancements in policies and the introduction of the database redirect feature also significantly improved the ability to manage the Lotus Notes environment.

This chapter focuses on the new and improved technologies that allow Lotus Domino to better deploy and manage upgrades to the Lotus Notes client.

In this chapter, we will cover the following topics:

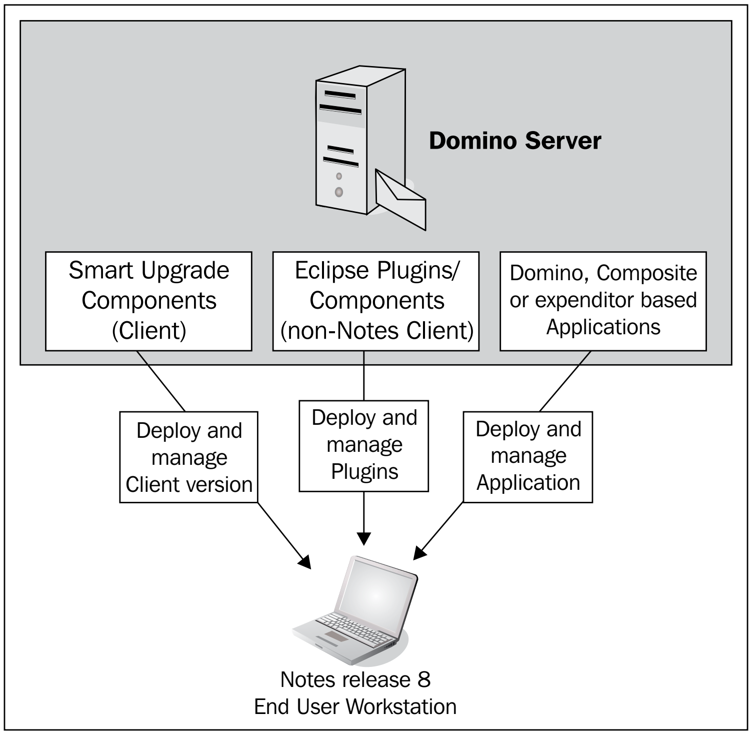
- Client provisioning
- Policies
- Database redirect
- Pushing trusted certificates to Notes clients

# Client provisioning

The shifting of Lotus Notes to the Eclipse platform has a significant impact on the end user community. As noted in *Chapter 2*, *Overview of New Lotus Notes 8.5.3 Client Features*, the new look and feel of the client and the underlying Eclipse foundation enhances the end user environment. Eclipse-based plugins in Lotus Notes extend the user's ability to work in a collaborative environment. Unfortunately, the management of these new features may require a higher level of user interaction. Lotus/IBM has recognized this issue, and has leveraged the native Eclipse provisioning architecture to allow for the management of plugins and the desktop environment. The introduction of these provisioning features does not replace the Smart Upgrade feature; this utility can still be used to deploy versions of the client.

# Server-managed provisioning

Lotus Domino 8 offers functionality that allows for the deployment of the full Lotus Notes client, Eclipse-based plugins, and applications (native Domino, composite, or Expeditor based). The following diagram shows the different models for managing the end user environment:


Domino Server
Smart Upgrade Components (Client)
Eclipse Plugins/ Components (non-Notes Client)
Domino, Composite or expenditor based Applications
Deploy and manage Client version
Deploy and manage Plugins
Deploy and manage Application
Notes release 8 End User Workstation

## Smart Upgrade

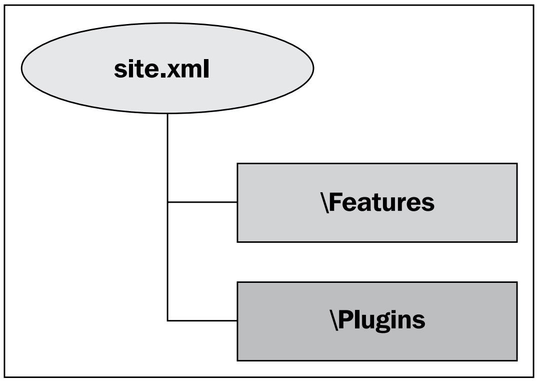
The traditional Smart Upgrade feature within the Lotus Domino server can be used to deploy Lotus Notes to the end users. The Smart Upgrade feature will assist in pushing the entire set of client code to the Lotus Notes user community.

For more information on the Smart Upgrade feature, refer to the Domino 8 Administrator Help database (`http://publib.boulder.ibm.com/infocenter/domhelp/v8r0/index.jsp`).

## Eclipse-based provisioning

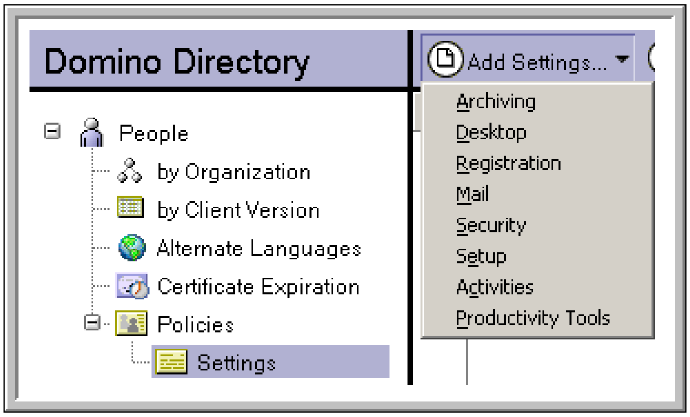
Lotus Notes 8 is built on the Eclipse foundation. Composite applications are considered as features within the Lotus Notes architecture, so their deployment and management is handled through the same process as other Eclipse-based features. The management of Eclipse-based clients such as Lotus Notes and Sametime Connect 7.5.x has now shifted to the native provisioning model. When the end user or administrator wants to push out a new feature to Lotus Notes, they will be directed to a `site.xml`, which contains the information for installing the feature. The feature that is being installed within the Eclipse framework will have dependent plugins required for the feature to function properly.

Starting in Lotus Domino 8, the `update.ntf` template leverages the native Lotus Notes replication and security features, to provide and manage access to new and updated features, as shown in the following diagram:



# Policies

Policies were introduced in earlier releases of Lotus Domino to assist in the management of end users through a server-managed process. They are configured through the Domino Directory:


Domino Directory
Add Settings...
People
by Organization
by Client Version
Alternate Languages
Certificate Expiration
Policies
Settings
Archiving
Desktop
Registration
Mail
Security
Setup
Activities
Productivity Tools

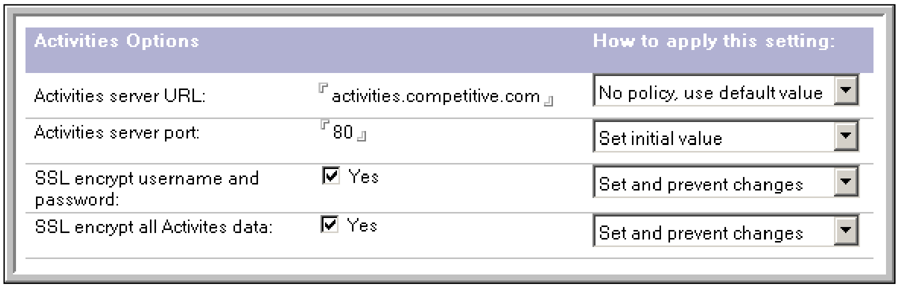
Lotus Domino 8 and 8.5.3 introduce new policy documents, as well as new options within existing policy documents. This section will review these new and enhanced policies and options.

> It is important to note that Lotus Domino uses dynamic configuration to deploy all policy settings, with the exception of the mail policy settings. When end users authenticate with their home servers, the information stored within the policy settings' documents is deployed (pushed down) to the end users. The mail policy settings are not deployed through the dynamic configuration process. Instead they are deployed throughout the environment via the Administration Process (AdminP).

# The How to apply this setting feature

In previous releases of Lotus Domino, policies were applied to all end users who were configured to receive them. This was limiting, as it forced users to conform to the policies without giving them the option of changing them later, if necessary. The new **How to apply this setting** option allows you to configure whether the policy is applied, using one of the following three options:

- **No policy, use default value**: This option uses the initial configuration upon installation of the client
- **Set initial value**: This option sets the value for the end user, but does not prohibit the end user from later changing it to better suit current requirements
- **Set and prevent changes**: This option sets the value for the end user and enforces the option so that the end user cannot make a change



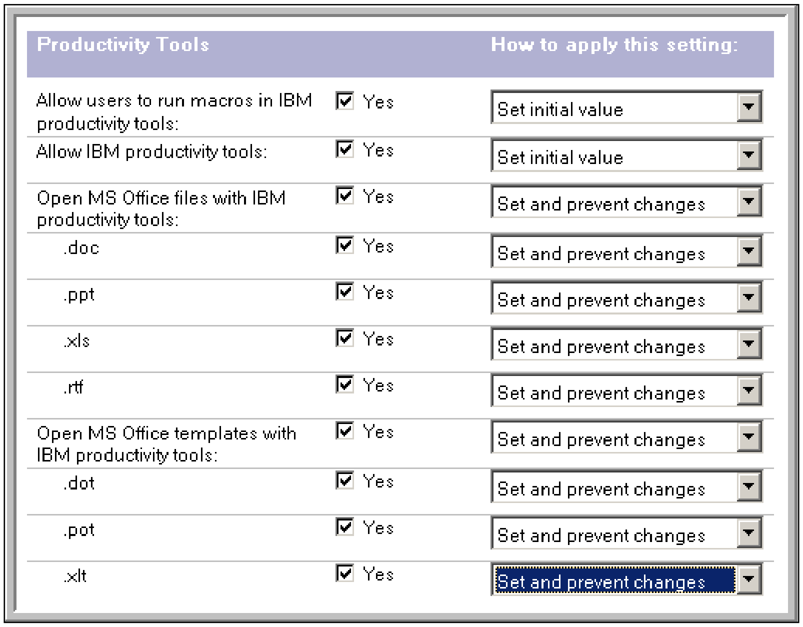
| Activities Options | | How to apply this setting: |
|---|---|---|
| Activities server URL: | activities.competitive.com | No policy, use default value |
| Activities server port: | 80 | Set initial value |
| SSL encrypt username and password: | ☑ Yes | Set and prevent changes |
| SSL encrypt all Activites data: | ☑ Yes | Set and prevent changes |

# Activities policy settings document

Lotus Connections does not require the use of Lotus Notes/Domino, but with the Eclipse platform, the Activities portion of the product can be leveraged as a plugin to the client environment. To support this new product and the plugin, Lotus Domino 8 contains a new Activities policy document to manage the Activities environment, specifically with the ability to configure the **Activities server URL** and **Activities server port**. Additionally, you can specify whether or not SSL is leveraged to encrypt the username, password, and data.

## Productivity tools settings document

The support of **Open Document Format** (**ODF**) has been extended to Lotus Notes/Domino through the introduction of productivity tools within the client. To support this new feature, Lotus Domino 8 contains a new productivity tools policy document. This document can be used to leverage the tools and macros, and gives you the ability to choose which Microsoft Office and Symphony files and templates to open, by default:



| Productivity Tools | | How to apply this setting: |
|---|---|---|
| Allow users to run macros in IBM productivity tools: | ☑ Yes | Set initial value |
| Allow IBM productivity tools: | ☑ Yes | Set initial value |
| Open MS Office files with IBM productivity tools: | ☑ Yes | Set and prevent changes |
| .doc | ☑ Yes | Set and prevent changes |
| .ppt | ☑ Yes | Set and prevent changes |
| .xls | ☑ Yes | Set and prevent changes |
| .rtf | ☑ Yes | Set and prevent changes |
| Open MS Office templates with IBM productivity tools: | ☑ Yes | Set and prevent changes |
| .dot | ☑ Yes | Set and prevent changes |
| .pot | ☑ Yes | Set and prevent changes |
| .xlt | ☑ Yes | Set and prevent changes |

## Desktop policy settings document (and setup policy settings document)

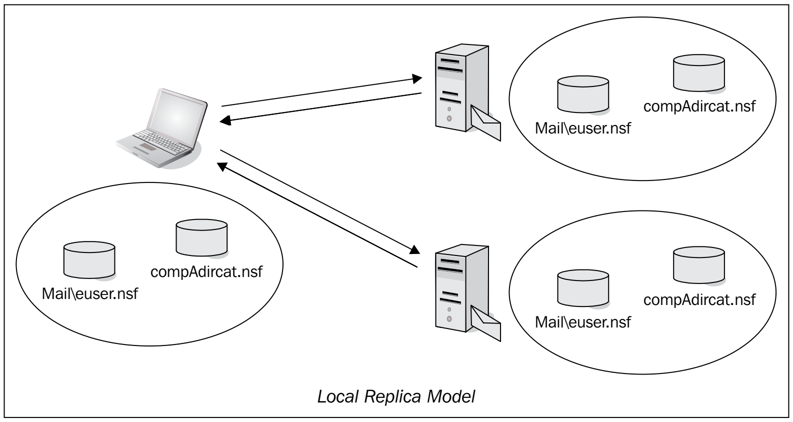
To ease the management of the environment, the options for the setup policy settings document are now also available in the desktop policy settings document. You can now use just one document (the desktop policy settings document) to establish the desktop policy settings as well as many of the setup policy settings. It is recommended that in the future you can use the new, updated desktop policy settings document to define both your desktop policy settings and your setup policy settings.

The desktop policy settings document controls the user's workspace. Desktop settings are enforced the first time a user logs in to Lotus Notes and runs the setup. After the initial setup, you can use the policy settings to update the user's desktop settings. Users receive updates to the settings when any of the policy settings change—the desktop policy settings are enforced the next time that the users authenticate with their home server.

# Replication settings through the desktop and setup policy documents

As customers are consolidating their Lotus Domino environments, the use of the local replication model is becoming more popular. Local replication allows end users to interact with their mail databases locally on their machines and to leverage the native asynchronous notification process to deliver mail to the workstation.

Deploying the local replication model is the key to the success of the consolidation project. With local replica-based mail, users perform all their mail functions in a replica stored on the hard drive of the workstation. They can use replication to create a local instance of a Domino database on the workstation. Updates, such as receiving new mail or template changes, are initially received by the server mail replica. The Notes client then pulls these updates to the local database via replication. Any changes that have been made on the local mail replica, such as composing new mail, deleting mail, or putting it in a folder, are pushed to the Domino server after receiving new updates via replication:



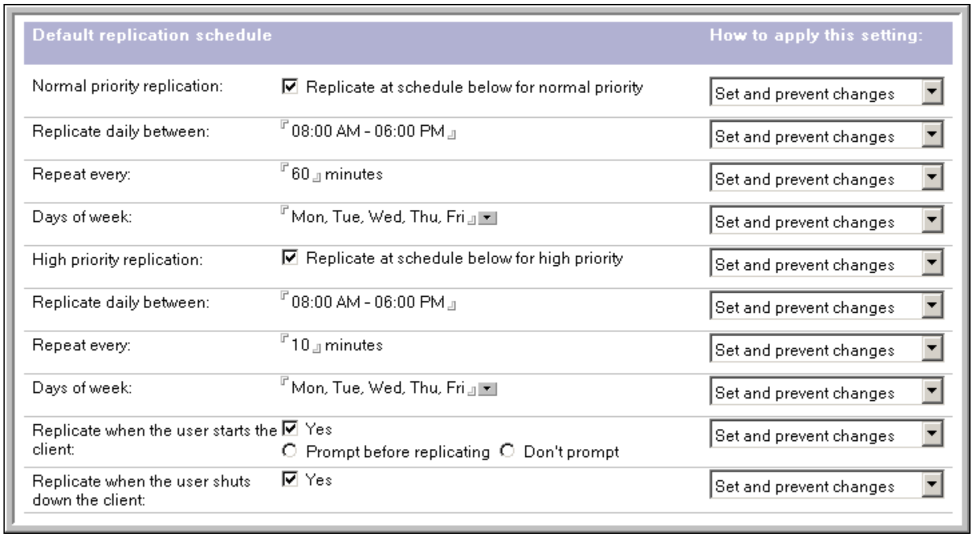
Local Replica Model

Implementing local replica-based mail allows users to access databases on the workstation without requiring a connection to a Domino server. This approach provides advantages for users who are connected over a Wide Area Network or a Virtual Private Network, as the operations of sending and receiving mail happen without the user noticing. By performing these operations in the background, slight errors in network communication will not be known to the user. As new messages are kept locally until sent, your system will not hang in the Lotus Notes client when a server connection is slow or lost.

For the consolidated environment, Lotus Notes clients will be configured to connect to a primary and secondary e-mail server at the closest geographic site. The local replication model will be used and new messages will be synchronized with the servers in a high priority replication interval of 5–10 minutes. Addressing services will be provided by a condensed directory replicated to the local Lotus Notes client on a normal replication cycle of 30–60 minutes. Applications will be replicated following the normal replication cycle. Lotus Notes 8 clients will use the integrated instant messaging services linked to a clustered Sametime instant messaging server.

The desktop policies include a section that allows you to set and enforce replication on end users' workstations. In previous versions of Lotus Notes/Domino, there was no way to set and/or enforce replication to the end user's desktop. This allowed some users to disable replication or set the replication threshold at one minute or less.

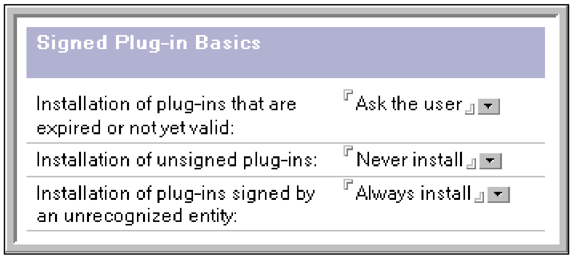
The following screenshot outlines the replication settings available through the desktop policy. All options have the new **How to apply this setting** feature to enhance the setting of standards throughout the environment:



| Default replication schedule | | How to apply this setting: |
|---|---|---|
| Normal priority replication: | ☑ Replicate at schedule below for normal priority | Set and prevent changes |
| Replicate daily between: | 08:00 AM - 06:00 PM | Set and prevent changes |
| Repeat every: | 60 minutes | Set and prevent changes |
| Days of week: | Mon, Tue, Wed, Thu, Fri | Set and prevent changes |
| High priority replication: | ☑ Replicate at schedule below for high priority | Set and prevent changes |
| Replicate daily between: | 08:00 AM - 06:00 PM | Set and prevent changes |
| Repeat every: | 10 minutes | Set and prevent changes |
| Days of week: | Mon, Tue, Wed, Thu, Fri | Set and prevent changes |
| Replicate when the user starts the client: | ☑ Yes<br>○ Prompt before replicating ○ Don't prompt | Set and prevent changes |
| Replicate when the user shuts down the client: | ☑ Yes | Set and prevent changes |

# Security policy settings document

The security policy settings document has been enhanced to allow administrators to better manage Lotus Notes and Internet passwords, configure password policies, set up key rollover, and manage administration **Execution Control Lists** (**ECLs**). In addition to these features, the security policy document in Lotus Domino 8 has been enhanced to account for the installation of Eclipse-based plugins. There are three options that can be configured within the security policy document under the **Signed Plug-in Basics** tab, as shown in the following screenshot:



Signed Plug-in Basics

| | |
|---|---|
| Installation of plug-ins that are expired or not yet valid: | Ask the user |
| Installation of unsigned plug-ins: | Never install |
| Installation of plug-ins signed by an unrecognized entity: | Always install |

Each option has the ability to be configured with one of the following values:

- **Ask the user**
- **Never install**
- **Always install**

# Lotus Domino 8.5 and 8.5.3 policies

In the following sections, we will review some of the new policy enhancements that were introduced in Lotus Notes/Domino 8.5 through 8.5.3. These include:

- Dynamic policy settings
- Roaming policy settings
- Enabling provider IDs for Widgets policy
- iNotes policies
- Mail quota support in Lite mode

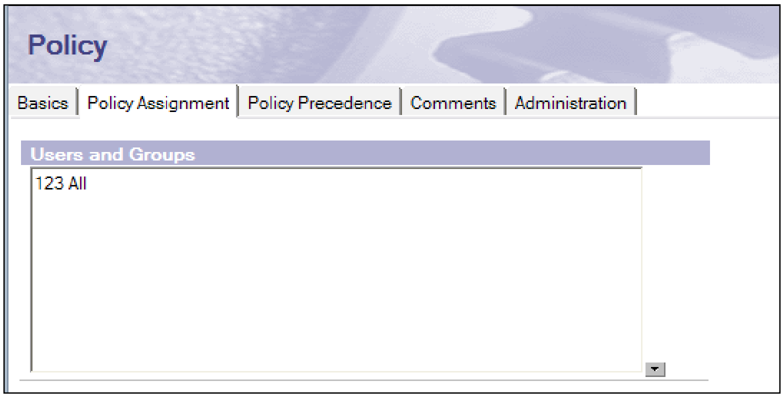
# Dynamic policy settings

In earlier releases of Lotus Notes/Domino, there were two types of policies. They are as follows:

- **Organizational policies**: Organizational policies are based on the user's hierarchical name and are applied to all users that are registered to a particular organizational unit. If a user is moved into that organizational unit, the policy will be applied.
- **Explicit policies**: Explicit policies can be assigned to a particular user, or group of users. When assigning the policy to a group, the tool would assign the policy to every user in the group. This, however, will only run once, at the time you assigned the policy. If users were added to the group after the policy had been assigned, they would not receive the policy.

New to Lotus Notes/Domino 8.5 is the Dynamic Group support for policies, which allows the Domino administrator the ability to assign user policy settings to a user group by specifying the group name in a policy document. Dynamic policies allow the Domino administrator to set an explicit policy with the group name in it. When users are added to the group, they are automatically added to the policies. This reduces the amount of time and effort it takes for the Domino administrator to manage policies. Once the dynamic policy is created, it never needs to be touched again to update who it is assigned to. Just updating the group will take care of this.

To enable this feature, you can go to the **Policy Assignment** tab in the primary **Policy** document (not a settings document), as shown in the following screenshot:



Users and Groups

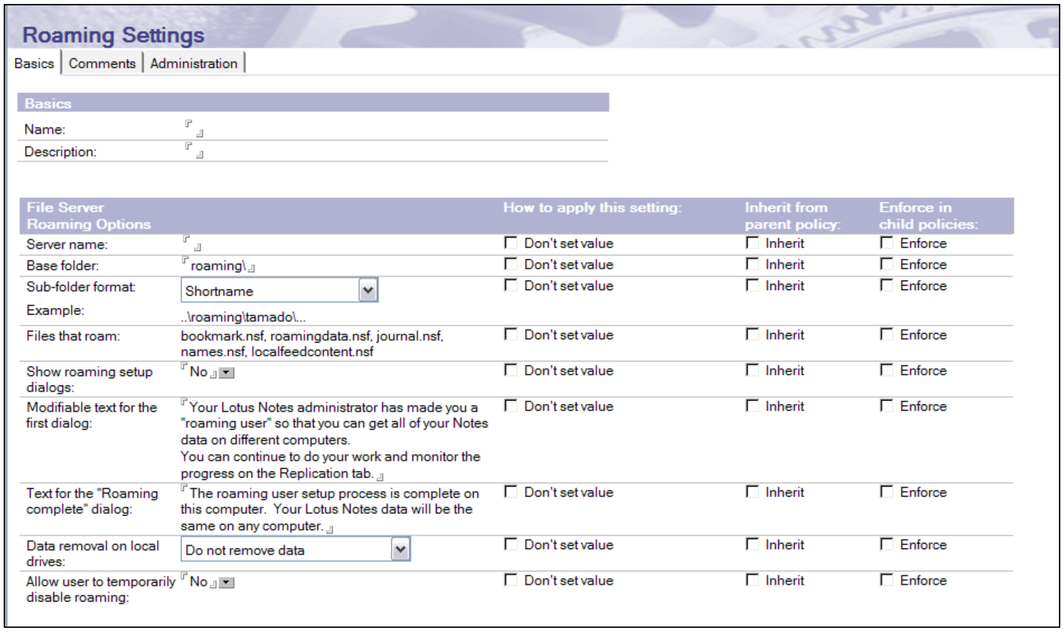
123 All

For this feature to work, the client software version must be 8.0 or greater and the user's home server version must be at least 8.5.

# Roaming policy settings

New to Lotus Notes 8.5 is the file server roaming feature that addresses the needs of customers in remote locations who do not have a "local" Lotus Domino server, yet need a way for users to roam between multiple workstations. Unlike Domino server roaming, where the client operating system can be Windows, Linux, or Macintosh, File Server Roaming is restricted to Windows only.

Users who are configured for file server roaming have a new Lotus Notes User Preference that enables them to manually enable and disable roaming. To configure file server roaming, use the new **Roaming Settings** document as shown in the following screenshot:



Basics

Name:

Description:

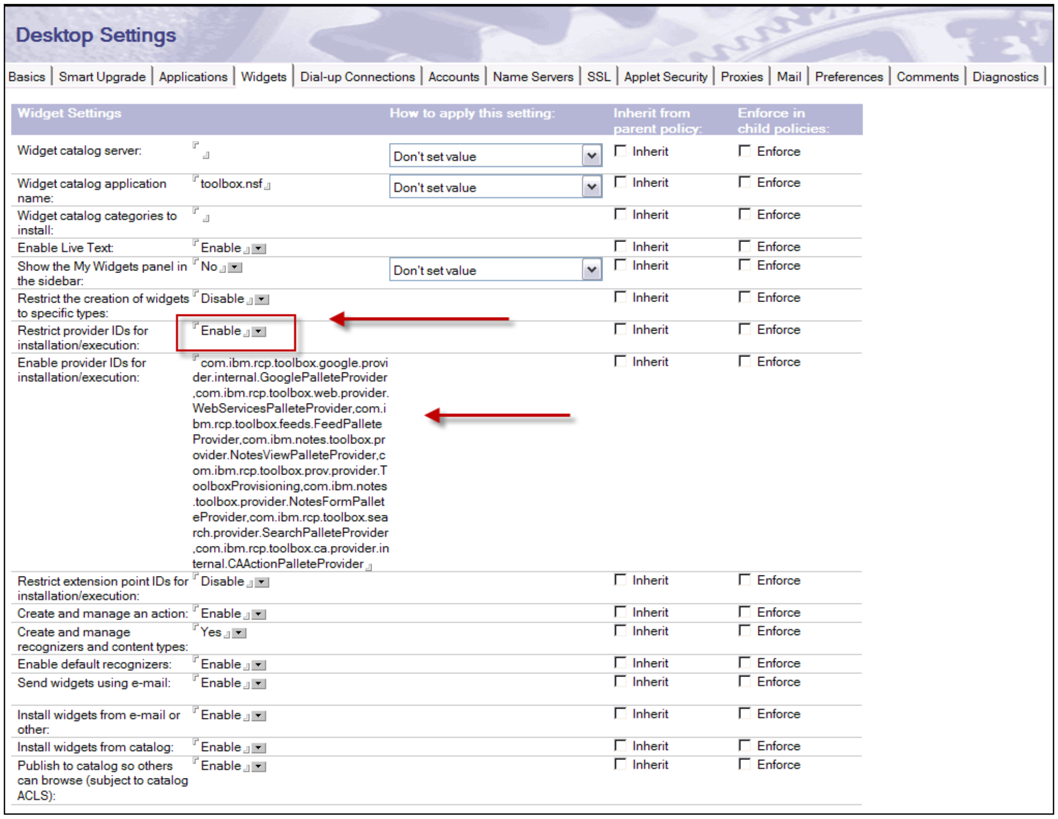
| File Server Roaming Options | | How to apply this setting: | Inherit from parent policy: | Enforce in child policies: |
|---|---|---|---|---|
| Server name: | | ☐ Don't set value | ☐ Inherit | ☐ Enforce |
| Base folder: | roaming\ | ☐ Don't set value | ☐ Inherit | ☐ Enforce |
| Sub-folder format: | Shortname | ☐ Don't set value | ☐ Inherit | ☐ Enforce |
| Example: | ..\roaming\tamado\... | | | |
| Files that roam: | bookmark.nsf, roamingdata.nsf, journal.nsf, names.nsf, localfeedcontent.nsf | ☐ Don't set value | ☐ Inherit | ☐ Enforce |
| Show roaming setup dialogs: | No | ☐ Don't set value | ☐ Inherit | ☐ Enforce |
| Modifiable text for the first dialog: | Your Lotus Notes administrator has made you a "roaming user" so that you can get all of your Notes data on different computers.<br>You can continue to do your work and monitor the progress on the Replication tab. | ☐ Don't set value | ☐ Inherit | ☐ Enforce |
| Text for the "Roaming complete" dialog: | The roaming user setup process is complete on this computer. Your Lotus Notes data will be the same on any computer. | ☐ Don't set value | ☐ Inherit | ☐ Enforce |
| Data removal on local drives: | Do not remove data | ☐ Don't set value | ☐ Inherit | ☐ Enforce |
| Allow user to temporarily disable roaming: | No | ☐ Don't set value | ☐ Inherit | ☐ Enforce |

Once the policy is set up, the end user's client must be able to access the file server. In addition, the users must have read/write/modify access to the directory. The roaming user's files are encrypted on the file server for security.

> Policies cannot be used to configure the Domino server roaming in the 8.5 release. The **Roaming Settings** document applies only to file server roaming.

## Enabling provider IDs for the Widgets policy

Enabling provider IDs for the Widgets policy is a new setting under the **Widget** tab (see the following screenshot). It will allow an administrator to control the widget and to allow live text functionality to selected users. This setting will allow the administrator to define what widgets the users can install:

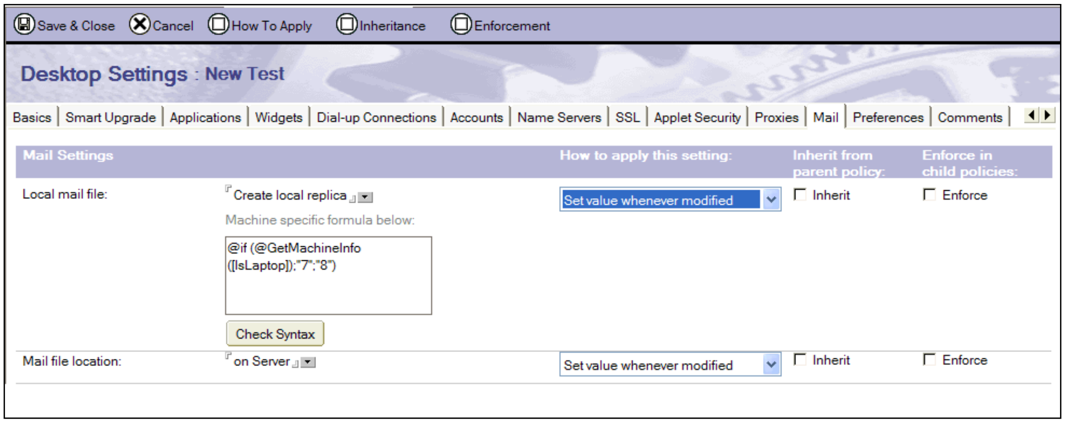


| Widget Settings | | How to apply this setting: | Inherit from parent policy: | Enforce in child policies: |
|---|---|---|---|---|
| Widget catalog server: | | Don't set value | ☐ Inherit | ☐ Enforce |
| Widget catalog application name: | toolbox.nsf | Don't set value | ☐ Inherit | ☐ Enforce |
| Widget catalog categories to install: | | | ☐ Inherit | ☐ Enforce |
| Enable Live Text: | Enable | | ☐ Inherit | ☐ Enforce |
| Show the My Widgets panel in the sidebar: | No | Don't set value | ☐ Inherit | ☐ Enforce |
| Restrict the creation of widgets to specific types: | Disable | | ☐ Inherit | ☐ Enforce |
| Restrict provider IDs for installation/execution: | Enable | | ☐ Inherit | ☐ Enforce |
| Enable provider IDs for installation/execution: | com.ibm.rcp.toolbox.google.provider.internal.GooglePalleteProvider,com.ibm.rcp.toolbox.web.provider.WebServicesPalleteProvider,com.ibm.rcp.toolbox.feeds.FeedPalleteProvider,com.ibm.notes.toolbox.provider.NotesViewPalleteProvider,com.ibm.rcp.toolbox.prov.provider.ToolboxProvisioning,com.ibm.notes.toolbox.provider.NotesFormPalleteProvider,com.ibm.rcp.toolbox.search.provider.SearchPalleteProvider,com.ibm.rcp.toolbox.ca.provider.internal.CAActionPalleteProvider | | ☐ Inherit | ☐ Enforce |
| Restrict extension point IDs for installation/execution: | Disable | | ☐ Inherit | ☐ Enforce |
| Create and manage an action: | Enable | | ☐ Inherit | ☐ Enforce |
| Create and manage recognizers and content types: | Yes | | ☐ Inherit | ☐ Enforce |
| Enable default recognizers: | Enable | | ☐ Inherit | ☐ Enforce |
| Send widgets using e-mail: | Enable | | ☐ Inherit | ☐ Enforce |
| Install widgets from e-mail or other: | Enable | | ☐ Inherit | ☐ Enforce |
| Install widgets from catalog: | Enable | | ☐ Inherit | ☐ Enforce |
| Publish to catalog so others can browse (subject to catalog ACLS): | Enable | | ☐ Inherit | ☐ Enforce |

## Machine-specific policies

In Lotus Domino 8.5.3, a new policy has been introduced. This allows an administrator to assign a policy to a user based on the characteristics of the user's machine. For example you could create a policy to use managed replicas, only applied to laptop users. This is implemented by using the `@GetMachineInfo` function. Lotus Notes clients' version must be 8.5.3 for the policy to work.

The following screenshot shows an example of creating a managed replica for a laptop user:

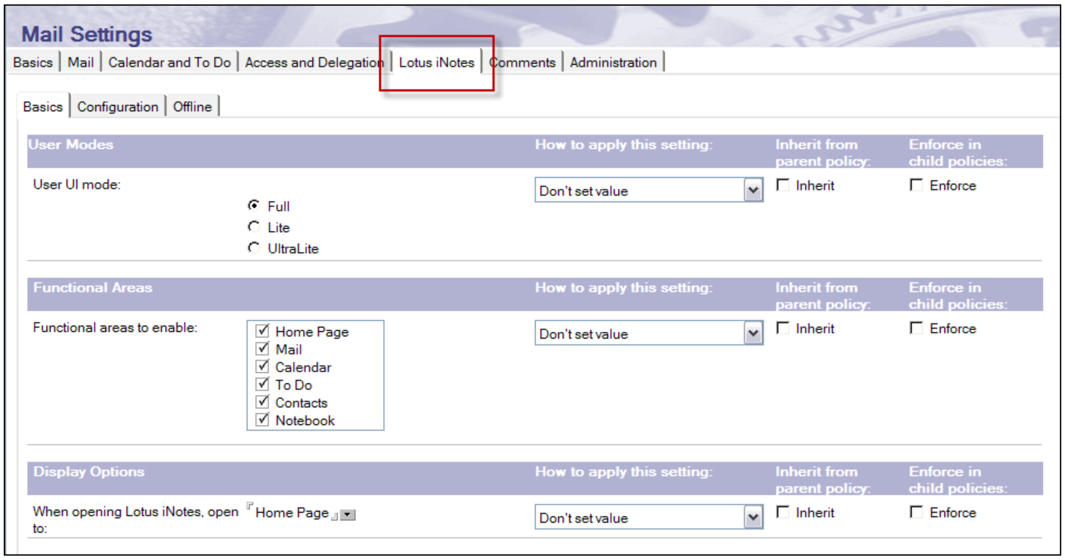

Save & Close
Cancel
How To Apply
Inheritance
Enforcement
Basics
Smart Upgrade
Applications
Widgets
Dial-up Connections
Accounts
Name Servers
SSL
Applet Security
Proxies
Mail
Preferences
Comments
Check Syntax

Desktop Settings : New Test

| Mail Settings | | How to apply this setting: | Inherit from parent policy: | Enforce in child policies: |
|---|---|---|---|---|
| Local mail file: | Create local replica<br>Machine specific formula below:<br>@if (@GetMachineInfo([IsLaptop]);"7";"8") | Set value whenever modified | ☐ Inherit | ☐ Enforce |
| Mail file location: | on Server | Set value whenever modified | ☐ Inherit | ☐ Enforce |

# iNotes policies

New to Lotus Notes 8.5 is the ability to use desktop and mail policies to enforce settings and preferences for iNotes users. This feature is one that has been requested by quite a few customers. The benefit of using policies to enforce settings for iNotes users is that now you can apply them to specific users or groups. Any policy settings that were applied to iNotes users and created in an earlier release will still be enforced after the upgrade. There is an iNotes policy in 8.5.1 that allows you to disable local archiving using a mail policy setting. You can apply this policy to groups or individual users. There is a new **Lotus iNotes** tab on the **Mail Settings** policy document as shown in the following screenshot:


Basics
Mail
Calendar and To Do
Access and Delegation
Lotus iNotes
Comments
Administration
Basics
Configuration
Offline

Mail Settings

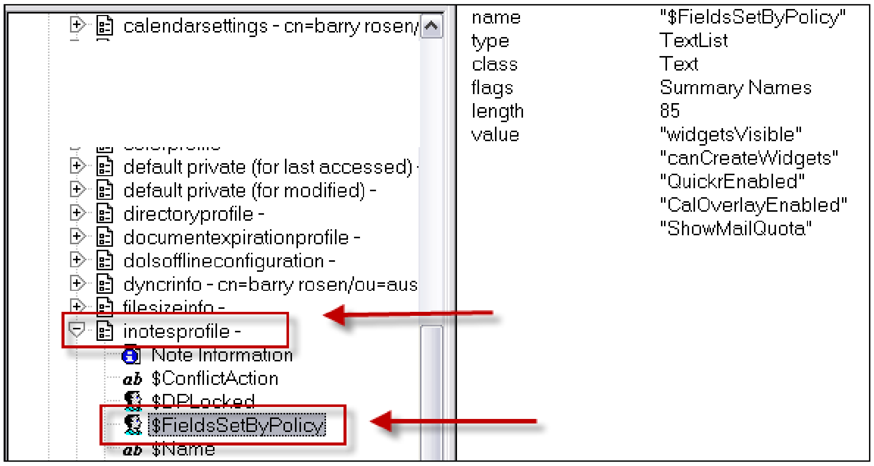
| User Modes | | How to apply this setting: | Inherit from parent policy: | Enforce in child policies: |
|---|---|---|---|---|
| User UI mode: | ● Full<br>○ Lite<br>○ UltraLite | Don't set value | ☐ Inherit | ☐ Enforce |

| Functional Areas | | How to apply this setting: | Inherit from parent policy: | Enforce in child policies: |
|---|---|---|---|---|
| Functional areas to enable: | ☑ Home Page<br>☑ Mail<br>☑ Calendar<br>☑ To Do<br>☑ Contacts<br>☑ Notebook | Don't set value | ☐ Inherit | ☐ Enforce |

| Display Options | | How to apply this setting: | Inherit from parent policy: | Enforce in child policies: |
|---|---|---|---|---|
| When opening Lotus iNotes, open to: | Home Page | Don't set value | ☐ Inherit | ☐ Enforce |

> Starting in iNotes 8.5.1, Archive policies for archiving to the server only are supported.

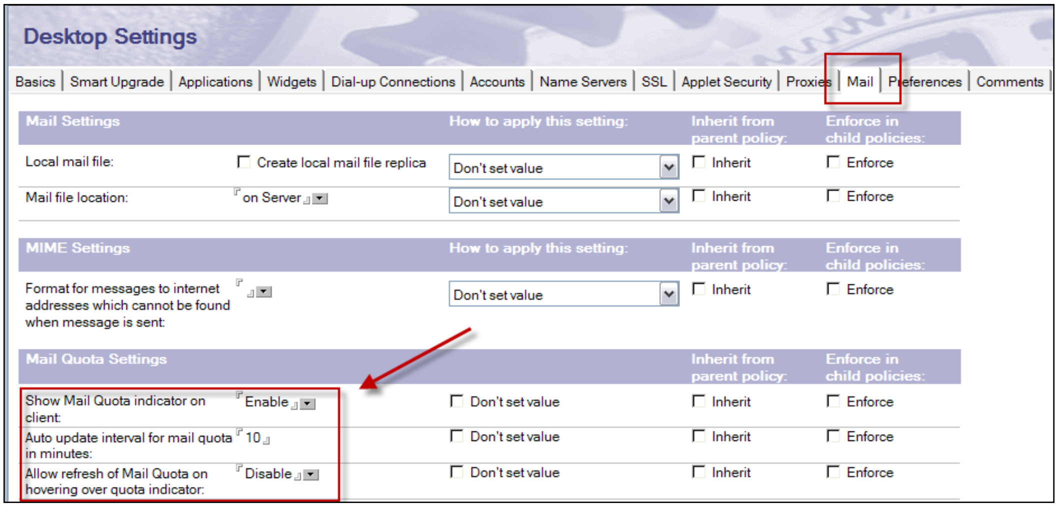
With the Notes client, the **Dynamic Client Configuration** (**DCC**) is what propagates the policy. By default, DCC runs automatically on the first authentication with the users' home mail server, after the policy has been set. But with iNotes, policies are propagated after the AdminP runs as scheduled, or when you manually run the `tell AdminP process mail policy` command. The user must log out of the browser and log back in for the policy to take effect. Policies that are deployed to the client are stored in the local address book in the **$contacts** view. Now with policies in iNotes, they are stored in the mail file itself. To check this, you need to view the mail file with NotesPeek. In NotesPeek navigate to **Profiles** | **inotesprofile** and look for the **$FieldsSetByPolicy** item. This item lists the preferences that have been set via policy, as shown in the following screenshot:


calendarsettings - cn=barry rosen/
default private (for last accessed) -
default private (for modified) -
directoryprofile -
documentexpirationprofile -
dolsofflineconfiguration -
dyncrinfo - cn=barry rosen/ou=aus
filesizeinfo -
inotesprofile -
Note Information
$ConflictAction
$DPLocked
$FieldsSetByPolicy
$Name

| | |
|---|---|
| name | "$FieldsSetByPolicy" |
| type | TextList |
| class | Text |
| flags | Summary Names |
| length | 85 |
| value | "widgetsVisible"<br>"canCreateWidgets"<br>"QuickrEnabled"<br>"CalOverlayEnabled"<br>"ShowMailQuota" |

## Mail quota support in Lite mode

One of several new settings that can be set in policy documents is Mail quota support in Lite mode. This policy can be found in the desktop policies document under the **Mail** tab. The following screenshot shows the **Desktop Settings** document:

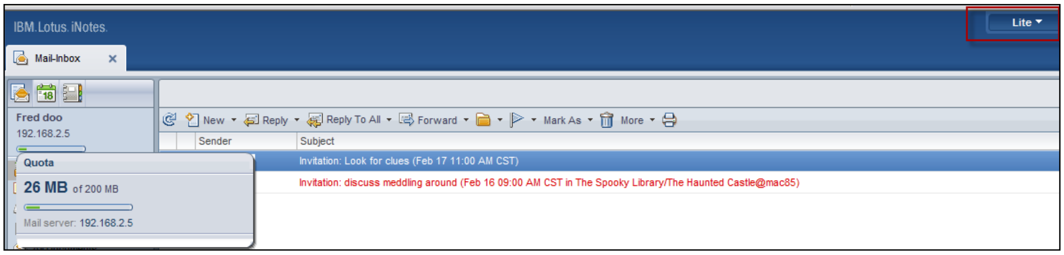

Desktop Settings
Basics | Smart Upgrade | Applications | Widgets | Dial-up Connections | Accounts | Name Servers | SSL | Applet Security | Proxies | Mail | Preferences | Comments

| Mail Settings | | How to apply this setting: | Inherit from parent policy: | Enforce in child policies: |
|---|---|---|---|---|
| Local mail file: | ☐ Create local mail file replica | Don't set value | ☐ Inherit | ☐ Enforce |
| Mail file location: | on Server | Don't set value | ☐ Inherit | ☐ Enforce |

| MIME Settings | | How to apply this setting: | Inherit from parent policy: | Enforce in child policies: |
|---|---|---|---|---|
| Format for messages to internet addresses which cannot be found when message is sent: | | Don't set value | ☐ Inherit | ☐ Enforce |

| Mail Quota Settings | | | Inherit from parent policy: | Enforce in child policies: |
|---|---|---|---|---|
| Show Mail Quota indicator on client: | Enable | ☐ Don't set value | ☐ Inherit | ☐ Enforce |
| Auto update interval for mail quota in minutes: | 10 | ☐ Don't set value | ☐ Inherit | ☐ Enforce |
| Allow refresh of Mail Quota on hovering over quota indicator: | Disable | ☐ Don't set value | ☐ Inherit | ☐ Enforce |

The following screenshot shows how it appears to the user in the browser:


IBM.Lotus. iNotes.
Lite
Mail-Inbox
New
Reply
Reply To All
Forward
Mark As
More
Sender
Subject

Fred doo
192.168.2.5

Quota
26 MB of 200 MB
Mail server: 192.168.2.5

Invitation: Look for clues (Feb 17 11:00 AM CST)

Invitation: discuss meddling around (Feb 16 09:00 AM CST in The Spooky Library/The Haunted Castle@mac85)

Some other features that can be controlled in iNotes and iNotes Lite through a desktop policy document are mark documents read when viewed in the preview pane, sign mail that is sent, encrypt mail that is sent, as well as prompt when a new mail arrives. For a full list of desktop policy settings that can be applied to iNotes and iNotes Lite user, see the IBM Lotus Domino and Notes Information Center.

Now you can push the Eclipse preferences and `notes.ini` settings during client installation or upgradation, as well as deployment of the Notes client features and plugins, using widget deployment methods. This can be found on the **Custom Settings** tab on the desktop policy.

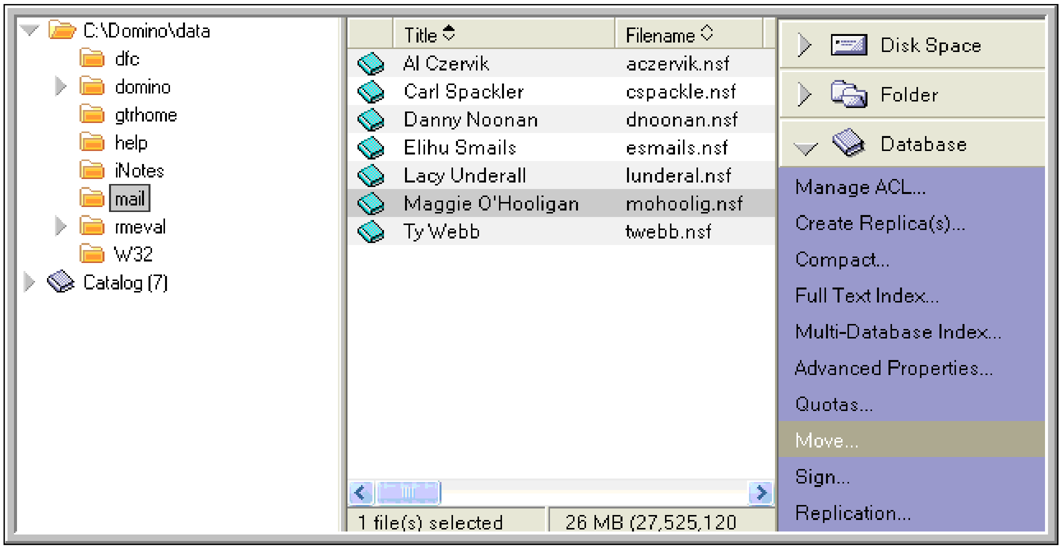
You can use the `notes.ini` setting, `quotawarningtext=<value>`, to specify the URL or the text that will be displayed when a Notes user's mail file size exceeds the mail quota threshold or the maximum mail quota size. In the `notes.ini` setting, you specify a URL or actual text that will display. One message you can provide to your users is instructions for reducing the size of their mail file.

# Database redirect

In previous releases of Notes/Domino, when the administrator moved or deleted a database, it was sometimes difficult to have end users redirect their links to the new location or (in the case of deletion) shift them to a replica. To address this, Domino 8 introduced a new feature called database redirect.

## Redirecting when databases are moved

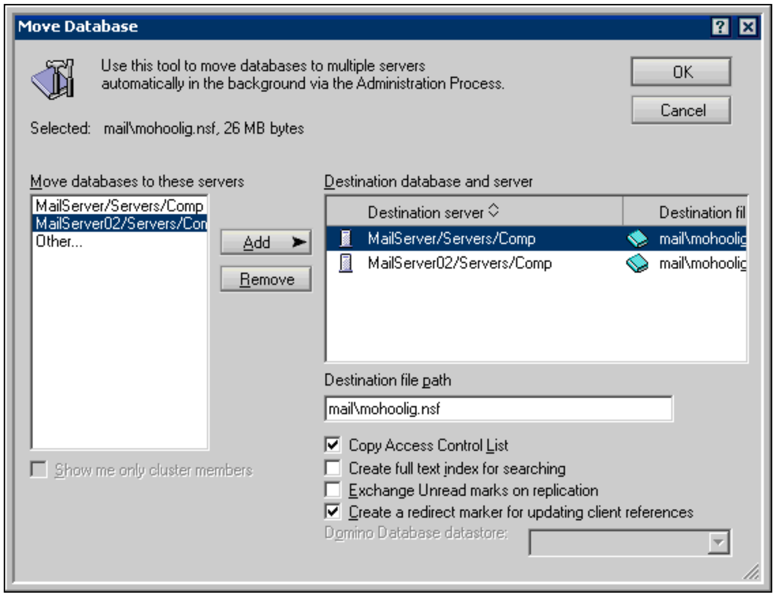
To redirect to a database that has been moved, open the administration client and select the database under the files tab. Then, in the right-hand pane, go to **Database** | **Move....**:


C:\Domino\data
dfc
domino
gtrhome
help
iNotes
mail
rmeval
W32
Catalog (7)
Disk Space
Folder
Database
Manage ACL...
Create Replica(s)...
Compact...
Full Text Index...
Multi-Database Index...
Advanced Properties...
Quotas...
Move...
Sign...
Replication...

| Title | Filename |
|---|---|
| Al Czervik | aczervik.nsf |
| Carl Spackler | cspackle.nsf |
| Danny Noonan | dnoonan.nsf |
| Elihu Smails | esmails.nsf |
| Lacy Underall | lunderal.nsf |
| Maggie O'Hooligan | mohoolig.nsf |
| Ty Webb | twebb.nsf |

1 file(s) selected 26 MB (27,525,120

You will get a dialog box as shown in the following screenshot. Select the servers to which you want to move the database, and select the directory in which the databases should be placed. In the right-hand pane, select the server, and in the lower right-hand section, check the **Create a redirect marker for updating client references** checkbox. This creates the redirection after the administrative process completes the move:


Move Database
OK
Cancel
Add
Remove
Other...

Use this tool to move databases to multiple servers automatically in the background via the Administration Process.

Selected: mail\mohoolig.nsf, 26 MB bytes

Move databases to these servers
MailServer/Servers/Comp
MailServer02/Servers/Con

Destination database and server

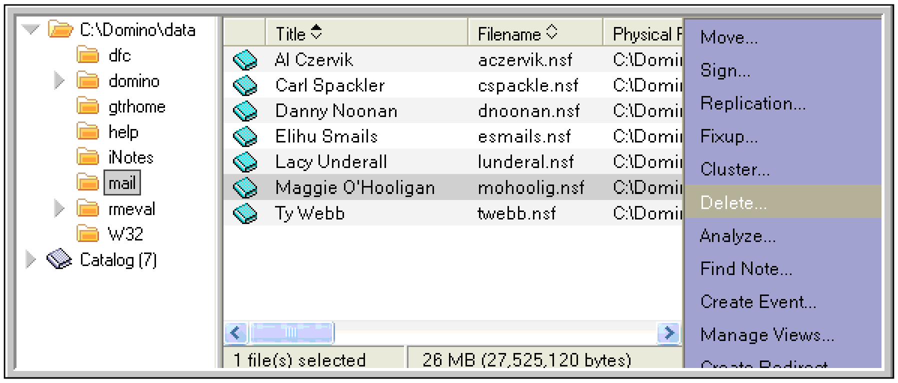
| Destination server | Destination fil |
|---|---|
| MailServer/Servers/Comp | mail\mohoolig |
| MailServer02/Servers/Comp | mail\mohoolig |

Destination file path: mail\mohoolig.nsf

☐ Show me only cluster members
☑ Copy Access Control List
☐ Create full text index for searching
☐ Exchange Unread marks on replication
☑ Create a redirect marker for updating client references
Domino Database datastore:

# Redirecting when databases are deleted

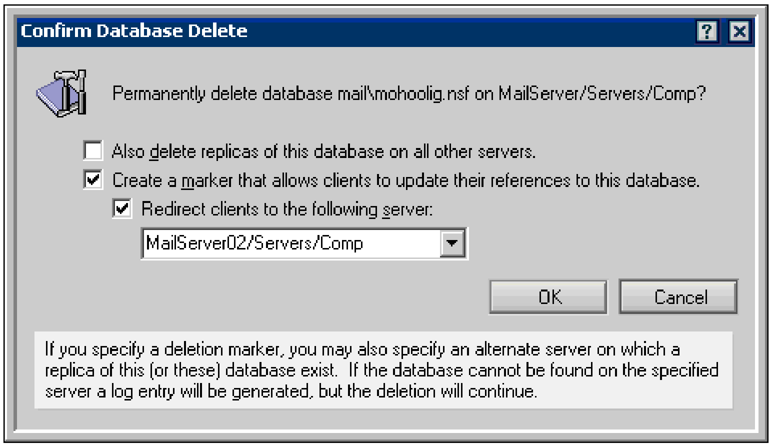
Under the administration client files tab, select the database to be moved. Then, in the right-hand pane, go to **Database** | **Delete**, as shown in the following screenshot:


C:\Domino\data
dfc
domino
gtrhome
help
iNotes
mail
rmeval
W32
Catalog (7)
Move...
Sign...
Replication...
Fixup...
Cluster...
Delete...
Analyze...
Find Note...
Create Event...
Manage Views...

| Title | Filename | Physical F |
|---|---|---|
| Al Czervik | aczervik.nsf | C:\Domi |
| Carl Spackler | cspackle.nsf | C:\Domi |
| Danny Noonan | dnoonan.nsf | C:\Domi |
| Elihu Smails | esmails.nsf | C:\Domi |
| Lacy Underall | lunderal.nsf | C:\Domi |
| Maggie O'Hooligan | mohoolig.nsf | C:\Domi |
| Ty Webb | twebb.nsf | C:\Domi |

1 file(s) selected | 26 MB (27,525,120 bytes)

You will see a dialog box as shown in the following screenshot. In the dialog box, check the **Create a marker that allows clients to update their references to this database** checkbox:



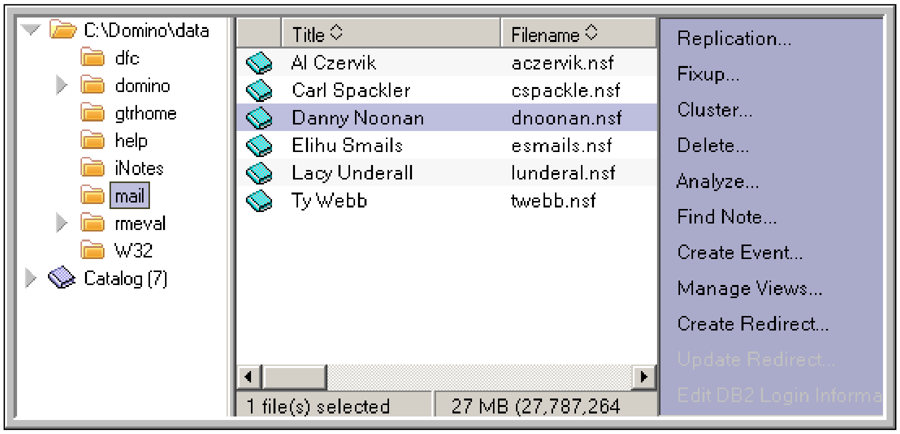
Permanently delete database mail\mohoolig.nsf on MailServer/Servers/Comp?

☐ Also delete replicas of this database on all other servers.
☑ Create a marker that allows clients to update their references to this database.
☑ Redirect clients to the following server:
MailServer02/Servers/Comp

If you specify a deletion marker, you may also specify an alternate server on which a replica of this (or these) database exist. If the database cannot be found on the specified server a log entry will be generated, but the deletion will continue.

Confirm Database Delete
OK
Cancel

Then choose the server to which users will be redirected to access the database. This is very useful when deleting a database on a specific server where the end user population is known:

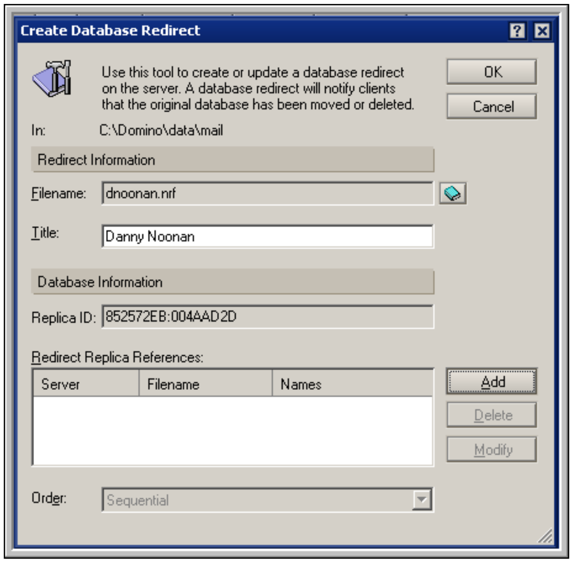


| Title | Filename |
|---|---|
| Al Czervik | aczervik.nsf |
| Carl Spackler | cspackle.nsf |
| Danny Noonan | dnoonan.nsf |
| Elihu Smails | esmails.nsf |
| Lacy Underall | lunderal.nsf |
| Ty Webb | twebb.nsf |

1 file(s) selected 27 MB (27,787,264

C:\Domino\data
dfc
domino
gtrhome
help
iNotes
mail
rmeval
W32
Catalog (7)
Replication...
Fixup...
Cluster...
Delete...
Analyze...
Find Note...
Create Event...
Manage Views...
Create Redirect...
Update Redirect...
Edit DB2 Login Informa

You can then move users to a replica on another server to help the load to balance within the environment. When the dialog box as shown in the following screenshot is displayed, click on the **Add** button to select the replica to which users are to be redirected:


Create Database Redirect
OK
Cancel
Redirect Information
Database Information
Redirect Replica References:
Server
Filename
Names
Add
Delete
Modify

Use this tool to create or update a database redirect on the server. A database redirect will notify clients that the original database has been moved or deleted.

In: C:\Domino\data\mail

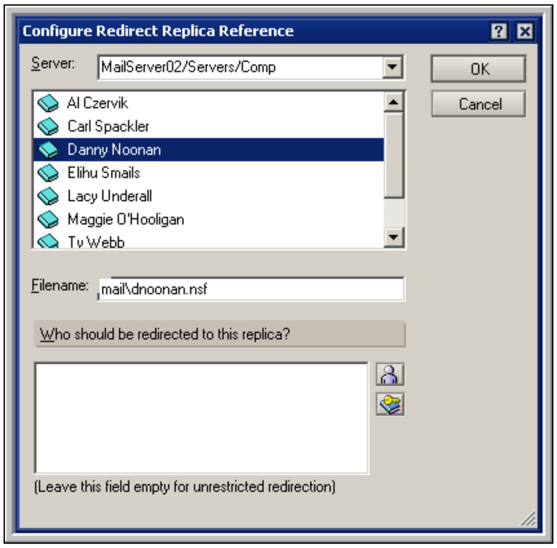
Filename: dnoonan.nrf

Title: Danny Noonan

Replica ID: 852572EB:004AAD2D

Order: Sequential

When selecting the database for redirection, you have the option of selecting which users should be redirected to the replica of the database:


Configure Redirect Replica Reference
OK
Cancel
Al Czervik
Carl Spackler
Danny Noonan
Elihu Smails
Lacy Underall
Maggie O'Hooligan
Ty Webb

Server: MailServer02/Servers/Comp

Filename: mail\dnoonan.nsf

Who should be redirected to this replica?

(Leave this field empty for unrestricted redirection)

Then click on the **OK** button in the dialog box to confirm the redirect.

# Pushing trusted certificates to Notes clients

Cross-certificates can be created in the Domino Directory for Internet certifiers and Lotus Notes certifiers and then pushed down to the local contacts database. Cross-certificates are used to establish client trust of a certifier when accessing servers, reading encrypted S/MIME mail, or installing signed Lotus Notes client plugins. Pushing cross-certificates to users will prevent end users from being prompted to cross-certify. You can also push Internet certifiers to clients and enable users to create cross-certificates themselves. You can do this through Domino security policy settings or through customization of the Lotus Notes client installation kit.

# Summary

In this chapter, we have examined a number of important Notes/Domino 8, 8.5, and 8.5.3 features that can make rolling out your new deployment significantly easier. We discussed client provisioning, including Eclipse-based client and server provisioning functionality. We also looked at policy enhancements and the new database redirect feature. Lotus Notes 8, 8.5, and 8.5.3 have made some great improvements to the policy functionality introduced in the 6.x code stream, making it even easier to control your end users' experience.

In the next chapter, we will cover the new features in releases Lotus Domino 8, and Lotus Domino 8.5 up to Lotus Domino 8.5.3.

# 6

# Domino 8.5.3 Enhancements

The release of Domino 8.5 centered on improvements to overall performance and compatibility. The new releases of Domino server code have focused on reducing the total cost of ownership and simplifying administration for the environment. There are a number of components that are included in the Domino 8.5 release that accelerate these savings—most notably the **Domino Attachment Object Service** (**DAOS**) and Document Body Compression. While the DAOS and compression components have provided accelerated savings within environments, this is only part of the story.

The latest release of Domino provides significant improvements in CPU and disk I/O performance, which offers the opportunity to better consolidate and leverage the hardware in the environment to host more end users. In addition to the performance improvements, significant administrative tools have been added to simplify management of the environment. This is done by enhancing the management of users' identities with ID Vault, access to the environment through the Notes Shared Login feature, and overall system health through the utilization of the Domino Configuration Tuner (DCT). We will discuss the Domino Configuration Tuner (DCT) in detail in *Chapter 11*, *Domino Configuration Tuner*.

The goal of this chapter is to provide an overview of the new enhancements and features that have been included in the latest versions of the Domino product. We will also take a brief look at the future road map of the IBM Lotus Domino product. The IBM Lotus Notes design team is continuously adding enhancements to the product offering, which results in delivering more value to the end user and to the support and administrative processes. This drives down environment costs and delivers enhanced value to the IBM customers.

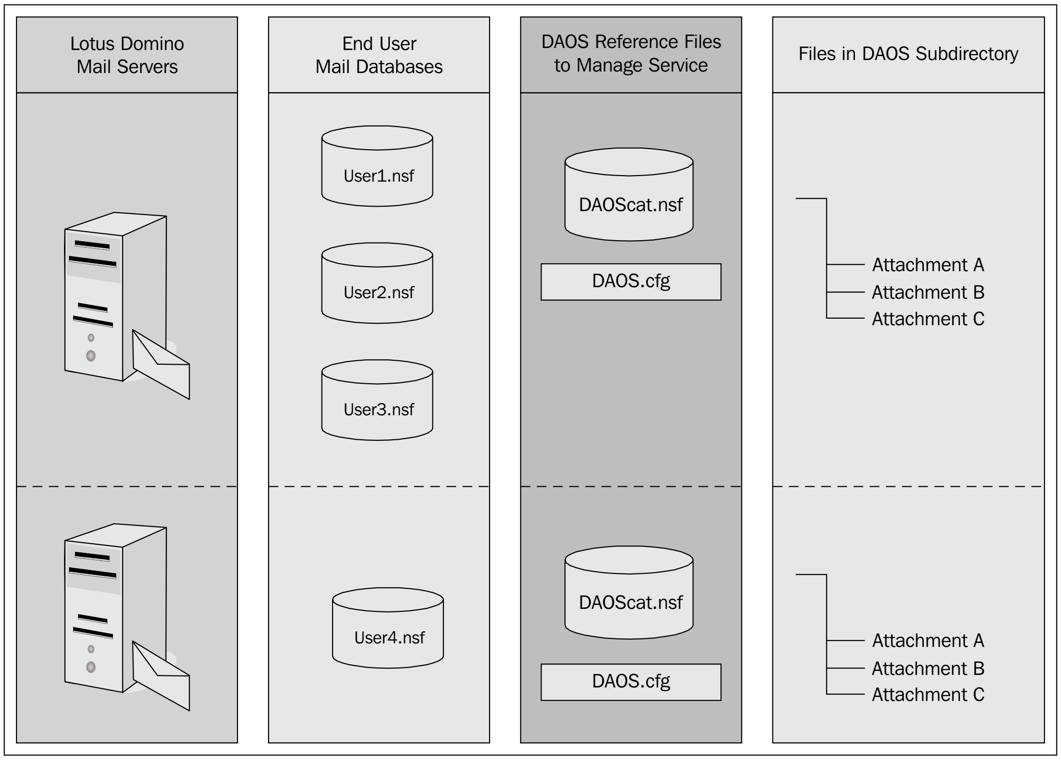
In this chapter, the following topics will be covered:

- Domino Attachment and Object Service
- Document Body Compression
- Lotus Notes Shared Login
- ID Vault
- Auto-populated groups
- Performance enhancements
- iNotes and Quickr integration
- Quickr integration
- The future road map (Project Vulcan)

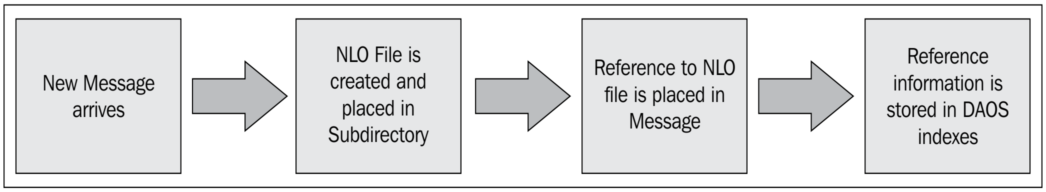
# Domino Attachment and Object Service

Domino Attachment and Object Service was introduced in version 8.5 to address the space issue on Mail and Application servers. In previous versions of Lotus Notes, and later, Domino, there was an implementation of the **Single Copy Object Store** (**SCOS**) that could be employed to reduce the overall footprint of the mail environment. The functional limitations and administrative overhead made the implementation of this technology very difficult in large organizations. With the introduction of DAOS, small and large organizations will be able to gain the benefits of a reduced footprint to deliver an enhanced environment in a more cost-effective manner. The following sections will provide an overview of the DAOS technology and some high-level implementation steps.

The DAOS technology is a process by which the Domino server identifies messages that contain an attachment and then shifts that attachment to the filesystem in the form of a **Notes Large Object** (**NLO**) that is stored in a subdirectory on the server. A reference to the NLO is placed in the end users' mail database, rather than the attachment itself being stored in the mail database. If an attachment is sent to multiple users, references are placed in all of the mail databases, and only one copy of the attachment is stored on the server. If that message is replied to, or forwarded, the reference is included and not the attachment. It is important to note that DAOS stores the attachments on a per server basis. So, if there are four users who sent the message, and if three of the users are located on one server and one of them is located on another server, two copies of the attachment will be placed within DAOS, on separate servers. To aid in the effectiveness of DAOS, grouping the users on a server by department or by functionality is optimal, but not necessary.


Lotus Domino Mail Servers
End User Mail Databases
DAOS Reference Files to Manage Service
Files in DAOS Subdirectory
User1.nsf
User2.nsf
User3.nsf
DAOScat.nsf
DAOS.cfg
Attachment A
Attachment B
Attachment C
User4.nsf
DAOScat.nsf
DAOS.cfg
Attachment A
Attachment B
Attachment C

The DAOS manages the attachments within the environment from the time a new mail arrives. As shown in the following diagram, when a new message arrives at the server, the DAOS removes the attachments from the message for all recipients whose databases are participating in DAOS, creates and moves an NLO file to the DAOS subdirectory, and places a reference in the header of the message:


New Message arrives
NLO File is created and placed in Subdirectory
Reference to NLO file is placed in Message
Reference information is stored in DAOS indexes

> There is an attachment volume limit on the the DAOS repository. In each DAOS subdirectory, the maximum limit is up to 1,000 subdirectories, with a limit of 40,000 files in each, or a total of 40 million attachments.

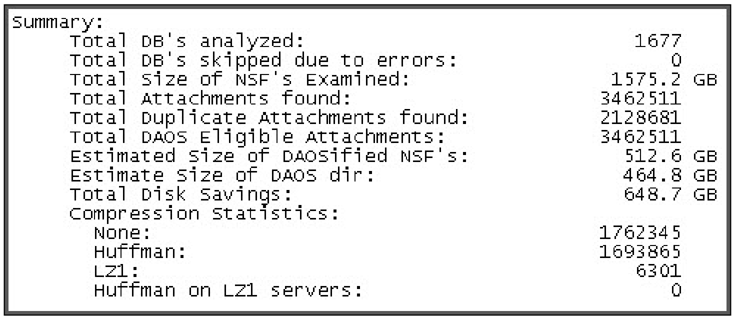
# Advantages of DAOS

A test by Lotus has determined that most Domino environments can achieve savings when DAOS is implemented in the environment. These savings can range from very small numbers, if attachments are not used within the environment, to a very significant number, if end users send attachments extensively. The percentage of reduction to the storage environment will vary, so it is recommended that, prior implementing DAOS, the administration team run a utility to determine the impact.

The Domino development team has created the DAOS Estimator tool, which can perform a scan of all databases on the server and produce a report that will summarize the potential savings to be gained from implementing the tool. For more details, visit the following URL:
`http://www-01.ibm.com/support/docview.wss?rs=463&uid=swg24021920`

> There are a number of articles that have been written outlining the benefits of DAOS that can be used as a reference, but the best reference is always your environment. If you are going to leverage the DAOS Estimator tool, please read the instructions at the preceding URL, and follow the best practices outlined, to ensure minimal impact on the production environment.

The Estimator tool provides a complete breakdown for every database in the environment; the following screenshot displays the summary information that is provided by the Estimator tool. When run on a production environment, the tool outlined a potential saving of 38 percent in storage, as a result of DAOS alone:



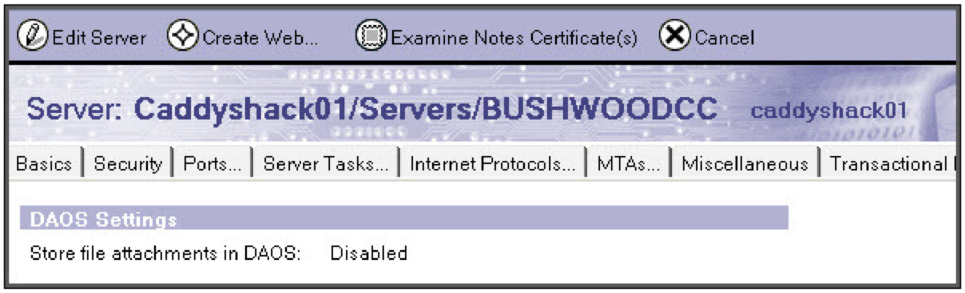
```
Summary:
     Total DB's analyzed:                            1677
     Total DB's skipped due to errors:                  0
     Total Size of NSF's Examined:               1575.2 GB
     Total Attachments found:                     3462511
     Total Duplicate Attachments found:           2128681
     Total DAOS Eligible Attachments:             3462511
     Estimated Size of DAOSified NSF's:            512.6 GB
     Estimate Size of DAOS dir:                    464.8 GB
     Total Disk Savings:                           648.7 GB
     Compression Statistics:
       None:                                      1762345
       Huffman:                                   1693865
       LZ1:                                          6301
       Huffman on LZ1 servers:                          0
```

# Setting up DAOS

Once you have determined that leveraging DAOS in your environment will be productive, it is important to properly configure the environment to support the service. It is important to understand that transaction logging is required to implement DAOS and must be enabled once DAOS is implemented. When a database on a server has DAOS enabled, the contents of the message, including the attachment, are included in the transaction log. If there is a failure on the server and the log is replayed, all of the contents will be written, including the attachment.

Once transaction logging is enabled in the environment, the next step is to ensure that all of the databases are at **On-Disk Structure** (**ODS**) 51. Other features available within Domino, such as compression, require a minimum of ODS 48. Once the ODS is at the proper level, the DAOS service needs to be enabled and configured on the server. To configure the DAOS service, the server configuration document will need to be modified. Please keep in mind that the server will need to be recycled for the settings to take effect; make sure that enabling the service fits within your maintenance windows and the settings have been tested to ensure no end user impact.

Locate the server configuration document that you want to enable DAOS on. Open the server configuration document. Go to the **DAOS** tab and click on the **Edit Server** button.



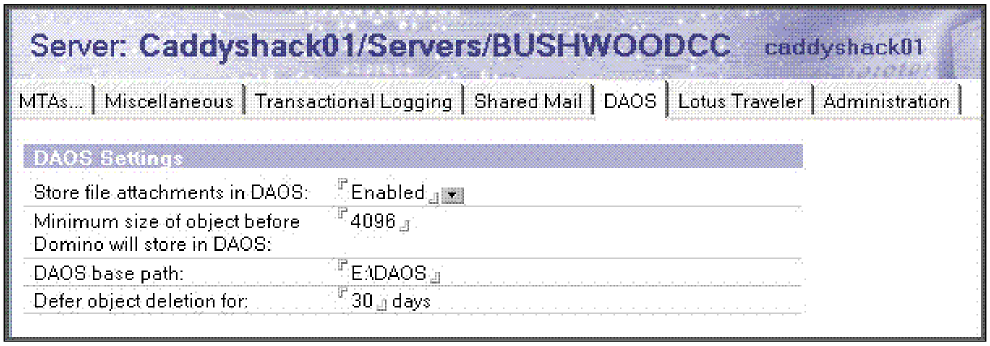
Server: Caddyshack01/Servers/BUSHWOODCC caddyshack01

DAOS Settings

Store file attachments in DAOS: Disabled

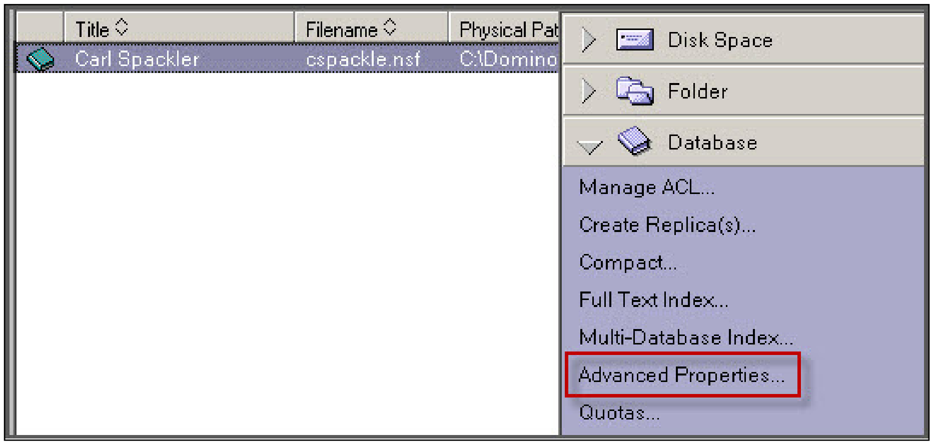
Click on the **Store file attachments in DAOS** drop-down box and change it to **Enabled**. This will expose three additional fields, as shown in the following screenshot. You can configure a minimum size for attachments to participate in the service, and the location of the DAOS path. The DAOS directory can be housed outside of the data directory.

Refer to the Help database and to the DAOS Best Practices document at `http://www-10.lotus.com/ldd/dominowiki.nsf/dx/daos-best-practices`, to ensure proper placement of the directory), and the number of days that attachments will remain in the DAOS directory until they are removed, once the last reference is removed from databases in the environment:

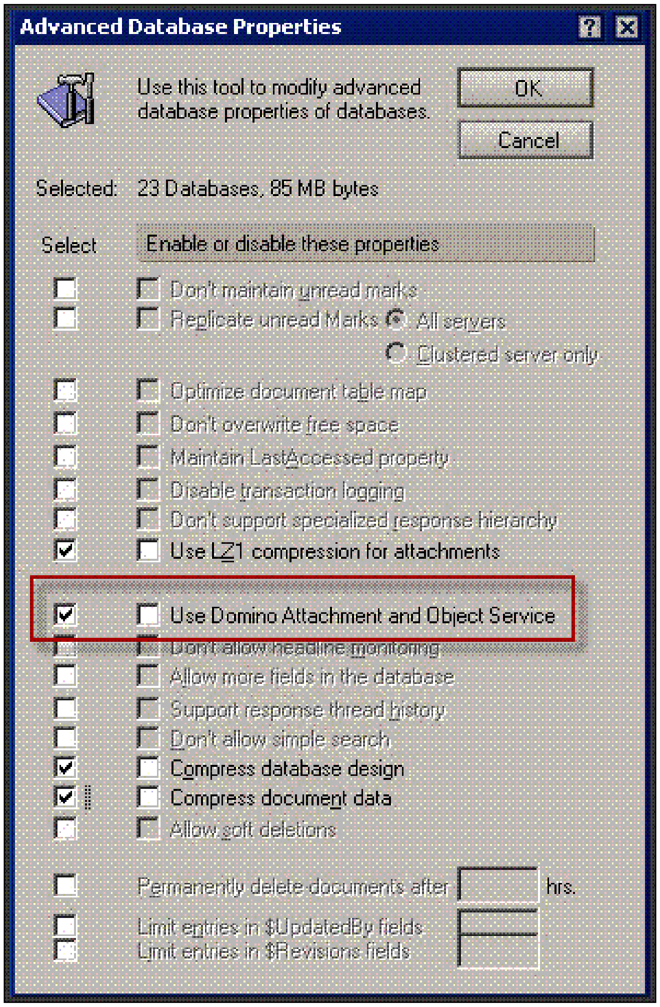

Server: Caddyshack01/Servers/BUSHWOODCC
caddyshack01
MTAs...
Miscellaneous
Transactional Logging
Shared Mail
DAOS
Lotus Traveler
Administration
DAOS Settings

Store file attachments in DAOS: Enabled
Minimum size of object before Domino will store in DAOS: 4096
DAOS base path: E:\DAOS
Defer object deletion for: 30 days

The next step is to enable DAOS on the databases that are intended to leverage the service. In the administrator client on the Files tab, highlight the databases and click on the **Advanced Properties...** button.


Title
Filename
Physical Pat
Carl Spackler
cspackle.nsf
C:\Domino
Disk Space
Folder
Database
Manage ACL...
Create Replica(s)...
Compact...
Full Text Index...
Multi-Database Index...
Advanced Properties...
Quotas...

In the **Advanced Database Properties** dialog box, locate the **Use Domino Attachment and Object Service** option and select it (see the following screenshot). This will include the database in the DAOS service. Once this option is set, the database will have its attachments referenced by the DAOS service. If this option is removed later, the DAOS server will continue to manage attachments for the database until the `compact -c -daos off` command is executed on the database. This will bring the attachments back into the database:



Use this tool to modify advanced database properties of databases.

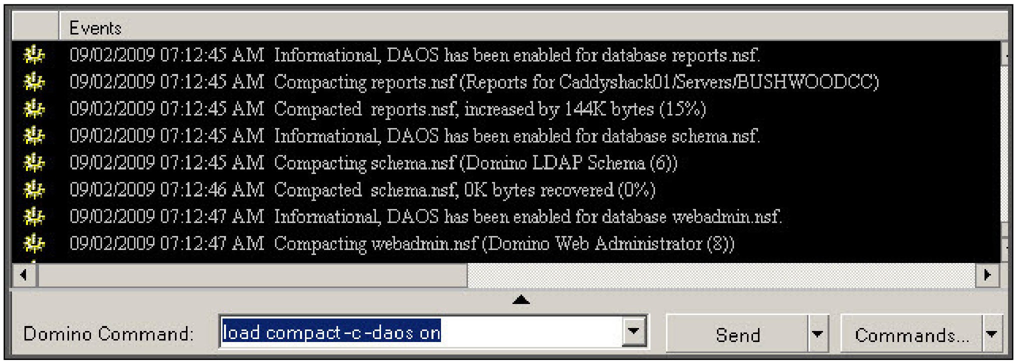
Selected: 23 Databases, 85 MB bytes

Select | Enable or disable these properties

☐ ☐ Don't maintain unread marks
☐ ☐ Replicate unread Marks ● All servers
○ Clustered server only
☐ ☐ Optimize document table map
☐ ☐ Don't overwrite free space
☐ ☐ Maintain LastAccessed property
☐ ☐ Disable transaction logging
☐ ☐ Don't support specialized response hierarchy
☑ ☐ Use LZ1 compression for attachments
☑ ☐ Use Domino Attachment and Object Service
☐ ☐ Don't allow headline monitoring
☐ ☐ Allow more fields in the database
☐ ☐ Support response thread history
☐ ☐ Don't allow simple search
☑ ☐ Compress database design
☑ ☐ Compress document data
☐ ☐ Allow soft deletions
☐ Permanently delete documents after hrs.
☐ Limit entries in $UpdatedBy fields
☐ Limit entries in $Revisions fields

Now the server has been configured and all current databases that need to be included in the DAOS server have also been configured. To enable new databases to be included in the DAOS environment, the `notes.ini` file needs to be modified to include this `Create_R85_Databases=1`. Once this setting is included, newly created databases will be included.

To this point, the server is configured for DAOS, the current databases have been set to be included in the service, and all future databases will be included, but no legacy data has been moved to the service to start the process of saving data. To include current data on the DAOS server, from the administration clients' server console, execute the `load compact -c -daos on` command, as shown in the following screenshot:



```
09/02/2009 07:12:45 AM Informational, DAOS has been enabled for database reports.nsf.
09/02/2009 07:12:45 AM Compacting reports.nsf (Reports for Caddyshack01/Servers/BUSHWOODCC)
09/02/2009 07:12:45 AM Compacted  reports.nsf, increased by 144K bytes (15%)
09/02/2009 07:12:45 AM Informational, DAOS has been enabled for database schema.nsf.
09/02/2009 07:12:45 AM Compacting schema.nsf (Domino LDAP Schema (6))
09/02/2009 07:12:46 AM Compacted  schema.nsf, 0K bytes recovered (0%)
09/02/2009 07:12:47 AM Informational, DAOS has been enabled for database webadmin.nsf.
09/02/2009 07:12:47 AM Compacting webadmin.nsf (Domino Web Administrator (8))
```

Domino Command: `load compact -c -daos on`

The implementation of DAOS does not have an impact on the quota or limits that are put in place within the environment. The logical size of a mail file will include the elements that are stored in the DAOS service. For example, if a user's mail database is identified as 260 MB, the actual physical size of the database on the server may be 150 MB.

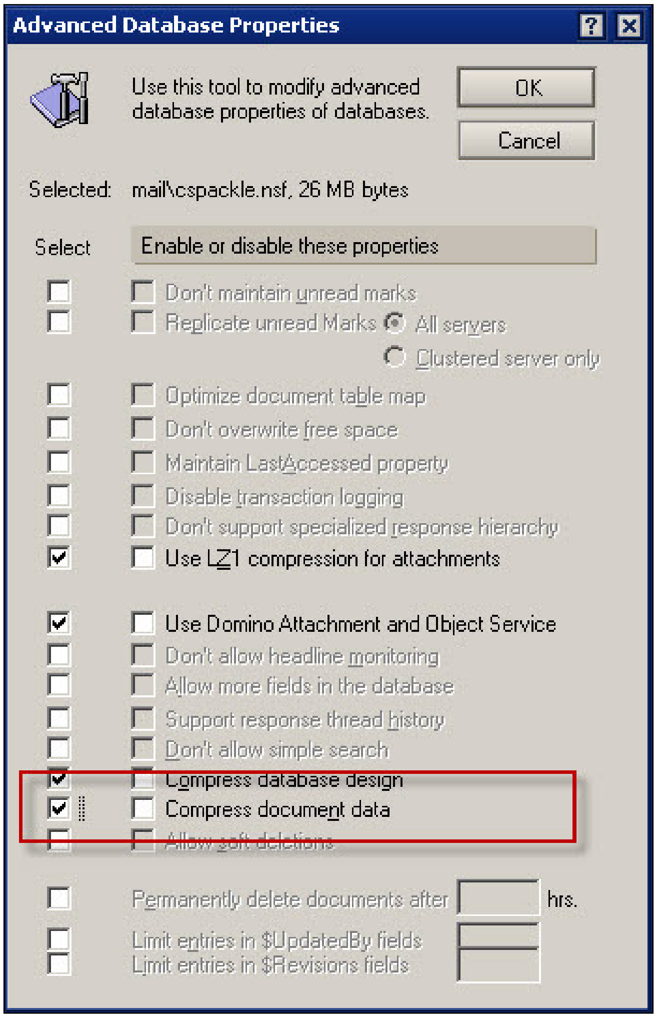
# Document Body Compression

With the expanding use of graphics within the body of e-mail messages and the growth of high resolution graphics in signature files, a large volume of storage is being consumed. While DAOS is effective in removing the attachments from an e-mail, Document Body Compression is designed to reduce the overall storage requirements by compressing elements within the body of the message. The process of compressing non-summary information within the body of a message has been shown to reduce the overall mail database requirements by up to 60 percent. This compression feature requires that databases be at a minimum of ODS 48. Later versions of the ODS, such as ODS 51, which is provided in version 8.5, can also be leveraged. Please refer to the Domino 8.5 Administration Help for more current information on how to update the ODS version on databases.

In addition to upgrading the servers to 8.0.1 (as a minimum) and the ODS (ODS 48 as a minimum), the databases will need to be enabled for future documents and the older documents already present in the databases.

To enable compression on future documents, the **Compress document data** checkbox under **Advanced Database Properties...** needs to be checked. The process can be done on an individual database (or on a group of databases) through the administration client, by going to the Files view, selecting the files and clicking on **Advanced Properties...** on the sidebar.

There are a number of different options that are available on the **Advanced Database Properties...** tab; the selections on your databases may be different from what is presented in the following example. Locate the **Compress document data** option and select it. Click on the **OK** button to apply the settings for the selected databases, as shown in the following screenshot:



Use this tool to modify advanced database properties of databases.

Selected: mail\cspackle.nsf, 26 MB bytes

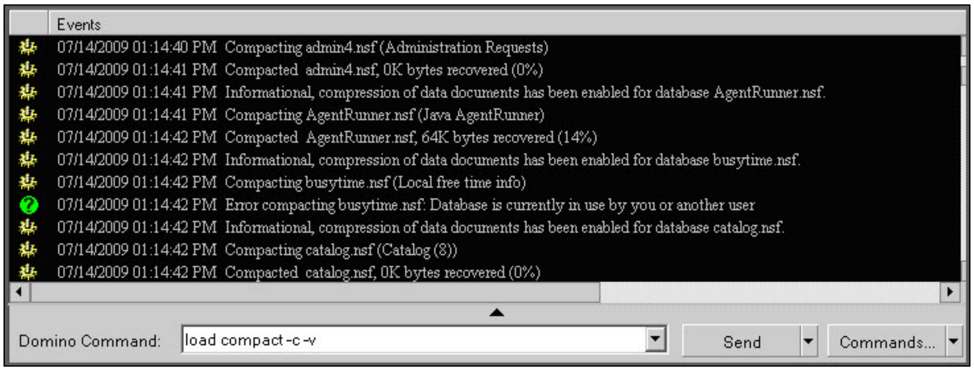
Select | Enable or disable these properties

☐ ☐ Don't maintain unread marks
☐ ☐ Replicate unread Marks ● All servers
○ Clustered server only
☐ ☐ Optimize document table map
☐ ☐ Don't overwrite free space
☐ ☐ Maintain LastAccessed property
☐ ☐ Disable transaction logging
☐ ☐ Don't support specialized response hierarchy
☑ ☐ Use LZ1 compression for attachments

☑ ☐ Use Domino Attachment and Object Service
☐ ☐ Don't allow headline monitoring
☐ ☐ Allow more fields in the database
☐ ☐ Support response thread history
☐ ☐ Don't allow simple search
☑ ☐ Compress database design
☑ ☐ Compress document data
☐ ☐ Allow soft deletions

☐ Permanently delete documents after ☐ hrs.
☐ Limit entries in $UpdatedBy fields
☐ Limit entries in $Revisions fields

The next step is to go back and compress the data that already exists within the databases. From the administration clients' server console, execute the `load compact –c -v` command:



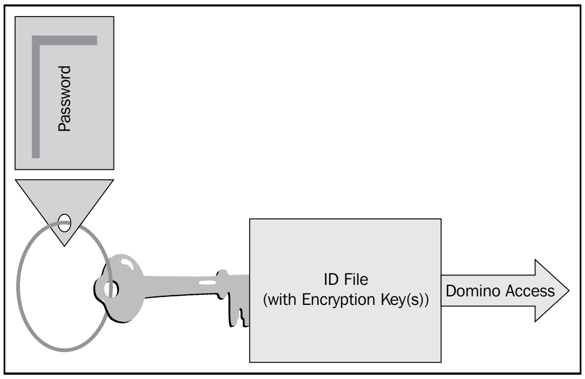
```
Events
07/14/2009 01:14:40 PM  Compacting admin4.nsf (Administration Requests)
07/14/2009 01:14:41 PM  Compacted  admin4.nsf, 0K bytes recovered (0%)
07/14/2009 01:14:41 PM  Informational, compression of data documents has been enabled for database AgentRunner.nsf.
07/14/2009 01:14:41 PM  Compacting AgentRunner.nsf (Java AgentRunner)
07/14/2009 01:14:42 PM  Compacted  AgentRunner.nsf, 64K bytes recovered (14%)
07/14/2009 01:14:42 PM  Informational, compression of data documents has been enabled for database busytime.nsf.
07/14/2009 01:14:42 PM  Compacting busytime.nsf (Local free time info)
07/14/2009 01:14:42 PM  Error compacting busytime.nsf: Database is currently in use by you or another user
07/14/2009 01:14:42 PM  Informational, compression of data documents has been enabled for database catalog.nsf.
07/14/2009 01:14:42 PM  Compacting catalog.nsf (Catalog (8))
07/14/2009 01:14:42 PM  Compacted  catalog.nsf, 0K bytes recovered (0%)
```

Domino Command: load compact -c -v

The databases will participate in document body compression until the administration team decompresses the data. To decompress the data within the databases that have been compressed, from the administration clients' server console, execute the `load compact –c -v` command.

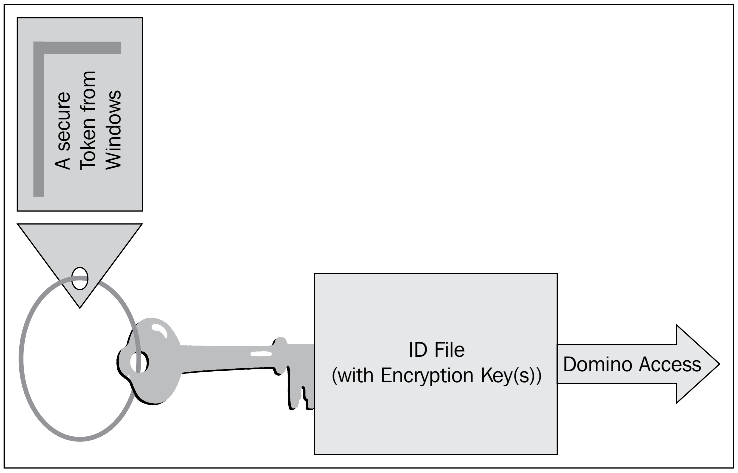
# Lotus Notes Shared Login

Previous versions of the Lotus Notes environment had a single-login feature that leveraged the Lotus Notes ID functionality. An additional set of files and functionality were installed to pass the Windows password to the Client Single Logon feature. When the user logged into a Windows-based workstation, the feature captured the password that was utilized and then presented that password on login to the Notes environment. The standard way to access the Notes environment is to leverage the native password to unlock the ID file.



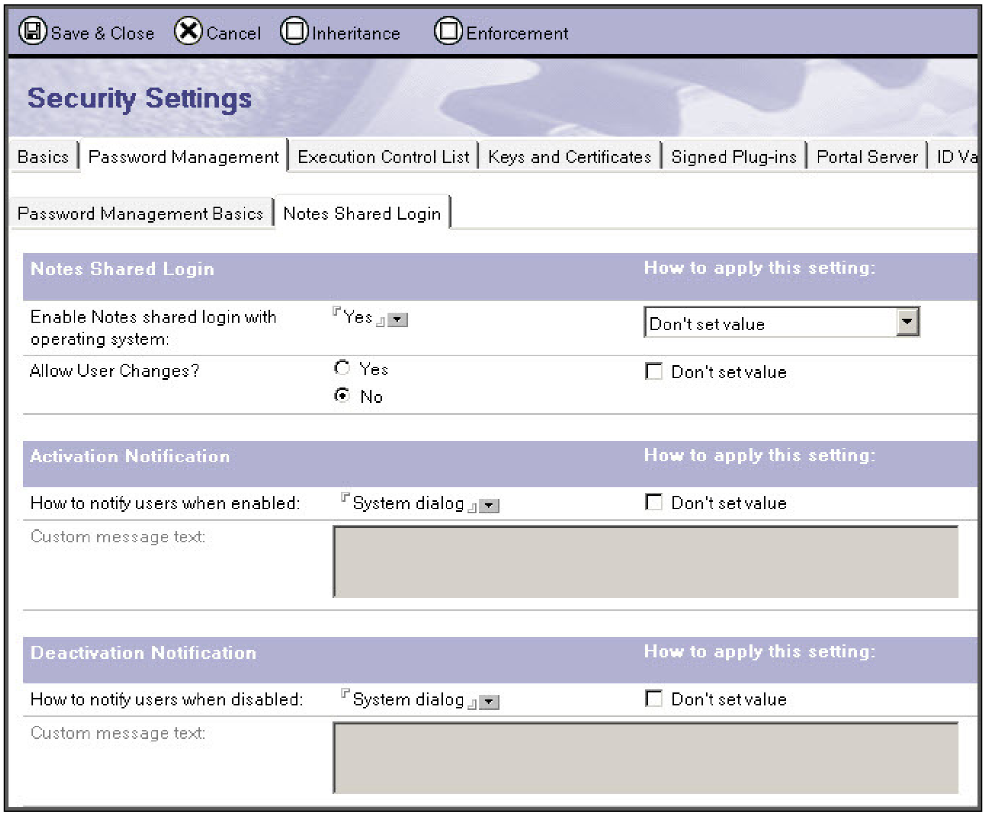
The client single-login feature required that the Windows and Notes passwords be synchronized. When either password was changed, the user was required to go through steps to ensure that the password was appropriately passed to the other system to ensure synchronization. As a result, when the password was forgotten and reset from a Windows perspective, the client was unable to access the Domino environment directly without going through a different process to modify the password.

The new **Notes Shared Login** (**NSL**) effectively removes the password requirements from the Notes ID and shifts the responsibility for authentication to the Windows login. As a result of the architecture, the Windows platform is the only supported environment; NSL will not work with the MAC or Linux desktop systems. Password changes and resets are conducted through the Windows authentication environment and the credentials are stored on the local machine. As a result, environments such as Citrix and the Notes USB (on a stick) environment are not supported.



The implementation of the NSL feature is carried out by removing previous implementations of Client Single Logon and the implementation of a policy for users who will be leveraging the NSL feature. The feature is enabled and managed through a security policy. If the environment already has a security policy enabled, it can be modified to enable the NSL feature. As an administrative team, you may choose to implement the NSL feature outside of the current security policies. If this is the case, create a new security policy. The policy allows the administrative team to enable the NSL feature, allowing the users to participate, and allows for the use of standard or custom dialog boxes to activate and deactivate usage.

The policy document shown in the following screenshot outlines the settings that will enable the feature:



Save & Close
Cancel
Inheritance
Enforcement
Security Settings
Basics
Password Management
Execution Control List
Keys and Certificates
Signed Plug-ins
Portal Server
ID Va
Password Management Basics
Notes Shared Login

**Notes Shared Login** — How to apply this setting:

Enable Notes shared login with operating system: Yes — Don't set value

Allow User Changes? ○ Yes ● No — ☐ Don't set value

**Activation Notification** — How to apply this setting:

How to notify users when enabled: System dialog — ☐ Don't set value

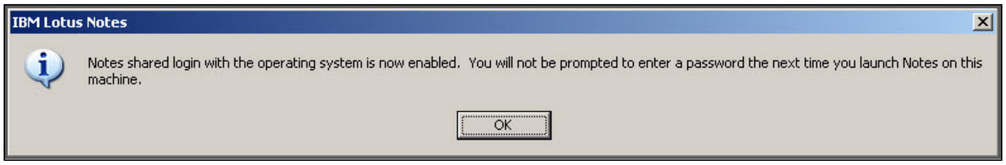
Custom message text:

**Deactivation Notification** — How to apply this setting:

How to notify users when disabled: System dialog — ☐ Don't set value

Custom message text:

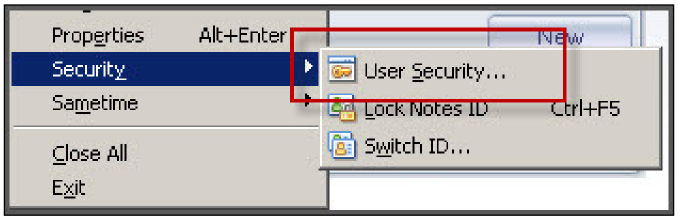
Once the security policy is enforced, the user will participate in the NSL process. The end user will be notified by a standardized dialog box that they are now participating in NSL (see the following screenshot):



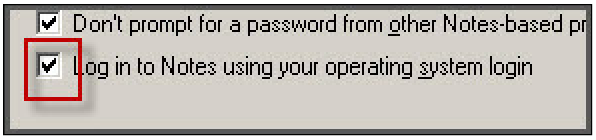
IBM Lotus Notes

Notes shared login with the operating system is now enabled. You will not be prompted to enter a password the next time you launch Notes on this machine.

If the administrative team allows the end user to make changes to whether they participate in the NSL process, they can modify this setting by accessing the **User Security...** dialog box, as shown in the following screenshot:



In the **User Security** dialog box (as shown in the following screenshot), the option for participating in NSL is identified as **Log in to Notes using your operating system login** box. The end user can check or uncheck the box as per their requirements:



☑ Don't prompt for a password from other Notes-based pr

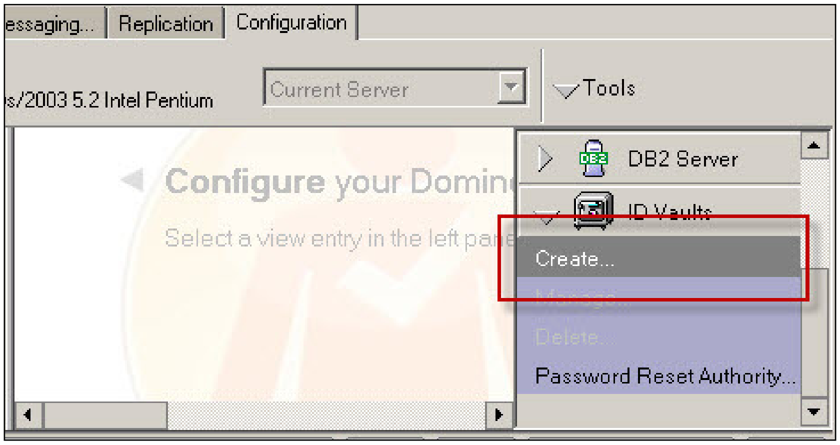
☑ Log in to Notes using your operating system login

The new NSL feature can offer an enhanced user experience but requires some planning and implementation across the environment to ensure proper utilization. It will be important to leverage the appropriate resources (online or through a service organization) to ensure the proper implementation of the feature.

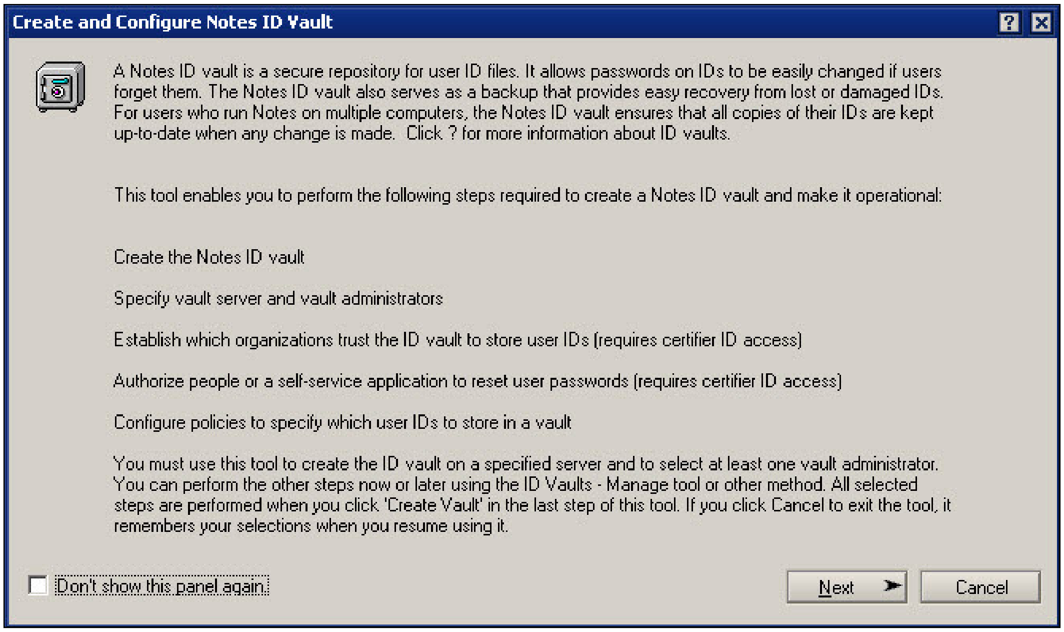
# ID Vault

The Notes ID Vault is a new feature within Domino that allows for the centralized management and maintenance of the ID files within the environment. This includes setting and restoring passwords, management of multiple IDs, removing end user interaction during the rename process, and additional operations.

The ID Vault process requires the creation of an ID vault through the administrators' client. As shown in the following screenshot, clicking on the **Create** button will provide a step-by-step configuration utility. Please ensure that you plan appropriately prior to implementing this feature within your environment:


essaging...
Replication
Configuration
s/2003 5.2 Intel Pentium
Current Server
Tools
Configure your Domin
Select a view entry in the left pa
DB2 Server
ID Vaults
Create...
Manage...
Delete...
Password Reset Authority...

The initial configuration screen will provide an overview of the creation process. As shown in the following screenshot, click on the **Next** button to advance to the next screen:



**Create and Configure Notes ID Vault**

A Notes ID vault is a secure repository for user ID files. It allows passwords on IDs to be easily changed if users forget them. The Notes ID vault also serves as a backup that provides easy recovery from lost or damaged IDs. For users who run Notes on multiple computers, the Notes ID vault ensures that all copies of their IDs are kept up-to-date when any change is made. Click ? for more information about ID vaults.

This tool enables you to perform the following steps required to create a Notes ID vault and make it operational:

Create the Notes ID vault

Specify vault server and vault administrators

Establish which organizations trust the ID vault to store user IDs (requires certifier ID access)

Authorize people or a self-service application to reset user passwords (requires certifier ID access)

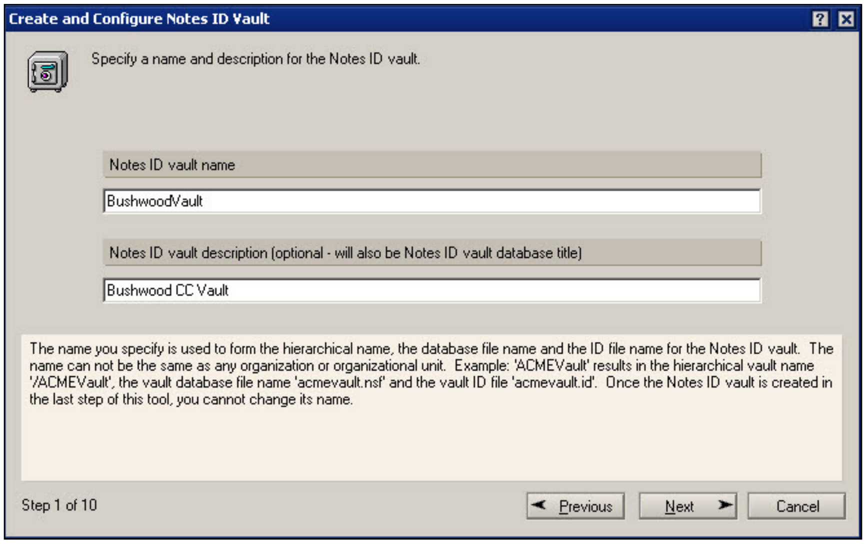
Configure policies to specify which user IDs to store in a vault

You must use this tool to create the ID vault on a specified server and to select at least one vault administrator. You can perform the other steps now or later using the ID Vaults - Manage tool or other method. All selected steps are performed when you click 'Create Vault' in the last step of this tool. If you click Cancel to exit the tool, it remembers your selections when you resume using it.

☐ Don't show this panel again.

?
Next
Cancel

As shown in the following screenshot, the initial step is to create the ID Vault database that will provide the functionality for the environment. Keep in mind, as noted on the screen, that once the process is completed and the vault is created, the vault's name cannot be changed. Click on the **Next** button to continue:



Specify a name and description for the Notes ID vault.

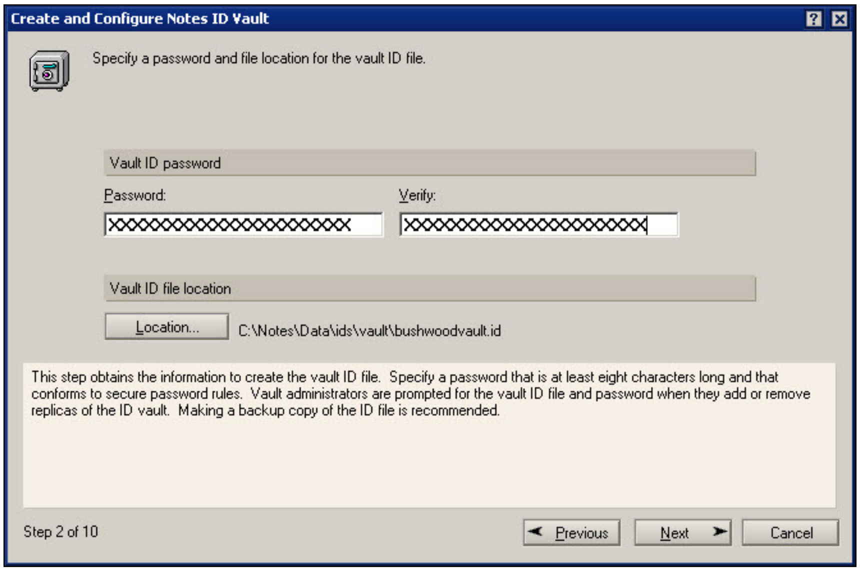
Notes ID vault name: BushwoodVault

Notes ID vault description (optional - will also be Notes ID vault database title): Bushwood CC Vault

The name you specify is used to form the hierarchical name, the database file name and the ID file name for the Notes ID vault. The name can not be the same as any organization or organizational unit. Example: 'ACMEVault' results in the hierarchical vault name '/ACMEVault', the vault database file name 'acmevault.nsf' and the vault ID file 'acmevault.id'. Once the Notes ID vault is created in the last step of this tool, you cannot change its name.

Step 1 of 10

Now, the vault is created with an ID associated for handling the management of the process. Provide a password for the ID Vault process and click on the **Next** button to continue. This is shown in the following screenshot:



Specify a password and file location for the vault ID file.

Vault ID password

Password: XXXXXXXXXXXXXXXXXXXXXX

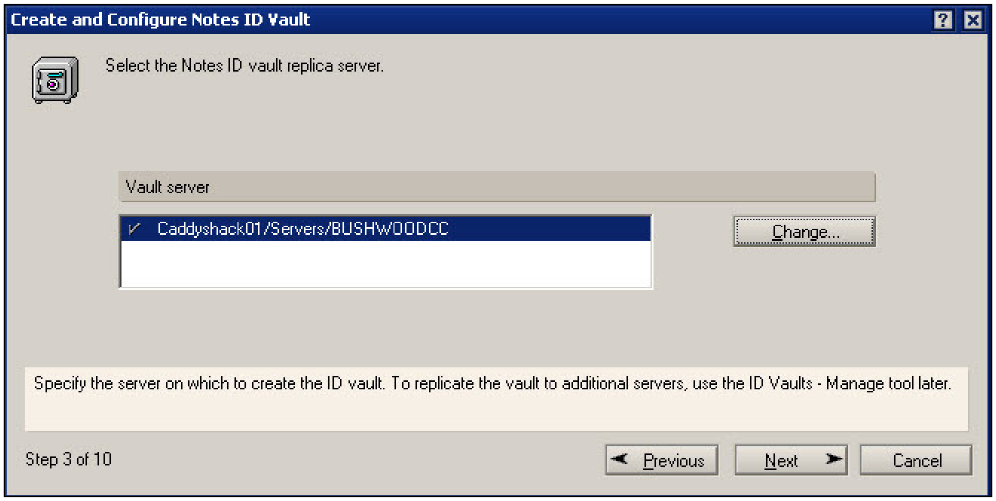
Verify: XXXXXXXXXXXXXXXXXXXXXX

Vault ID file location: C:\Notes\Data\ids\vault\bushwoodvault.id

This step obtains the information to create the vault ID file. Specify a password that is at least eight characters long and that conforms to secure password rules. Vault administrators are prompted for the vault ID file and password when they add or remove replicas of the ID vault. Making a backup copy of the ID file is recommended.

Step 2 of 10

The ID Vault resides on an initial server; this step in the process will outline the server on which the initial database will reside. Additional replicas of the vault can be created at a later point in time, as noted in the following screenshot. Click on the **Next** button to continue:



Select the Notes ID vault replica server.

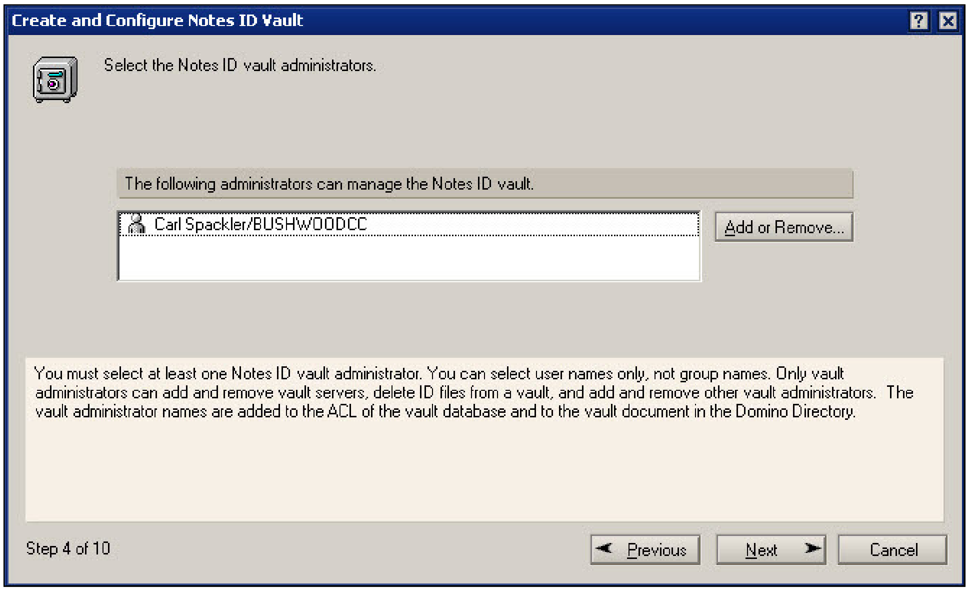
Vault server

✓ Caddyshack01/Servers/BUSHWOODCC

Specify the server on which to create the ID vault. To replicate the vault to additional servers, use the ID Vaults - Manage tool later.

Step 3 of 10

The ID Vault is managed by an administrator or a group of administrators. At this stage in the configuration process, as shown in the following screenshot, identify the administrators for the ID Vault. Click on the **Next** button to continue:



Select the Notes ID vault administrators.

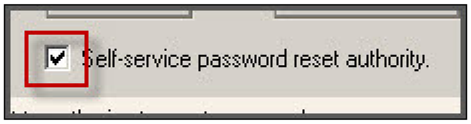
The following administrators can manage the Notes ID vault.

Carl Spackler/BUSHWOODCC

You must select at least one Notes ID vault administrator. You can select user names only, not group names. Only vault administrators can add and remove vault servers, delete ID files from a vault, and add and remove other vault administrators. The vault administrator names are added to the ACL of the vault database and to the vault document in the Domino Directory.

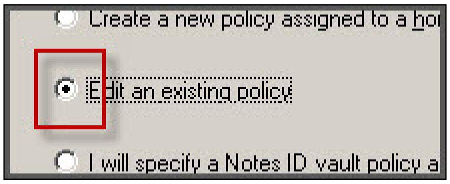
Step 4 of 10

The administrator will need to assign the organizational units that will participate in the ID Vault process on the next screen, and then the authorities will be named for each organization. To simplify the management process, the end users can be given the ability to reset their passwords by selecting the **Self-service password reset authority** option, as shown in the following screenshot. Click the **Next** button on each screen to continue:



☑ Self-service password reset authority.

The ID Vault process needs to be assigned to a security policy document within the environment. The administrative team can create a new policy at this stage or modify an existing policy document to contain the ID Vault information. In this example, an existing document is modified. Click on the **Next** button to continue:

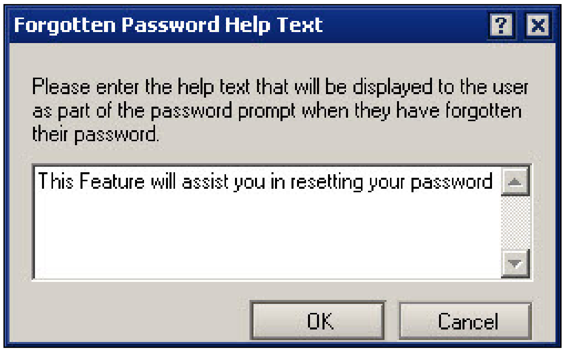


○ Create a new policy assigned to a hoı

● Edit an existing policy

○ I will specify a Notes ID vault policy a

Then, the configuration tool will prompt for a custom dialog Help screen for assisting users with resetting their passwords. Click on the **OK** button to continue:



Forgotten Password Help Text

Please enter the help text that will be displayed to the user as part of the password prompt when they have forgotten their password.

This Feature will assist you in resetting your password

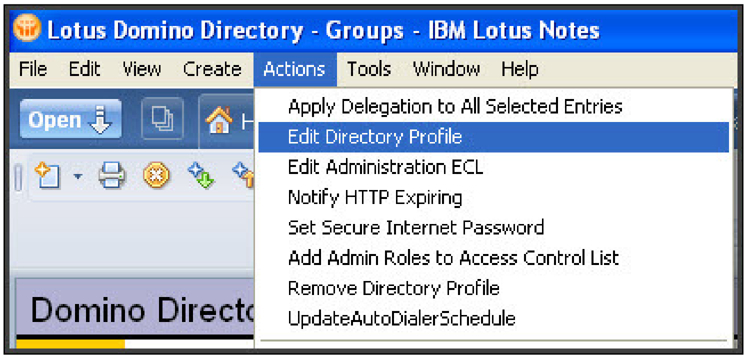
The tool will prompt for the IDs of the organization and organizational units that will participate in the ID Vault process. Once this is completed, the Vault will be created on the server, and the security policy identified will be modified to enable the ID Vault process for users within the environment. Click on the **Close** button to complete the configuration process. Users who have been assigned the policy will have their IDs loaded into the tool and will be presented with the opportunity to reset their own passwords, if required.

The new ID Vault feature can offer an enhanced user experience but requires some planning and implementation across the environment to ensure proper utilization. It will be important to leverage the appropriate resources (online or through a services organization) to ensure the proper implementation of the feature.

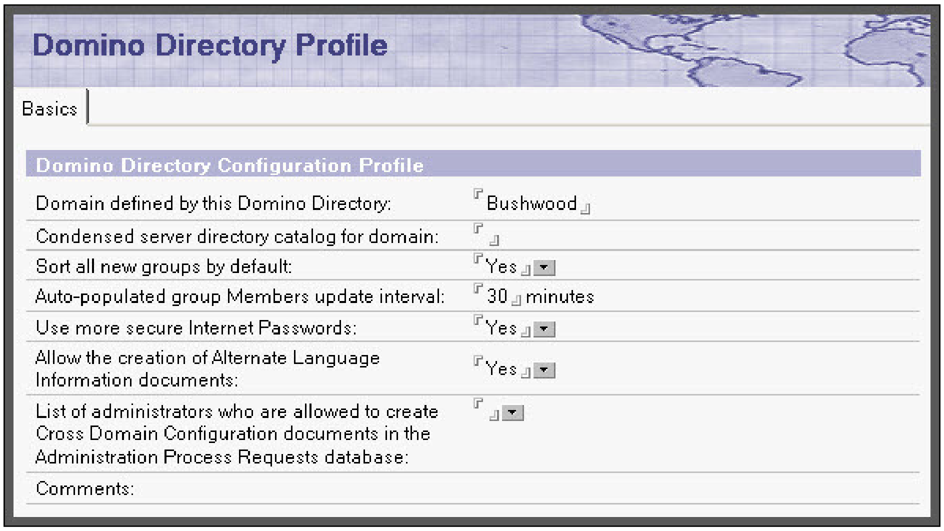
# Auto-populated groups

The management of policies and distribution lists based on the users located on a server has always been an effective management tool. Unfortunately, the process of managing the group membership has been a manual task. Typically, the administration team updates the group membership list during the user registration and deletion process. The new auto-populated group feature allows updating of group membership when the update task is run on the Domino server. The resulting groups allow the administration team to effectively apply policies to the users who use the mail server as their home server.

The process of administering the auto-populated groups feature requires the configuration of the Directory Profile and the individual group properties. The Domino Group Profile can be accessed by opening the **Lotus Domino Directory** in either the Notes or the Administrative client. Go to **Actions** | **Edit Directory Profile** and you will get the following screen:


Lotus Domino Directory - Groups - IBM Lotus Notes
File
Edit
View
Create
Actions
Tools
Window
Help
Open
Apply Delegation to All Selected Entries
Edit Directory Profile
Edit Administration ECL
Notify HTTP Expiring
Set Secure Internet Password
Add Admin Roles to Access Control List
Remove Directory Profile
UpdateAutoDialerSchedule
Domino Directo

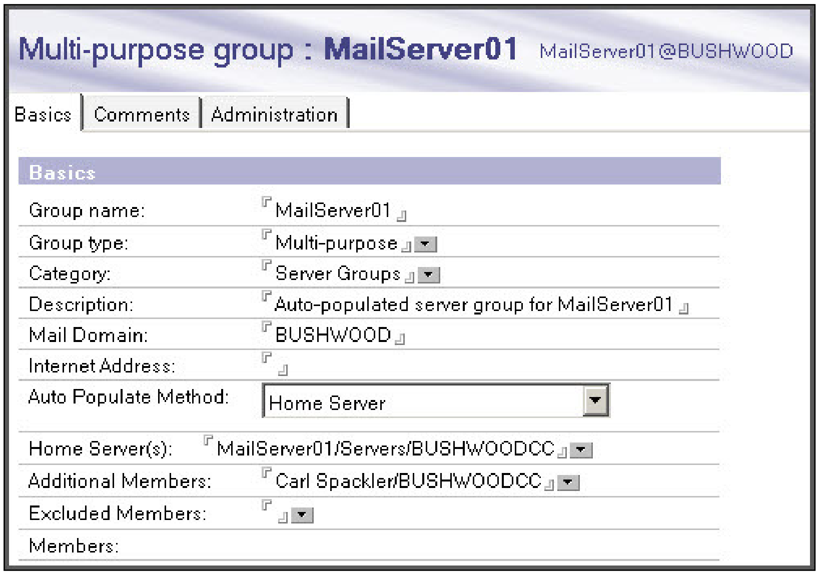
Set the **Auto-populated group Members update interval** option to the appropriate setting for the environment; the default setting is **30 minutes**. After setting the configuration, click **Save & Close** to confirm the new setting:



Domino Directory Configuration Profile

Domain defined by this Domino Directory: Bushwood
Condensed server directory catalog for domain:
Sort all new groups by default: Yes
Auto-populated group Members update interval: 30 minutes
Use more secure Internet Passwords: Yes
Allow the creation of Alternate Language Information documents: Yes
List of administrators who are allowed to create Cross Domain Configuration documents in the Administration Process Requests database:
Comments:

The next step is to configure the groups that will leverage the auto-population feature. In the **Groups** section of the Domino Directory, click on **Add Group** to begin the configuration:



Basics

Group name: MailServer01
Group type: Multi-purpose
Category: Server Groups
Description: Auto-populated server group for MailServer01
Mail Domain: BUSHWOOD
Internet Address:
Auto Populate Method: Home Server
Home Server(s): MailServer01/Servers/BUSHWOODCC
Additional Members: Carl Spackler/BUSHWOODCC
Excluded Members:
Members:

It is important to set the **Auto Populate Method** option to **Home Server** and list the appropriate server in the **Home Server** field. After configuring the group, click on **Save & Close** to create the new group. The new group membership will be populated based on the users listed as utilizing the specified home server, including the member specified in the **Additional Members** field and excluding the members specified in the **Excluded Members** field. The auto-populated list cannot be manually changed; therefore, it is important to manage the inclusion and exclusion of members through the Group document. If the group grows too large, the Auto-populate feature will create subgroups and populate them through the Domino server task.

If the number of users is too large for the `NameLookup` process to complete, the updating of the group membership will not occur. In the event that Domino Domain Monitoring is currently being leveraged in the environment, the following error may be identified if the group membership exceeds the `NameLookup` threshold for the server:

**Search for auto-populated group members failed for group MailServer01: NAMELookups are limited on this server to a size smaller than what would be returned. See your Domino Administrator for more information.**

The administration team for the environment will be required to increase the threshold for `NameLookups` by configuring the `notes.ini` setting—`Namelookup_max_mb=1`. It is recommended to replace the `1` with a larger value starting at `2` and adjusting appropriately for your environment.

Please refer to the Domino 8.5 Administration Help documentation for more current information on this feature.

# GNU Zip

Reducing the impact of the Domino server environment in terms of bandwidth has been greatly enhanced through the support of **GNU Zip** (**Gzip**) technology that was introduced for the Domino Web Server in version 8.5. This support will effectively allow for the leveraging of Gzip technology within the content stored on the Domino Web Server. It is important to understand the configuration requirements for leveraging the Gzip technology when deploying it within Domino Web Server content. The following are examples of configuration requirements, as noted in the Domino 8.5 Administration Help Database. Please refer to this section in the Help database for complete information prior to deployment:

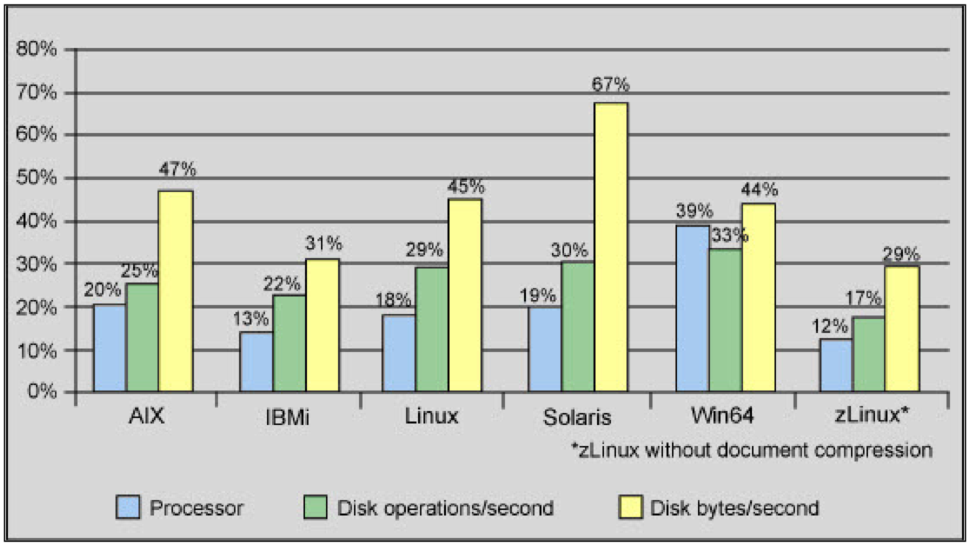
- The `notes.ini` file must not contain the following setting: `HTTPDisablePreCompressedGzipFiles=1`.
- The name of the compressed file is the name of the original file with an additional extension of `.gz`. For example, the gzip counterpart of `c:\notes\data\domino\html\foo.html` is `c:\notes\data\domino\html\foo.html.gz`. (A browser sees this file as `http://<servername>/foo.html`.)
- The original file must be present in the same directory as the `.gz` file. The original file is served if it is newer than the `.gz` file or compression is disabled.

# Performance enhancements

The Domino development team has identified a number of enhancements to server performance by implementing the new features available in Domino 8.5. The overall goal was to reduce load on the servers through the implementation of DAOS, compression, and transaction logging, to lower the CPU and disk I/O requirements. In addition to the new optional features, the development team enhanced the router to increase performance. The router has been optimized to include multiple threads, so mail flows through the mail box in a more efficient manner. As a result of the new design, multiple mail flow processes occur in parallel, and as a result, delays in one process do not affect other processes in mail flow.

The Domino Server Performance team has published a number of articles related to the new enhancements, on the Domino Wiki, and a series of articles on Domino performance have been posted on developerWorks (`http://www.ibm.com/developerworks/lotus/library/domino85-performance/`). The following is a sample from one of the published articles. Please refer to online resources for the most up-to-date information on performance measurements and enhancements. The Domino 8.5 performance article simulated a 4,000-user workload across six different platforms that Domino 8.5.x is supported on and compared the loads against similar Domino 8.0.x-supported environments. There were significant reductions seen across the platforms, particularly in disk operations and bytes per second.

The graph in the following diagram shows server resource reduction with Lotus Domino 8.5, with 4,000 simulated Lotus Notes users:



# iNotes and Quickr integration

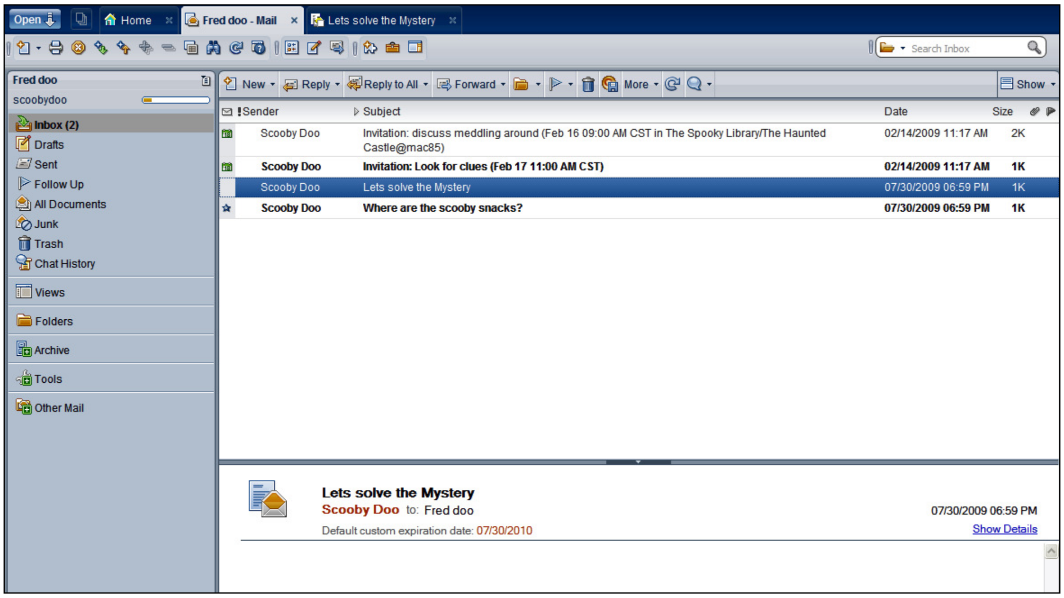
One of the changes in iNotes in Domino 8.5 is the name. For this release, IBM Lotus **Domino Web Access** (**DWA**) has been renamed IBM Lotus iNotes. iNotes Web Access was the original name of the product before it was changed to Domino Web Access in release 6.0.3. The features that have been updated in Domino 8.5 are focused on bringing the same functionality of the Notes client to iNotes, as well as an effort to match the user interfaces between the iNotes Full and Lite modes, so that they offer a single-user experience in iNotes. Quickr integration has also been introduced in this release. In the following sections, we will cover the improvements and updates in iNotes 8.5.

# iNotes and Notes client similarities

The following sections will compare the similarities between the IBM Lotus Notes client and the IBM Lotus iNotes web client.

# User Interface

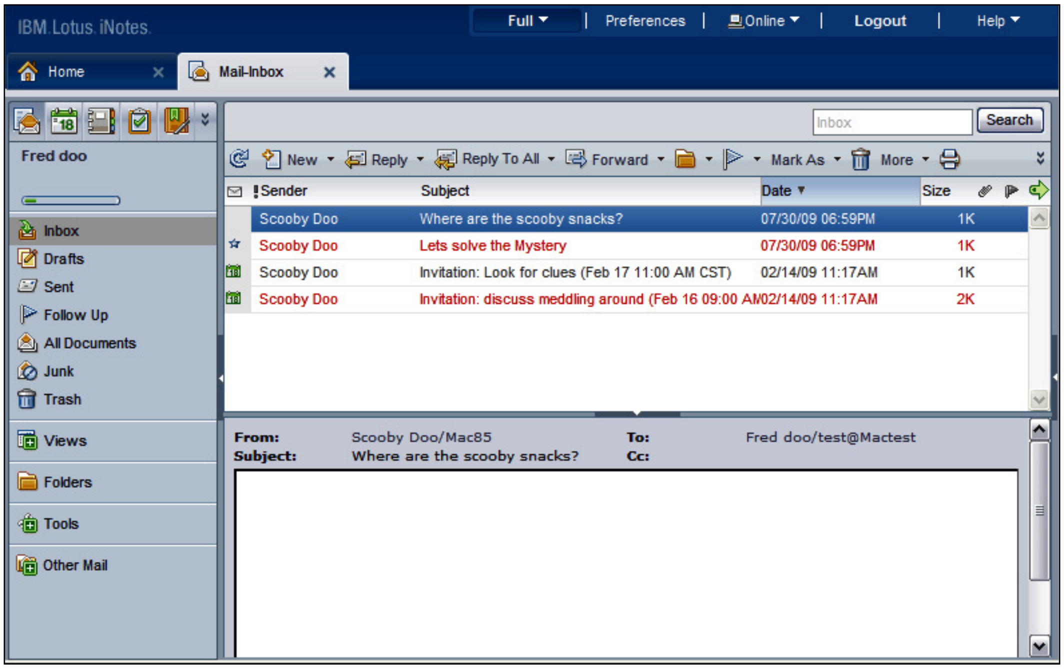
We will first look at some of the more significant changes made to iNotes 8.5 to make it more similar to the Notes client in terms of functionality and user interface (UI). There is now a new, tabbed framework in iNotes 8.5 Full mode. Later, we will look at some of the areas that are not consistent between iNotes 8.5 and Notes 8.5. The first thing you will notice when opening an iNotes 8.5 mail file is the improved UI. Now, the tabs formed when opening new messages or other items look like they do in the Notes client:


Open
Home
Fred doo - Mail
Lets solve the Mystery
Search Inbox
Fred doo
scoobydoo
Inbox (2)
Drafts
Sent
Follow Up
All Documents
Junk
Trash
Chat History
Views
Folders
Archive
Tools
Other Mail
New
Reply
Reply to All
Forward
More
Show

| Sender | Subject | Date | Size |
|---|---|---|---|
| Scooby Doo | Invitation: discuss meddling around (Feb 16 09:00 AM CST in The Spooky Library/The Haunted Castle@mac85) | 02/14/2009 11:17 AM | 2K |
| **Scooby Doo** | **Invitation: Look for clues (Feb 17 11:00 AM CST)** | **02/14/2009 11:17 AM** | **1K** |
| Scooby Doo | Lets solve the Mystery | 07/30/2009 06:59 PM | 1K |
| **Scooby Doo** | **Where are the scooby snacks?** | **07/30/2009 06:59 PM** | **1K** |

**Lets solve the Mystery**
Scooby Doo to: Fred doo
Default custom expiration date: 07/30/2010
07/30/2009 06:59 PM
Show Details

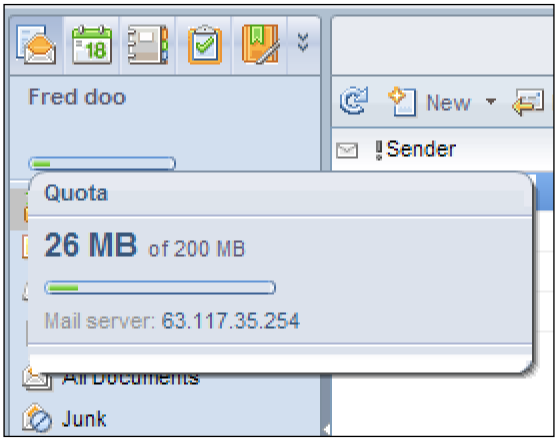
To compare with the IBM Lotus Notes client inbox UI, the IBM Lotus iNotes view of the inbox is shown in the following screenshot:


IBM Lotus iNotes
Full
Preferences
Online
Logout
Help
Home
Mail-Inbox
Fred doo
Inbox
Drafts
Sent
Follow Up
All Documents
Junk
Trash
Views
Folders
Tools
Other Mail
Inbox
Search
New
Reply
Reply To All
Forward
Mark As
More

| !Sender | Subject | Date | Size |
|---|---|---|---|
| Scooby Doo | Where are the scooby snacks? | 07/30/09 06:59PM | 1K |
| Scooby Doo | Lets solve the Mystery | 07/30/09 06:59PM | 1K |
| Scooby Doo | Invitation: Look for clues (Feb 17 11:00 AM CST) | 02/14/09 11:17AM | 1K |
| Scooby Doo | Invitation: discuss meddling around (Feb 16 09:00 AM | 02/14/09 11:17AM | 2K |

**From:** Scooby Doo/Mac85
**Subject:** Where are the scooby snacks?
**To:** Fred doo/test@Mactest
**Cc:**

Another UI change was made with the placement of the quota indicator. Prior releases of DWA had a quota indicator. In iNotes 8.5, the quota indicator has been re-positioned (see the following screenshot) to be more congruent with the Notes 8.5 client quota indicator:

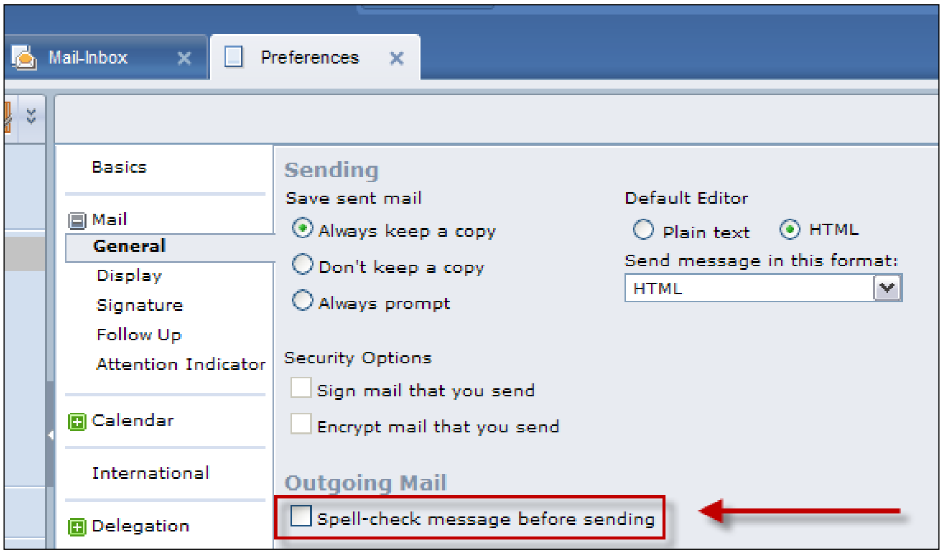

Fred doo
New
!Sender
All Documents
Junk

Quota
26 MB of 200 MB
Mail server: 63.117.35.254

> The Quota indicator only appears for users that have a quota set.

# Preferences

In iNotes 8.5, under **Preferences** | **Mail** | **General**, there is a new section called **Outgoing Mail**. This section contains a new option called **Spell-check message before sending**, as shown in the following screenshot. This was previously only available in the Lotus Notes client:


Mail-Inbox
Preferences
Basics
Mail
General
Display
Signature
Follow Up
Attention Indicator
Calendar
International
Delegation

Sending

Save sent mail
● Always keep a copy
○ Don't keep a copy
○ Always prompt

Default Editor
○ Plain text ● HTML

Send message in this format: HTML

Security Options
☐ Sign mail that you send
☐ Encrypt mail that you send

Outgoing Mail
☐ Spell-check message before sending

# The All Documents and Sent views

In iNotes 8.5, a message opened from the **All Documents** or the **Sent** view opens as a tab at the top, as in the Notes client. This functionality is new in iNotes 8.5. Previously, in DWA 8.0.x and prior releases, mail messages opened as separate windows/dialog boxes. This functionality is helpful when trying to use pop-up blockers in your browser.

## Sidebar

The sidebar was a major enhancement in the Notes 8.5 client. Now, the **Calendar** sidebar exists (**Day At A Glance**) in iNotes 8.5, as in the Notes client. **Calendar** is not alone in the sidebar; you would also see the **Sametime** plugin if Sametime were installed and configured. The sidebar did not exist in DWA 8.0.x.

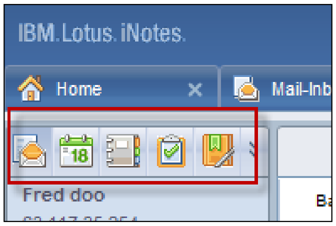
# iNotes and Notes client differences

There are not that many areas that are significantly different between iNotes 8.5 and the Notes 8.5 client. In this section, we will highlight a few areas where there are differences.

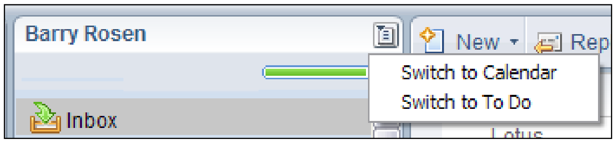
## Switching

When switching between functional areas, you will notice some slight differences. In iNotes, you can click the icon representations with a single click. In the Notes client, you have more options for switching but they all involve at least two clicks.

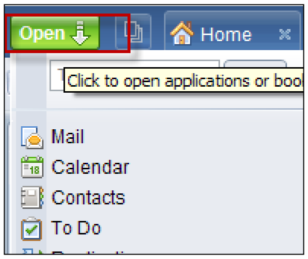
The following screenshot shows you how to switch in the Notes 8.5 client:



The following screenshot shows another option to switch in the Lotus Notes 8.5 client:



In the following screenshot, we will see how to switch in iNotes:

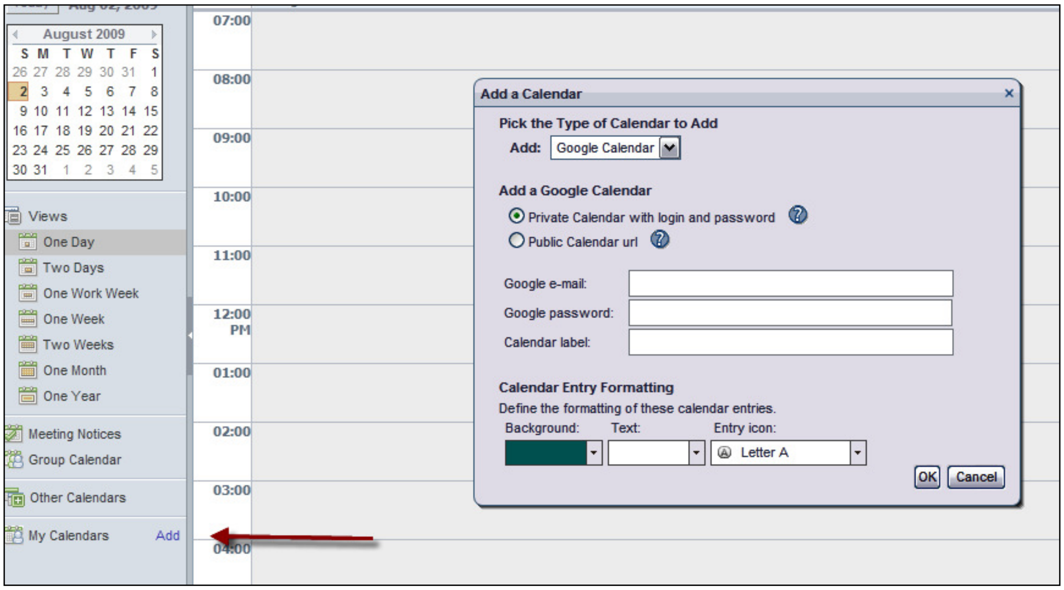

Open
Home
Click to open applications or boo
Mail
Calendar
Contacts
To Do

## Re-ordering tabs

Another functionality that exists in the Notes client, that does not exist in iNotes, is the ability to reorder tabs.

## Calendar overlay

The new ability to overlay Google calendars now exists in iNotes 8.5 as well as in the Notes client. There are some differences in the way this functions as well as in the setup procedures. The terminology is different in each client type. The following screenshot shows the view from iNotes 8.5:


August 2009
S M T W T F S
Views
One Day
Two Days
One Work Week
One Week
Two Weeks
One Month
One Year
Meeting Notices
Group Calendar
Other Calendars
My Calendars
Add
07:00
08:00
09:00
10:00
11:00
12:00 PM
01:00
02:00
03:00
04:00

Add a Calendar

Pick the Type of Calendar to Add

**Add:** Google Calendar

Add a Google Calendar

● Private Calendar with login and password

○ Public Calendar url

Google e-mail:

Google password:

Calendar label:

Calendar Entry Formatting

Define the formatting of these calendar entries.

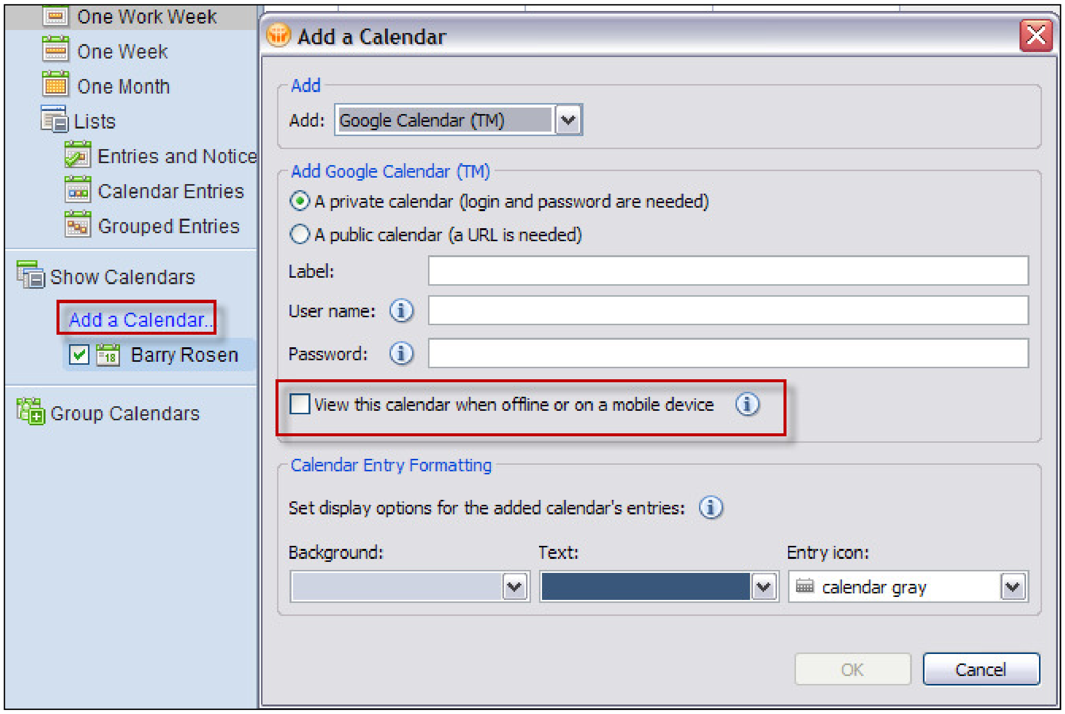
Background:

Text:

Entry icon: Letter A

OK
Cancel

In iNotes, this feature is called **My Calendars** (see the preceding screenshot). In version 8.5 clients, this view is **Show Calendars** (see the following screenshot). In the Notes 8.5 client, there is a **View this calendar when offline or on a mobile device** checkbox. This option does not exist in iNotes. A policy or `notes.ini` parameter is needed to enable the calendar overlay feature in iNotes; neither is needed in the Notes client. The feature is enabled by default:


One Work Week
One Week
One Month
Lists
Entries and Notice
Calendar Entries
Grouped Entries
Show Calendars
Add a Calendar...
Barry Rosen
Group Calendars
Add a Calendar
Add
Add Google Calendar (TM)
Label:
User name:
Password:
Calendar Entry Formatting
Set display options for the added calendar's entries:
Background:
Text:
Entry icon:
OK
Cancel

☑ Barry Rosen

Add: Google Calendar (TM)

● A private calendar (login and password are needed)
○ A public calendar (a URL is needed)

☐ View this calendar when offline or on a mobile device

Entry icon: calendar gray

> To enable **My Calendars**, the Domino administrator can create a mail policy settings document for iNotes users and set the field **Allow Calendar Subscriptions** to **Enable** or set the `iNotes_WA_CalOverlay=1` parameter in the `notes.ini` file on the Domino server. The ini parameter will override the policy setting on servers that it is set on.

There are additional differences in the calendar overlay functionality. Once your calendar has been added, if you attempt to modify the URL for the calendar overlay in iNotes, there is no way to edit the URL. It appears in the **Modify Calendar** dialog box, but the URL is not editable. The only items you can change are the colors, icon and a checkbox for taking the calendar offline. In iNotes 8.5, you can take your Google and other calendar types offline. You cannot do so with the Notes 8.5 client.

Finally, the following is a list of calendars that can be overlaid in Notes 8.5 clients but not in iNotes 8.5:

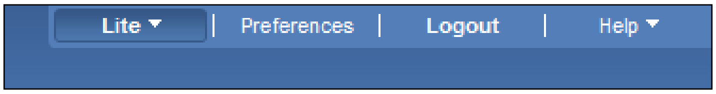
- Other Notes user calendars
- Notes TeamRoom calendars
- Other Notes application calendars
- iCalendar feeds (`.ics`)
- Activities (Lotus Connections) calendars

# iNotes modes—features that are the same

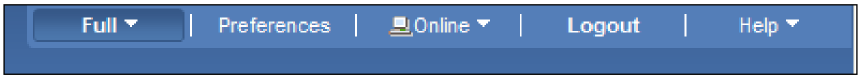
Let's examine the areas of iNotes Full and Lite modes that are the same.

## Preferences

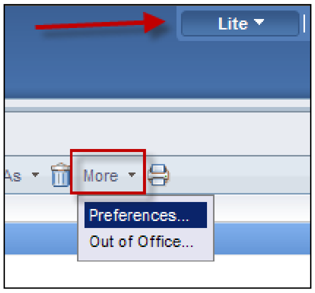
In previous releases of DWA, the **Preferences** menu option was only available in the Full mode. However, in iNotes Web Access, the **Preferences** menu option is available in both Full and Lite modes. The following screenshot shows the iNotes **Lite** mode:



The following screenshot shows the iNotes **Full** mode:

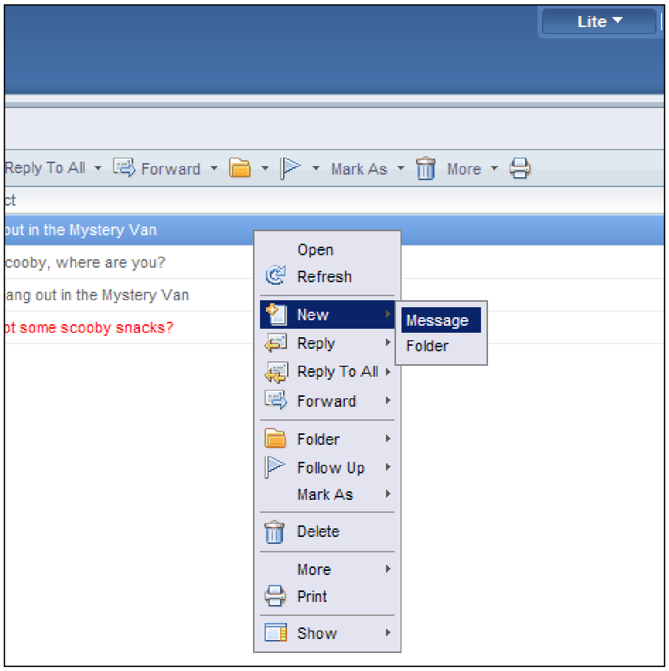


Previously, the **More** option in the action bar was only available in the Full mode. However, from iNotes 8.5 Lite, the **More** option in the action bar is available in both Full and Lite modes. This allows the iNotes Lite mode users to set up or make changes to the **Out of Office...** feature as well as change other preferences under the **Preferences** option, as shown in the following screenshot:


Lite
As
More
Preferences...
Out of Office...

## The right-click menu

The right-click menu existed in DWA 8.0.1 Full mode only. In DWA 8.0.1 Lite mode, you can see the standard browser menu choices. The right-click menu in the Inbox view has now been added to Lite mode. These menu choices now exist in both iNotes 8.5 Full and Lite modes:


Lite
Reply To All
Forward
Mark As
More
ct
out in the Mystery Van
cooby, where are you?
ang out in the Mystery Van
ot some scooby snacks?
Open
Refresh
New
Message
Folder
Reply
Reply To All
Forward
Folder
Follow Up
Mark As
Delete
More
Print
Show

In DWA 8.0.1 Full mode, you were able to drag-and-drop a document into a folder; this functionality did not exist in Lite mode. In iNotes 8.5, this functionality works in both Full and Lite modes.

### Domino Web Access console

One interesting and helpful feature that was introduced in 8.0.1 DWA Lite mode was the Domino Web Access console. This allows Lotus technical support to collect additional log and error information. Starting with iNotes 8.5, the Domino Web Access console is available in Full and Lite modes. To enable the console in iNotes 8.5, hold the *Ctrl* key while clicking the *IBM Lotus Notes* logo in the upper-left corner of the browser.

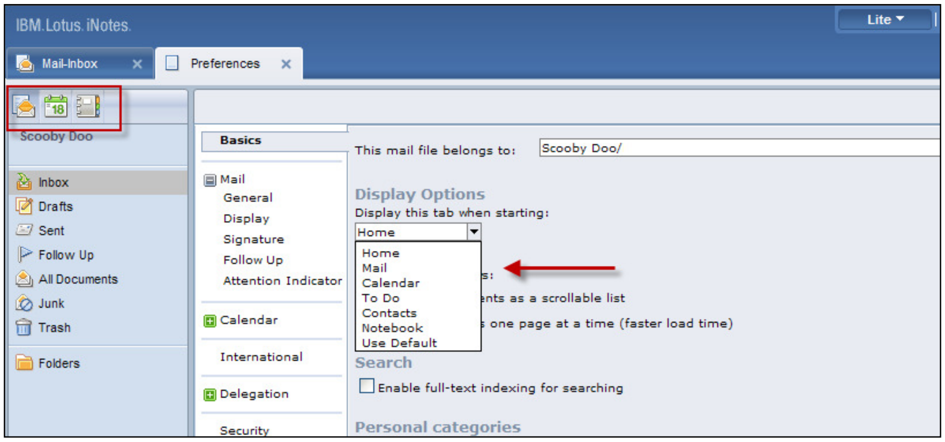
### Calendar

Another aspect of iNotes 8.5 Lite mode, that places it more on par with Full mode, is the addition of the calendar functionality. In DWA 8.0.1, you could not access your calendar in Lite mode. You had to first switch to the Full mode to open the calendar. Now, you no longer have to switch to the Full mode to view your calendar; you can do this in the Lite mode, too.

## iNotes modes—features that are different

Now, we will cover the features that are different between iNotes 8.5 Full and Lite modes.

In the **Lite** mode, the only switcher icon choices are **Mail**, **Calendar**, and **Contacts**, as shown in the following screenshot. You do not see choices for switching to **Home**, **To Do**, or **Notebook**, as these functional areas are not available in the **Lite** mode, although the **Preferences** tab may lead you to believe otherwise, due to the **Display Options** drop-down box:


IBM Lotus iNotes
Lite
Mail-Inbox
Preferences
Scooby Doo
Inbox
Drafts
Sent
Follow Up
All Documents
Junk
Trash
Folders
Basics
Mail
General
Display
Signature
Follow Up
Attention Indicator
Calendar
International
Delegation
Security
Display Options
Home
Mail
Calendar
To Do
Contacts
Notebook
Use Default
Search
Personal categories

This mail file belongs to: Scooby Doo/

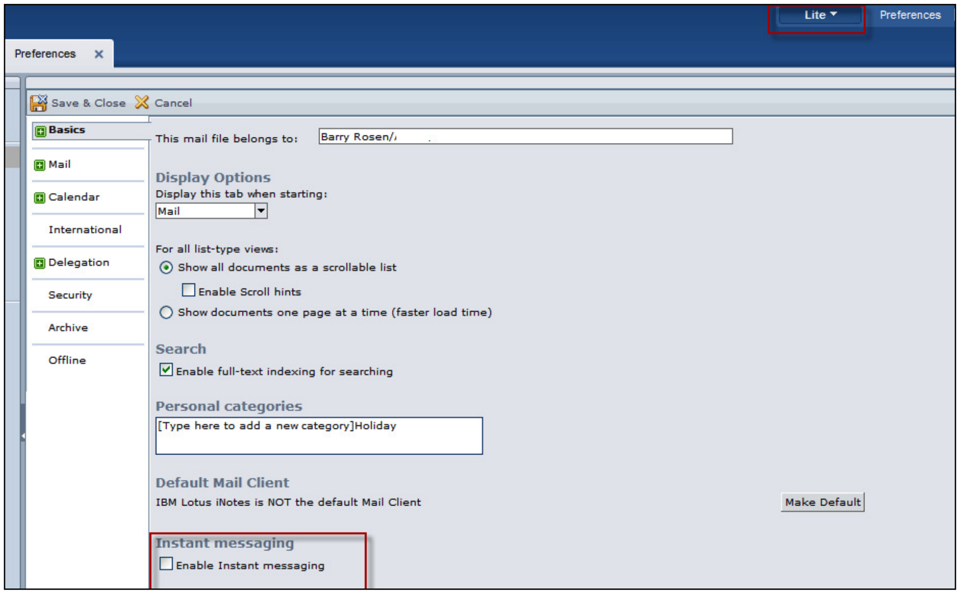
Display this tab when starting: Home

…nts as a scrollable list

… one page at a time (faster load time)

☐ Enable full-text indexing for searching

Furthermore, under **Preferences** | **Basics**, notice the option **Enable Instant messaging** (highlighted in the following screenshot). This Sametime integration feature is not an option in Lite mode, even though it appears as a selectable choice in the Lite mode preferences:


Lite
Preferences
Preferences
Save & Close
Cancel
Basics
Mail
Calendar
International
Delegation
Security
Archive
Offline
Display Options
Search
Personal categories
Default Mail Client
Make Default
Instant messaging

This mail file belongs to: Barry Rosen/

Display this tab when starting: Mail

For all list-type views:

● Show all documents as a scrollable list

☐ Enable Scroll hints

○ Show documents one page at a time (faster load time)

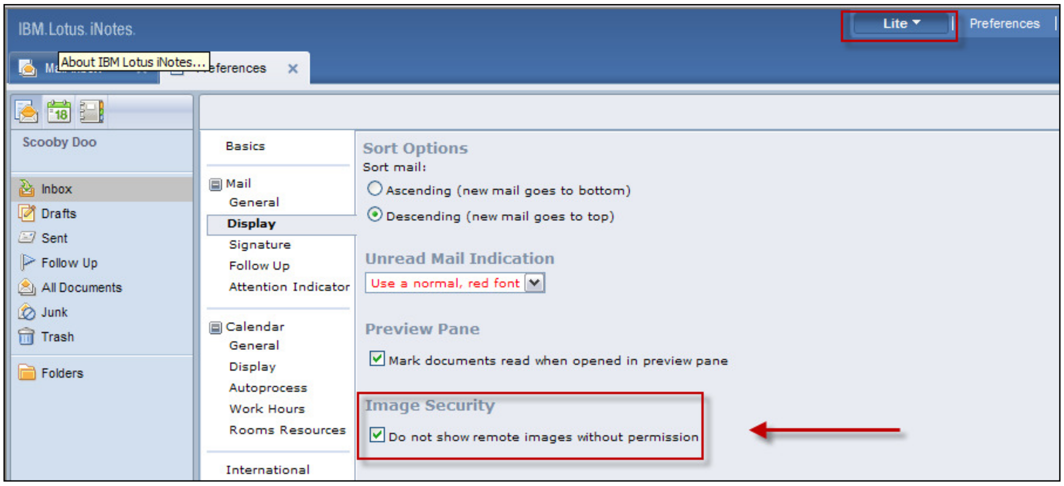
☑ Enable full-text indexing for searching

[Type here to add a new category]Holiday

IBM Lotus iNotes is NOT the default Mail Client

☐ Enable Instant messaging

In the **Preferences** tab, go to **Mail | Display** and look for the **Do not show remote images without permission** option (highlighted in the following screenshot). This image-security feature, which prevents an initial loading of images in mail messages until you click on the **Show Images** button, exists only in iNotes Full mode, even though it also appears in **Preferences** while you are in the Lite mode:


IBM Lotus iNotes
Lite
Preferences
About IBM Lotus iNotes...
Preferences
Scooby Doo
Inbox
Drafts
Sent
Follow Up
All Documents
Junk
Trash
Folders
Basics
Mail
General
Display
Signature
Follow Up
Attention Indicator
Calendar
General
Display
Autoprocess
Work Hours
Rooms Resources
International

Sort Options
Sort mail:
○ Ascending (new mail goes to bottom)
● Descending (new mail goes to top)

Unread Mail Indication
Use a normal, red font

Preview Pane
☑ Mark documents read when opened in preview pane

Image Security
☑ Do not show remote images without permission

In the Lite mode, regardless of how the **Do not show remote images without permission** option is set, all images will automatically be displayed. As you can see, although all of the preferences from the Full mode are displayed in the Lite mode, they are not all functional.

As we have seen with **Preferences**, **Mail**, and **Calendar**, navigators in iNotes Full and Lite modes reflect some of the features available in one mode but not the other. The following items are in the **Calendar** view navigator in Full mode and are missing from Lite mode:

- The **Group Calendar** and **Meeting Notices** views
- The **Other Calendars** option
- The **My Calendars** option

This means that you cannot view delegated calendars or overlay Google calendars while you are in the Lite mode.

# iNotes 8.5.1 new features

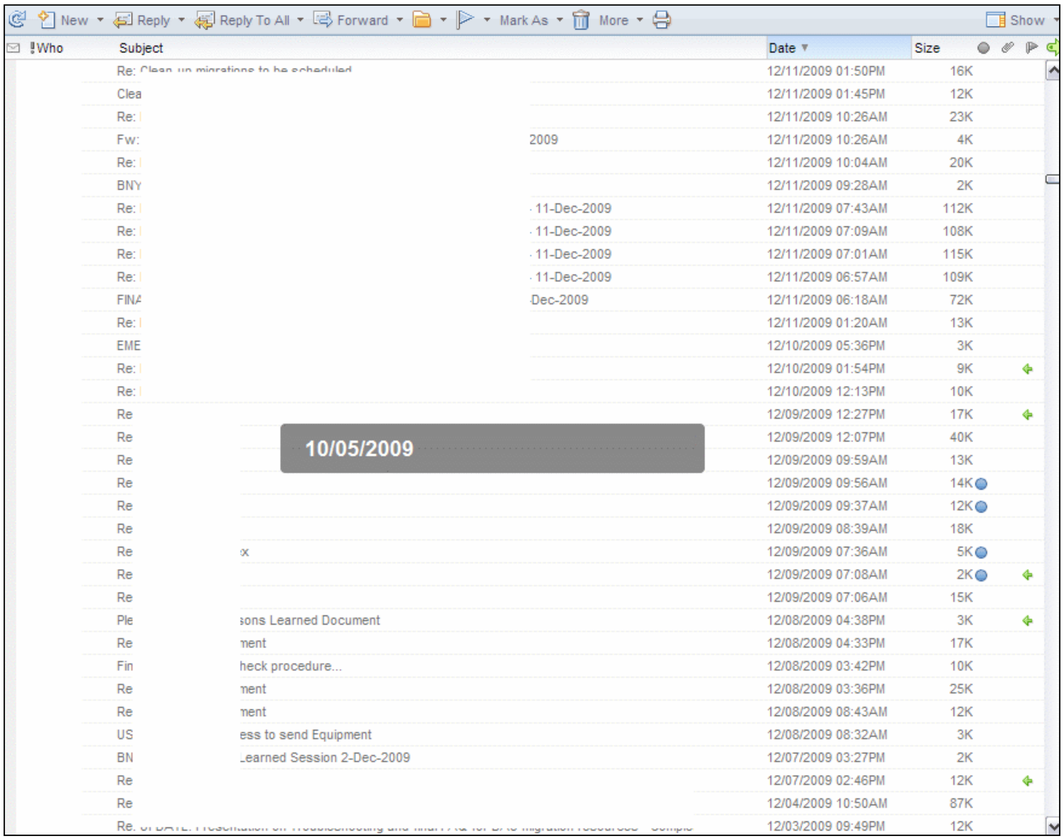
iNotes 8.5.1 has introduced several new features in the following areas:

- New user interface enhancements
- ID Vault synchronization for iNotes
- iNotes INI settings
- Other features

## New user interface enhancements

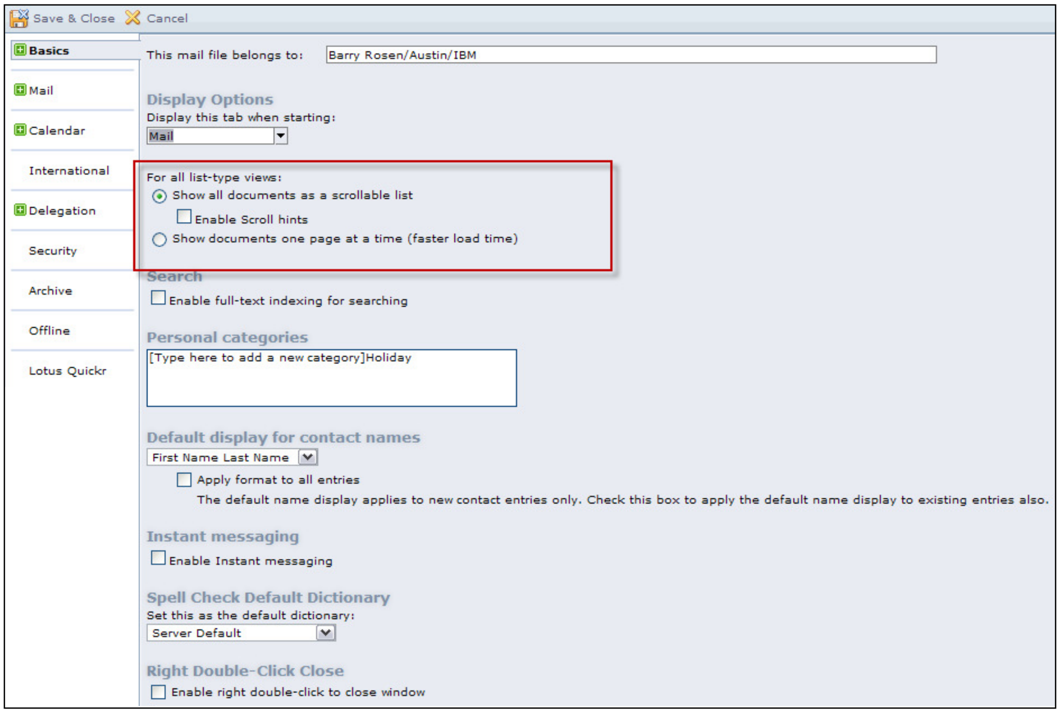
Starting with IBM Lotus iNotes 8.5.2, the inbox will automatically refresh. There are now also unread counts for folders as well as the inbox.

Another enhancement is the addition of scroll hints; now, when scrolling through a large inbox, a hint box will appear to show you where you are in the view. The following screenshot demonstrates this new feature:



| Who | Subject | Date ▼ | Size | ● | ↩ |
|---|---|---|---|---|---|
| | Re: Clean up migrations to be scheduled | 12/11/2009 01:50PM | 16K | | |
| | Clea | 12/11/2009 01:45PM | 12K | | |
| | Re: | 12/11/2009 10:26AM | 23K | | |
| | Fw: 2009 | 12/11/2009 10:26AM | 4K | | |
| | Re: | 12/11/2009 10:04AM | 20K | | |
| | BNY | 12/11/2009 09:28AM | 2K | | |
| | Re: 11-Dec-2009 | 12/11/2009 07:43AM | 112K | | |
| | Re: 11-Dec-2009 | 12/11/2009 07:09AM | 108K | | |
| | Re: 11-Dec-2009 | 12/11/2009 07:01AM | 115K | | |
| | Re: 11-Dec-2009 | 12/11/2009 06:57AM | 109K | | |
| | FINA Dec-2009 | 12/11/2009 06:18AM | 72K | | |
| | Re: | 12/11/2009 01:20AM | 13K | | |
| | EME | 12/10/2009 05:36PM | 3K | | |
| | Re: | 12/10/2009 01:54PM | 9K | | ↩ |
| | Re: | 12/10/2009 12:13PM | 10K | | |
| | Re | 12/09/2009 12:27PM | 17K | | ↩ |
| | Re | 12/09/2009 12:07PM | 40K | | |
| | Re | 12/09/2009 09:59AM | 13K | | |
| | Re | 12/09/2009 09:56AM | 14K | ● | |
| | Re | 12/09/2009 09:37AM | 12K | ● | |
| | Re | 12/09/2009 08:39AM | 18K | | |
| | Re x | 12/09/2009 07:36AM | 5K | ● | |
| | Re | 12/09/2009 07:08AM | 2K | ● | ↩ |
| | Re | 12/09/2009 07:06AM | 15K | | |
| | Ple sons Learned Document | 12/08/2009 04:38PM | 3K | | ↩ |
| | Re nent | 12/08/2009 04:33PM | 17K | | |
| | Fin heck procedure... | 12/08/2009 03:42PM | 10K | | |
| | Re nent | 12/08/2009 03:36PM | 25K | | |
| | Re nent | 12/08/2009 08:43AM | 12K | | |
| | US ess to send Equipment | 12/08/2009 08:32AM | 3K | | |
| | BN Learned Session 2-Dec-2009 | 12/07/2009 03:27PM | 2K | | |
| | Re | 12/07/2009 02:46PM | 12K | | ↩ |
| | Re | 12/04/2009 10:50AM | 87K | | |
| | Re. | 12/03/2009 09:49PM | 12K | | |

This feature can be enabled through a new preference setting, as shown in the following screenshot:


Save & Close
Cancel
Basics
Mail
Calendar
International
Delegation
Security
Archive
Offline
Lotus Quickr

This mail file belongs to: Barry Rosen/Austin/IBM

**Display Options**

Display this tab when starting: Mail

For all list-type views:

- ● Show all documents as a scrollable list
  - ☐ Enable Scroll hints
- ○ Show documents one page at a time (faster load time)

**Search**

☐ Enable full-text indexing for searching

**Personal categories**

[Type here to add a new category]Holiday

**Default display for contact names**

First Name Last Name

☐ Apply format to all entries

The default name display applies to new contact entries only. Check this box to apply the default name display to existing entries also.

**Instant messaging**

☐ Enable Instant messaging

**Spell Check Default Dictionary**

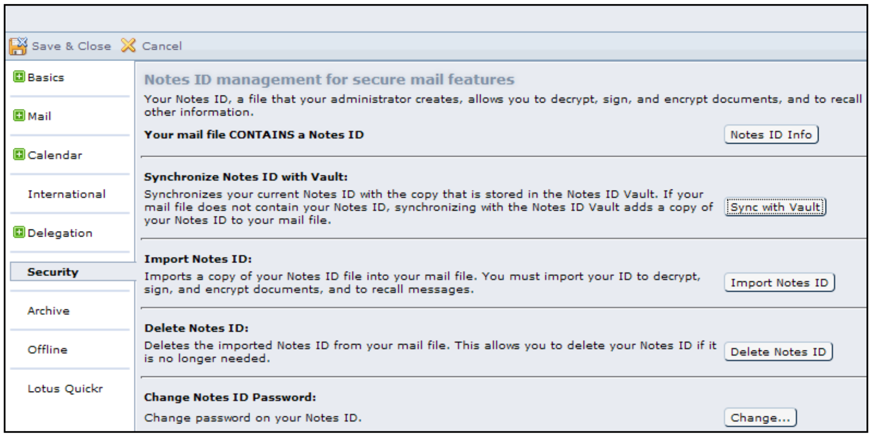
Set this as the default dictionary: Server Default

**Right Double-Click Close**

☐ Enable right double-click to close window

# ID Vault synchronization with iNotes

Synching your ID with the ID vault can now be accomplished via an iNotes preference setting, as shown in the following screenshot:


Save & Close
Cancel
Basics
Mail
Calendar
International
Delegation
Security
Archive
Offline
Lotus Quickr
Notes ID Info
Sync with Vault
Import Notes ID
Delete Notes ID
Change...

**Notes ID management for secure mail features**

Your Notes ID, a file that your administrator creates, allows you to decrypt, sign, and encrypt documents, and to recall other information.

**Your mail file CONTAINS a Notes ID**

**Synchronize Notes ID with Vault:**

Synchronizes your current Notes ID with the copy that is stored in the Notes ID Vault. If your mail file does not contain your Notes ID, synchronizing with the Notes ID Vault adds a copy of your Notes ID to your mail file.

**Import Notes ID:**

Imports a copy of your Notes ID file into your mail file. You must import your ID to decrypt, sign, and encrypt documents, and to recall messages.

**Delete Notes ID:**

Deletes the imported Notes ID from your mail file. This allows you to delete your Notes ID if it is no longer needed.

**Change Notes ID Password:**

Change password on your Notes ID.

# iNotes INI settings

In IBM Lotus Notes 8.5.1, there are several new INI settings that, when added to the server hosting the iNotes mail files, affect the behavior of iNotes users. The settings and the behaviors that are affected are as follows:

- `iNOTES_WA_DISABLE_WEBSTYLE_SEARCH=1`: This setting will revert Notes to the old behavior in the previous 8.x version, for the results of the FT search via HTTP to be in Notes-style syntax.
- `iNOTES_WA_EnableOpenLinkInEditor=0`: This setting will disable links so that users cannot identify or open links when editing or replying (this setting is applicable for IE only and is set to `1` by default).
- `iNOTES_WA_ChromeBrowserBlock=0`: This setting will unblock the Google Chrome browser.
- `NOTES_WA_AllowPassThruHtml=1`: This setting will allow pass-through of HTML in Domino 8.5.1. Pass-through of HTML that is enclosed in square brackets is disabled, by default.
- `iNOTES_WA_PrefetchDocuments=<value>`: This setting will have messages open faster because the contents have already been fetched. It can be set to any one of the following values:
    - `1`: Fetches all unread documents shown in the mail view
    - `2`: Fetches all documents shown in the mail view

Enabling the `iNOTES_WA_PrefetchDocuments` setting might have bandwidth or server CPU consumption trade-offs.

# Other features

In iNotes 8.5.1, there is now a method to customize color gradients. All gradient fills and colors are now defined in the `dwa.properties` file. To do this, first edit the `dwa.properties` file in `forms85.nsf`. To change colors, edit this file in Domino Designer and provide new color values.

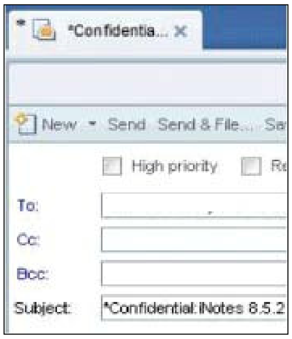
# iNotes 8.5.2—new features

iNotes 8.5.2 has introduced several new features in the following areas:

- Mail
- Calendar
- Other features

## Mail

In new messages, you can spell-check the body of the message. Misspelled words will appear with a squiggly red line, as they do in the Lotus Notes client. If you open a new tab, an asterisk will indicate unsaved changes. When the changes are saved, the asterisk will be removed. In Lite mode, you can now sign and send encrypted messages. Another feature that brings parity to the Lotus Notes client is the ability to mark the subject as **Confidential**, as shown in the following screenshot:

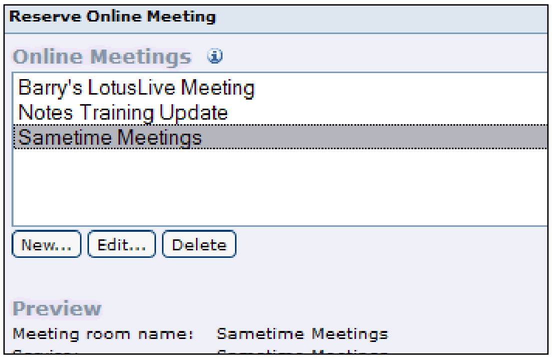


Subject: *Confidential: iNotes 8.5.2

There have been some changes in the year format for users. Now, you can choose between two-digit and four-digit year formats by using the **International Date Settings** preference. To set this for all users on a server, use the INI parameter `iNotes_WA_Prefer2DigitYearInView` to disable that preference and enforce the two-digit date format.

# Calendar

In the Calendar, there is now a new **Sametime 8.5 Meeting Room** type, as shown in the following screenshot:



Barry's LotusLive Meeting
Notes Training Update
Sametime Meetings

Meeting room name: Sametime Meetings

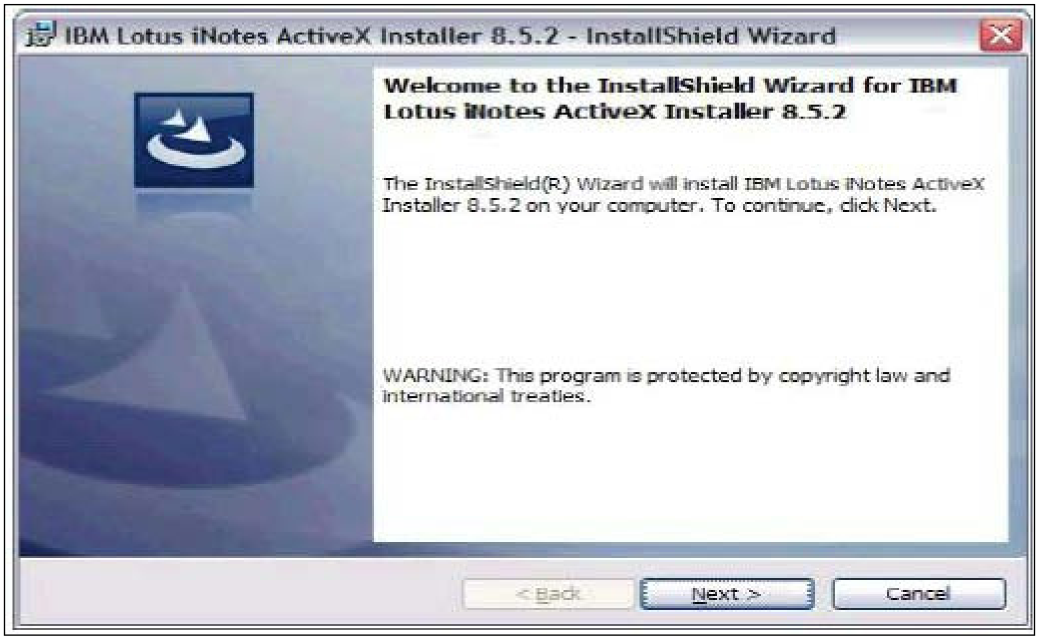
Users can now add secondary calendars in addition to the primary calendars. The secondary calendars are displayed next to the day of the date header in the calendar.

# Other features

The following supported browsers were added in iNotes 8.5.2:

- Firefox 3.6
- Internet Explorer 8
- Safari 4.x on Macintosh OS

From an administration perspective, one of the more helpful changes introduced in IBM Lotus Notes 8.5.2 is the standalone install package for web controls. This allows administrators to push the controls to end users' Windows-based workstations. This is useful when web browsers blocking pop-ups and workstations are locked down to prevent users from installing software. The following screenshot shows the ActiveX installer for 8.5.2:


IBM Lotus iNotes ActiveX Installer 8.5.2 - InstallShield Wizard
< Back
Next >
Cancel

**Welcome to the InstallShield Wizard for IBM Lotus iNotes ActiveX Installer 8.5.2**

The InstallShield(R) Wizard will install IBM Lotus iNotes ActiveX Installer 8.5.2 on your computer. To continue, click Next.

WARNING: This program is protected by copyright law and international treaties.

Finally, in iNotes 8.5.2, there is the introduction of new supported devices. These are the Apple iPad and the Android OS-based devices.

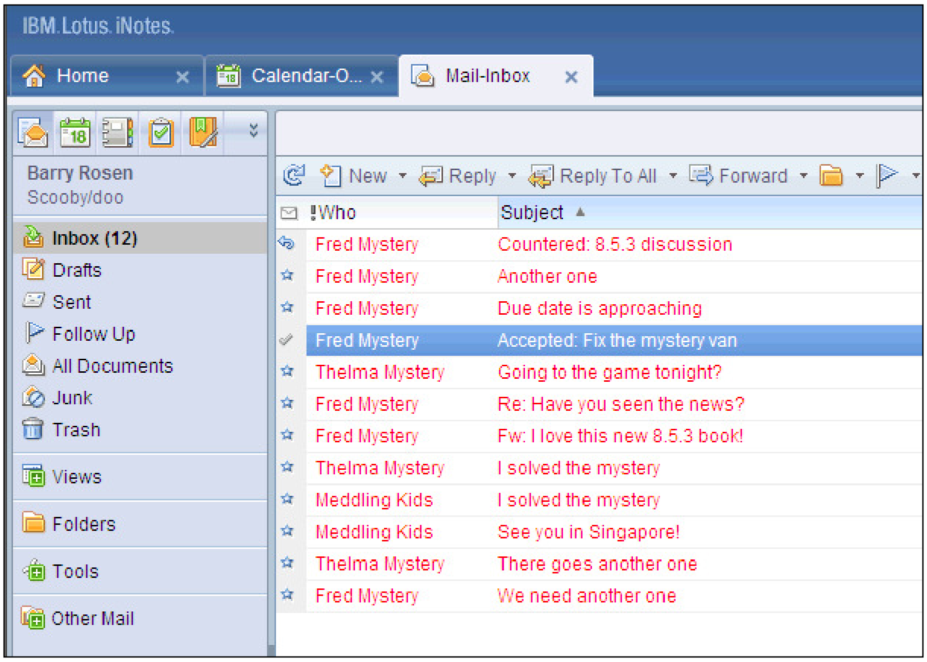
# iNotes 8.5.3—new features

iNotes 8.5.3 has introduced several new features in the following areas:

- Mail
- Calendar
- Contacts
- Supported Browsers

# Mail

To further the parity between the thin client and the full Lotus Notes 8.5.3 client, you can now sort e-mails by subject as the "RE:" and "FW:" are stripped out. This follows the behavior in the Lotus Notes 8.5.3 client:


IBM Lotus iNotes
Home
Calendar-O...
Mail-Inbox
Barry Rosen
Scooby/doo
Inbox (12)
Drafts
Sent
Follow Up
All Documents
Junk
Trash
Views
Folders
Tools
Other Mail
New
Reply
Reply To All
Forward

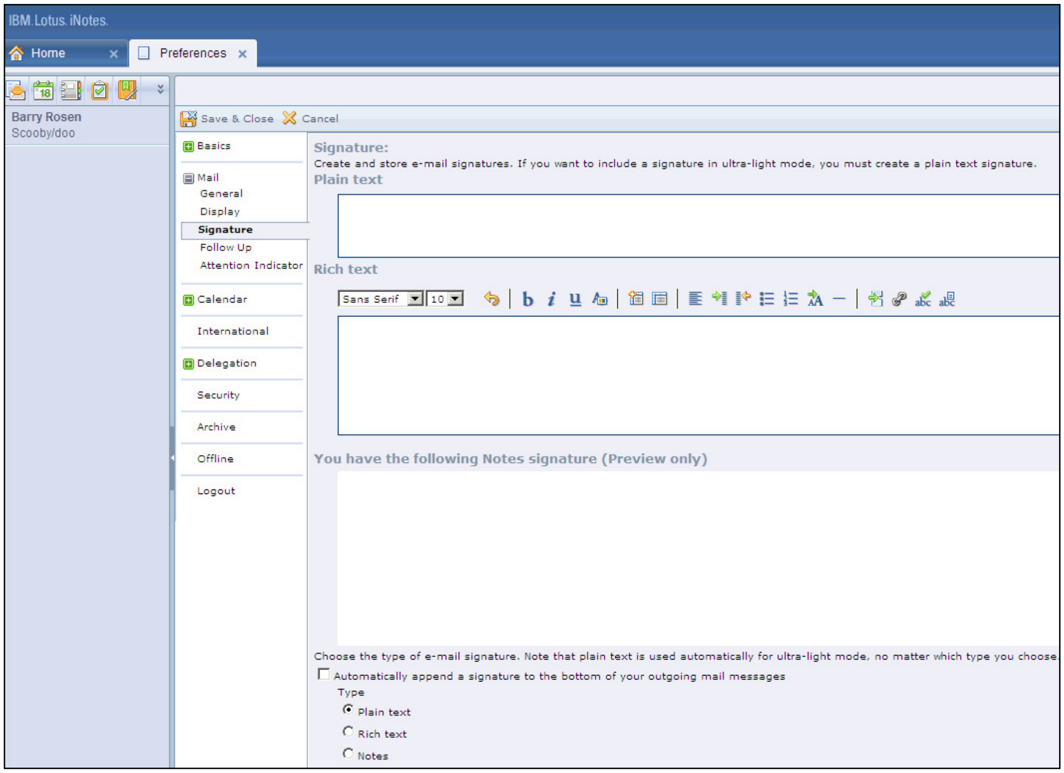
| !Who | Subject ▲ |
|---|---|
| Fred Mystery | Countered: 8.5.3 discussion |
| Fred Mystery | Another one |
| Fred Mystery | Due date is approaching |
| Fred Mystery | Accepted: Fix the mystery van |
| Thelma Mystery | Going to the game tonight? |
| Fred Mystery | Re: Have you seen the news? |
| Fred Mystery | Fw: I love this new 8.5.3 book! |
| Thelma Mystery | I solved the mystery |
| Meddling Kids | I solved the mystery |
| Meddling Kids | See you in Singapore! |
| Thelma Mystery | There goes another one |
| Fred Mystery | We need another one |

Furthermore, you can now choose from multiple e-mail signatures.

# Calendar

Many improvements have been made in the calendar parity of the Lotus Notes full client and IBM Lotus Notes 8.5.3. Counter-proposed meetings now show as ghosted on your calendar. This allows you to see the counter-proposed meeting on your calendar before you accept it.

Auto-processing of calendar entries has improved in IBM Lotus iNotes 8.5.3, as shown in the following screenshot:


IBM Lotus iNotes
Home
Preferences
Barry Rosen
Scooby/doo
Save & Close
Cancel
Basics
Mail
General
Display
Signature
Follow Up
Attention Indicator
Calendar
International
Delegation
Security
Archive
Offline
Logout
Sans Serif
10

Signature:
Create and store e-mail signatures. If you want to include a signature in ultra-light mode, you must create a plain text signature.
Plain text

Rich text

You have the following Notes signature (Preview only)

Choose the type of e-mail signature. Note that plain text is used automatically for ultra-light mode, no matter which type you choose.
☐ Automatically append a signature to the bottom of your outgoing mail messages
Type
● Plain text
○ Rich text
○ Notes

IBM Lotus iNotes 8.5.3 users can use these new calendar display preferences to improve the automatic handling of meeting updates. You now have the following options: **When I add or remove meeting invitees, update the other participants** and **Automatically process meeting updates and apply changes to meetings**.

## Contacts

Contacts in the mail file, seen in the **Contacts** view, have been improved to enhance the web-based experience. Users can now perform actions from the **Contacts** view in the mail file, just as you would in your local contacts file. This feature requires the 8.5.3 template. You can now also import contacts from non-English CSV files.

## Supported browsers

New to IBM Lotus iNotes 8.5.3 is support for Google Chrome 12.

# Quickr integration

Lotus Quickr is a team collaboration software that allows you to collaborate, share content, and work online with your teams. Lotus Quickr now integrates with IBM Lotus Notes by allowing established preferred Lotus Quickr places within IBM Lotus Notes preferences. You can store received attachments within a Lotus Quickr place. While composing outgoing messages, you can now browse and insert links to Lotus Quickr files, folders, or places. IBM Lotus Notes automatically stores such attachments in a prespecified Lotus Quickr place and sends links to those files, when sending any outgoing attachments. IBM Lotus Notes can also be set to prompt the user about whether it should move such attachments to a Lotus Quickr store and send links or whether to send the attachments as they are, when sending any outgoing attachments.

You must enable session-based authentication using either a single server or multiple servers, also known as **Single Sign-On** (**SSO**), for your Lotus Domino mail server to use Lotus Quickr integration features in IBM Lotus Notes 8.5. Users can access Lotus Quickr servers just by allowing the LTPA token to be passed through the whitelist, if your Lotus Domino server is configured for SSO and the Lotus Quickr servers that you are connecting to are in the same domain. Users will be prompted during each session to authenticate with the servers they are connecting to, when the Lotus Quickr server is not in the same domain.

# The future road map (Project Vulcan)

Social technologies are moving quickly into the enterprise. Companies overall are starting to move away from e-mail- and document-centered systems to new social-based systems. The enterprise has discovered social software and cloud technologies to help move into the next millennium. At Lotusphere, in January 2010, IBM announced the blueprint for the future of collaboration. This vision was called **Project Vulcan**. This IBM project provided a specific road map that includes future elements of collaboration, integration, messaging, and application development. The key theme of this particular project from IBM includes social and business analytics. IBM said, "The vision of Project Vulcan intends to deliver collaboration across company boundaries". As IBM expands this project into specific IBM Lotus software products, you will see the use of the following:

- HTML5
- xPages
- Web services

Each of these new integration points will be hosted on the new Eclipse Lotus Notes 8.x client. Project Vulcan is the next part of these "new" technologies. Lotus Notes is a growing platform and will continue to grow with each new type of social software.

# Summary

Lotus Domino 8.5.3 is an improvement over previous releases. The development team has introduced some significant new features that will assist with providing existing environments an enhanced **Return On Investment** (**ROI**) by upgrading and deploying the new features. Delivering an enhanced ROI to match the end user experience that was seen with Notes 8.5 was achieved. This can be leveraged by moving forward with an upgrade or deployment of Lotus Domino 8.5.3.

It is very important to access the appropriate resources to ensure that the deployment of the new features closely matches with the knowledge gained from other installations. This chapter was intended to provide an overview of the new release of Domino and provide some steps on how to best take advantage of them in a new or existing environment. It should not be used to replace other tools available online or through a Service Provider, which may outline updated information that may be reflected differently.

In the next chapter, we will cover best practices when upgrading to IBM Lotus Notes and Domino 8.5.3.

# 7

# Upgrading to Lotus Notes and Domino 8.5.3

After you have decided to upgrade to Lotus Notes and Domino 8.5.3, you will need to create an upgrade plan. Most of the companies are not able to upgrade all users (clients) and servers at once. There are several things that you need to consider before you upgrade. This chapter explains these things. Overall, the upgrade process from the Notes 6 or Notes 7 clients is relatively easy. You can use the Smart Upgrade process for upgrading these clients.

> The Smart Upgrade Tracking reports will only be created for Notes client versions 6.5.3 and later.

This chapter is divided into two main sections. In the first section, we look at the Lotus Notes and Domino upgrade process in general, discussing concepts and steps that should be considered whenever you upgrade to any major release of Lotus Notes and Domino. In the second section, we look at upgrade issues that are specific to Lotus Notes and Domino 8.5.3.

In this chapter, we will cover the following topics:

- The Lotus Notes and Domino upgrade process
- The Lotus Notes and Domino 8.5.3 upgrade process
- A use case document example

# The Lotus Notes and Domino upgrade process

The Lotus Notes and Domino upgrade process consists of a number of phases. These are listed as follows:

- Vision and direction
- High-level architecture analysis
- Use cases
- Requirements
- Agreements
- Final target architecture
- Creating the design and upgrade plans
- Creating a test plan
- Testing
- Creating upgrade process documents and plans
- Executing logistics plans and schedules
- Creating pilots
- Updating and final changes
- Transformation management

These phases are explained in the sections that follow.

## Vision and direction

This phase is where you define your goals for the upgrade. These goals can include your business needs, a basic idea of your current IT architecture, and some rough timelines for the upgrade. A simple vision charter might read something like this:

*THE COMPANY will upgrade their ND5/6/7/8 architecture to Lotus Domino 8.5.3 in X months, taking advantage of new Lotus Domino 8.5.3 features, and will also consolidate several servers during the upgrade.*

# High-level architecture analysis

Before you upgrade, make sure that you know what you have. Experience tells us that most companies cannot identify 100 percent of their environment. A good review is prudent, so as to keep surprises to a minimum. Take the time to obtain a list of applications, including e-mail applications and custom applications, backup systems, virus scanners, and web-based services and appliances. Build an inventory of all things that "touch" Domino. This will help you identify any items that may be affected by the upgrade.

One of the best methods to help determine your inventory is to use native Lotus Notes/Domino tools. These include the following:

- `log.nsf` (the statlog process will create the entries in `log.nsf`—database inventory)
- `names.nsf` (use the server view to get a complete inventory of servers)
- `statrep.nsf` (the collector process will update this database)
- `DDM.NSF` (if enabled, use this to determine the overall health of your Domino environment)
- **Domino Configuration Tuner**: This tool provides an extensive list of potential problems that should be fixed before you upgrade your servers

# Use cases

A use case, in this context, is a statement and description of a system/service that defines the use and behavior of an environment. A basic use case should include the following elements:

- Upgrade steps
- Description of requirements
- Goals to help target requirements
- Identification of *actors* (these are the people using the system, for example, users, administrators, operators, and so on)
- Identification of associations between use cases and actors

These documents will help you build a set of requirements. In each use case, you should also identify various states of the upgrade. Examples include upgrading the servers and enabling the new mail policy feature, once all of the clients and servers have been upgraded.

A use case can point to the need for:

- Client upgrade
- Server upgrade
- On-Disk Structure (ODS) upgrade (optional with Lotus Domino 8.5.3)
- Communications and transformation management
- Application upgrade
- Custom API upgrades
- Calendaring and scheduling (including rooms and resources)
- Administration tool upgrade
- SMTP service upgrade
- Security impacts
- Directory impacts
- Process upgrade
- Help desk

A sample use case is included at the end of this chapter.

> As already stated, ODS 51 is optional with Lotus Domino 8.5.3, but ODS 51 is needed if you require the use of the Domino Attachment Object Service (DAOS).

# Requirements

When all the use cases have been created and agreed on, you can summarize them into a total list of requirements. These use cases and requirements can be used to determine upgrade steps, use of new features, systemic impacts, budgets, and timelines. These requirements will be used to create the "draft" target architecture.

## Agreements

This phase is where you will build out your budgets, build out decision records, and obtain agreements from all interested parties in your organization. After all of the agreements have been approved and signed, your target architecture can be finalized.

## Final target architecture

At this point, the final target architecture can be created. In most organizations, this will normally be a phased approach. It can take several iterations to get to this final architecture. One example would be the new Lotus Domino 8.5.3 programming functions. In order to take advantage of this feature, you will need to have both servers and clients upgraded before the new functions are enabled.

## Creating the design and upgrade plans

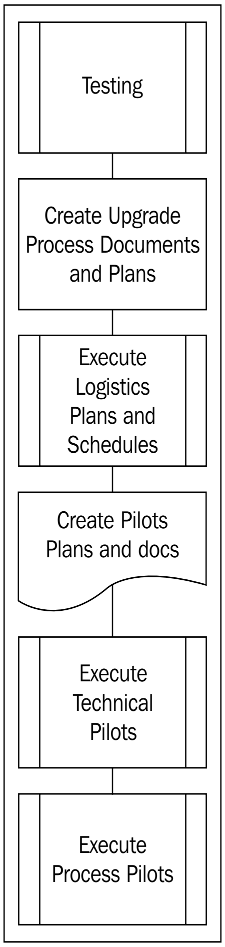
This is where you start to detail the upgrade process. You will need to begin documenting the process that will be used as a step-by-step upgrade guide.

## Creating a test plan

Remember the identification of new features and requirements? This is where you create a test plan to test each of the upgrade elements, which includes the server, clients, applications, custom tools, and other items.

# Testing

The following flowchart shows the testing and pilot process:


Testing
Create Upgrade Process Documents and Plans
Execute Logistics Plans and Schedules
Create Pilots Plans and docs
Execute Technical Pilots
Execute Process Pilots

Each part of the upgrade should be tested before you actually put any new technology into a production environment. Most companies execute tests that are known as unit or component tests. These tests are the basic components of the new technology. For example, you might choose to test the Lotus Notes 8.5.3 client on a sampling of your current PCs. This particular test verifies that Lotus Notes 8.5.3 will run on your existing hardware and does not affect any other applications and/or the PC environment. As testing progresses, you will start to include each element into the environment, for example, Notes 8.5.3 on the network, Lotus Notes 8.5.3 on applications, Lotus Notes 8.5.3 client that will access a Domino 6 or 7 server, and so on.

The goal is to test Notes/Domino in a holistic test environment that replicates various parts of your production environment.

> One very important step is to contact each vendor for any third-party tools and utilities. The upgrade process will make changes to the directory, and then to each server. Be sure to contact every vendor and determine whether or not Lotus Domino 8.5.3 (or any new release of Notes/Domino) is supported by that vendor. Double-check to verify that APIs have been recompiled (as needed) by the vendor, and that the new directory is supported. Then do your own testing, to make sure that all APIs are working as advertised by the vendor.

## Creating upgrade process documents and plans

Create all of the upgrade steps, procedures, and schedules, training, and Frequently Asked Questions documents. Some of these documents will be the actual upgrade steps and checklists. If you are upgrading a large number of servers and users, then you can use a tracking database and/or a spreadsheet. The results of the testing will be manifested in the upgrade process. Also, communication plans should be created at this time.

## Executing logistics plans and schedules

This is where you order any equipment, hire any additional staff, and start the overall upgrade process. Included in the scheduling process will be the execution of pilots.

## Creating pilots

Next, create and document each pilot that is needed. You will need two pilot types:

- Non-production pilots (technical pilots and process pilots)
- Production pilots

As we mentioned earlier, you should test as much as possible in a test environment, before executing a production rollout. These non-production pilots are an opportunity to test each step of a process. These should include:

- Upgrade steps
- Training and education
- Communications
- Help desk testing and FAQ
- Executive help staff

One important step of the pilots is "lessons learned". Each pilot is an opportunity to modify upgrade steps and processes.

Non-production pilots are normally separated into two types. These are listed as follows:

- **Technical pilots**: Technical pilots verify that each holistic step of the upgrade works correctly
- **Process pilots**: Process pilots verify that the actual checklists and documents are correct

Once all of the pilots have been completed, you will need to start the actual upgrade process. Use a set of "friendly" users (never use executives!) for the first pilot. The preceding diagram shows two production pilots. In reality, you will execute as many as are needed. Each pilot will provide lessons learned to be used for the next pilot.

## Updating and final change

After all the pilots have been executed, and you have had an opportunity to update the processes and make any final changes to the overall upgrade process, you will be ready to roll out the upgrade to your enterprise.

## Transformation Management

When upgrade/migration projects fail, it is always the "people issues", not technical problems, that are the root cause. **Transformation Management** (**TM**) is a formal process to help identify and mitigate people issues associated with each project. Change is implied by any upgrade and/or migration. TM takes into consideration the various work environment issues that occur during the upgrade/migration project. One core fundamental part of any TM plan is communication.

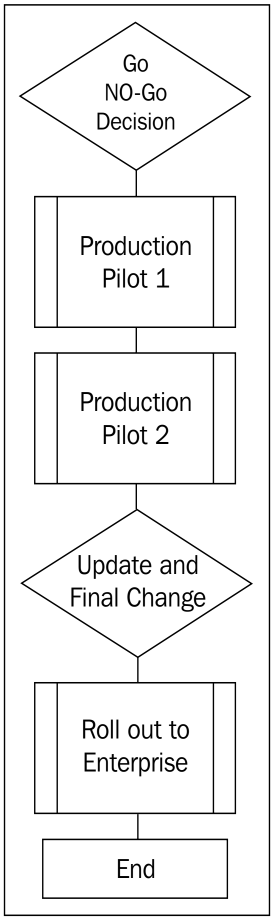
Here is a simple example that could form the basis of the communication part of a TM plan.

Your company is taking on a migration/upgrade to Lotus Domino 8.5.3. Your company may experience a few changes to the architecture, some changes to end user clients, and possibly a few changes to the administration teams. In some cases, the end user and administrators may require some training on Notes and Lotus Domino 8.5.3. Your company should consider the following activities as part of the administration and migration team's transformation management activities:

- Develop a team name, for example, "The Lotus Domino 8.5.3 Upgrade Team". Also create a team logo.
- Develop a team charter, for example, "Migrate/upgrade *x* number of users in *n* number of weeks".
- Announce the date of the final "migration done" party.
- Create an intranet website with a list of FAQs, and the names and pictures of the migration team members.
- Create a Red/Yellow team to isolate the migration team from the end users (post-migration issues).
- Develop two sets of communications from the migration team to end users. This should be added to the overall TM planning.
- Introduce users to the migration team. These users will be notified about the migration team and their purpose. Also, users should be instructed about whom they should contact with questions about the upcoming migration. LPS/ISSL recommends that the help desk be trained about the migration and possible end user questions.
- A pre-migration FAQ should be created and hosted on the Intranet.
- Print posters with the name of the team and the logo at the top of the poster, and place them where they are likely to be seen (break rooms, elevators, and so on).
- After users have been migrated, send out a weekly message to the migrated users, with "Tips of the week" and other relevant information.
- Three milestone meetings will be needed for your company's migration/upgrade:
    - **The opening meeting**: The CIO or CEO should open this meeting. A quick five-minute pep talk is all that is needed from the VPs, but it could be important for the team to let them know that there is executive support. The lead project manager will launch the migration, announce the plans, hand out procedures, and review the whole process.

    - **The "half-way" meeting**: This occurs when 50 percent of users have been migrated. This is a great cause for celebration, so give out some special awards!
    - **The final party**: At the "98 percent of users migrated" mark, close out the migration. Move the remainder of the migration processes to the permanent support staff.
- Close the project.
- Transfer any leftover migrated users into the Customer Ready State and then notify the support staff that this step has been completed.

A "go/no-go" decision is made before the production pilots are executed. This decision will be based on the results of the testing and pilots. If all have been successful, then the next step will be the production pilots:


Go
NO-Go
Decision
Production
Pilot 1
Production
Pilot 2
Update and
Final Change
Roll out to
Enterprise
End

# The Lotus Notes and Domino 8.5.3 upgrade process

So far, we have discussed a generic Lotus Notes/Domino upgrade process.
In this section, we will discuss the specific upgrade process for Lotus Notes/Lotus Domino 8.5.3.

# Reviewing the current infrastructure (The health check)

Before you upgrade, you will need to identify the components and systems that will be affected by this upgrade. This is an opportunity for you to execute a system-wide health check. This normally includes a review of the following:

- **Servers**: Identify any existing issues, such as crashes, problem servers, and slow access. Your servers should be tested before you process the upgrade. Be sure to set up similar servers in a test environment, and use Server.Load to test the performance capabilities of your servers. Also, make sure that your servers are not "sick"; you should not upgrade a server that is crashing or having hardware issues. Fix issues and problems before you upgrade.
- **Monitoring systems**: This includes Tivoli, DDM, BMC, and so on. There are many new monitoring features with Lotus Domino 8.5.3. Be sure that your current monitoring systems work with Lotus Domino 8.5.3 and that there are no conflicts with any new features.
- **Directory architecture**: This includes directory analysis and directory customization. This is a big step. Analyze your directory, and determine whether or not there is any customization. Determine whether or not any custom design features (views, forms, and so on) need to be moved into a new directory. In some cases, you may find these customizations are no longer needed in Lotus Domino 8.5.3.
- **Clients**: Test your clients and make sure that your current hardware and software configuration will support Notes 8.5.3.
- **PDA and/or other wireless systems**: With each new release, new features are added. Be sure to verify that any new features don't conflict with your PDA devices. For example, we have seen in the past where an ODS change broke the connection between the local PDA and the data on the Notes Client.
- **AdminP status**: This is a great opportunity to make sure that `admin4.nsf` is replicating to all servers and that all AdminP ACL database assignments are correct. Also, there are new features that allow you to set up several directory AdminP servers using Extended Directory access control.

- **Application analysis**: This includes any issues with applications being upgraded, custom templates, and API analysis. Be sure to test your applications with Lotus Domino 8.5.3. In general, upgrading to Lotus Domino 8.5.3 should not result in any issues relating to existing applications, but it's always a good idea to test with any upgrade. Make sure that your custom APIs are still working as needed with Lotus Domino 8.5.3. In some cases, you may need to recompile some of these APIs, and in other cases, you may no longer need the APIs.
- **Custom templates**: This includes checking for customization of system templates. You can compare this customization with any new features in Lotus Domino 8.5.3, and determine whether or not you need to move this customization into the templates and applications. The use of the Ives TeamStudio Delta tool will help you with your analysis.
- **Messaging architecture**: This includes NRPC services, SMTP services, messaging tracking, enterprise-wide communications, mass mail, corporate communication, and co-existence with other messaging systems and other tools. NRPC rarely causes problems during or after upgrades, but it's never a bad idea to test this anyway. Make sure that **NRPC Notes Name Networks** (**NNN**) or **Domino Named Networks** (**DNN**) work as before the upgrade. Test each SMTP services feature that is enabled. Test each Domino message tracking feature that is enabled in your current environment. There are a wide variety of mass-mailing tools and other customized features that may be installed in your environment. Be sure to test each of these tools. Large enterprise organizations can have several varieties of mail systems and servers. Test any custom interfaces, software, and SMTP connectivity. Be sure and check out the new Out-of-Office configuration features for ND8—you now have the option of using the router to launch the Out-of-Office messages in place of the standard agent.
- **Other services and servers**: There are a large number of Lotus/IBM products. All of these need to be tested. Examples include Quickr, Sametime, LEI, SMTP gateways, virus scanners, backup services, and provisioning systems. Ensure that these products (and the versions that you have installed) are supported by Lotus/Domino 8.5.3.
- **Domino replication**: This includes activity logging, replication topology, replication settings, connection documents, access control, replication schedules, cluster replication, if enabled. Our experience with most upgrades is that there is rarely an issue with replication and upgrades, but be sure to test this.

- **Messaging topology**: This includes server topology, named networks, domains, inbound and outbound message flow, routing requirements, routing priorities, volume metrics, client strategy, server versus local replication, alternative client access (POP, IMAP, web, and mobile users), and hand-held device recommended practices (Treo versus Blackberry). With ND7 a new task was added—the Room and Resource Manager task. Be sure to test your Rooms and Resources architecture as part of your upgrade.
- **Mail-enabled applications**: Most Domino architectures will have several mail-enabled applications. These can, and will, be affected by an upgrade to a new release of Domino. Overall, Lotus Notes and Domino provide great backward compatibility, but you still need to exercise due diligence regarding any new LotusScript elements, new "@functions", and new design elements. At the minimum, verify that the mail-in database records are functioning correctly.
- **Architecture**: This includes high-level review and connections to internal systems such as networks, unified messaging, and SMTP/Internet domains.
- **Network**: This includes platforms, DNS/DHCP, and remote access. Overall, we see very little impact to this area, with an upgrade. Again, take the time to test the new release to make sure that the "basics" work.
- **Calendar and scheduling**: This includes user calendaring (delegation, manager access, and so on) and enterprise scheduling (resources, shared group calendars, and so on).
- **Directory**: This includes directory architecture (in particular directory design), directory management, directory synchronization, naming (servers, users, organizations and organizational units).
- **Security**: This includes ACL access, anonymous access, encryption and certificates, certification practice statement, organization structure, ID management, and access controls (file server system, console and physical, server access/passthru/deny, client execution control, and administration access).
- **Capacity**: Determine if servers can handle current user loads (mail file size and hardware sizing), load balancing/sage, and capacity planning. Our experience is that each new release of Domino provides better performance in the CPU and memory, and that each new release provides more features. With each new feature or function, you will find additional resources being used—in particular, system memory. Be sure to monitor, via statistical baselines, the impact of a new release on the current setup of hardware.

- **Configuration settings**: These are a very important part of the server upgrade. Review each server configuration to determine if you need to make any changes.
- **Environmental variables**: Check for abandoned `Notes.ini` variables and obsolete `Notes.ini` settings. Check the online support tools for this list. The release notes may also have some information about the current set of supported `Notes.ini` variables.
- **Management and administration**: Change control, administration model, client management, remote access recommendations, staffing levels, service monitoring and reporting, systems management, and backup and restore models.
- **ESX/VMware**: There are a number of Domino enterprises that are looking at ESX and VMware. At the time of writing, there are limited sets of data regarding the successful use of ESX for Domino "messaging". If you are considering using ESX for ND8 messaging, we suggest the following:
    - Review the current supportability statements (URL and release notes) from IBM on this topic.
    - If possible, do not upgrade to both ND8 and ESX/VMware at the same time. This is the old rule of not making too many changes at once.
    - Be sure to set up a test lab to check how ESX will work with a shared CPU and memory model. Also, pay close attention to the Disk I/O queues. Server.Load can help you with testing loads/scripts.

If you are using clustering, you should monitor the work queue depth and seconds on queue statistics.

> It is recommended that you run the **Domino Configuration Tuner** (**DCT**) before you upgrade your servers. This tool will evaluate server settings according to a set list of best practices. At the time of writing, this tool will analyze servers in a single domain, which can be evaluated together. Once the DCT tool executes, it will generate a number of valuable reports that explain each rule output that the DCT ran against. For more details, see *Chapter 11*, *Domino Configuration Tuner*.

Overall, the DCT is easy to use—as of this writing, there is no easy way to export the reports (look for an enhancement in the future for this). A simple LotusScript agent that you can run to export the DCT data has been provided by the following sample code:

The following code is not supported; use at your own risk. This is not official Lotus Notes code.

```
Sub Initialize

 '* Name:  DCT export Sample Code
 '* Author: Authors
 '* Notes:  This code is not supported -- use at your own risk
 '*


 '--- Declare Class Variables

 Dim session As New NotesSession
 Dim db As NotesDatabase
 Dim view As NotesView
 Dim doc As NotesDocument
 Dim rtitem As NotesRichTextItem

 '--- Declare Variables

 Dim strStatus As String
 Dim strServer As String
 Dim strSeverity As String
 Dim strExplanation As String
 Dim strRecommendations As String
 Dim strDatabases As String
 Dim strDatabasesList As String
 Dim StrException As String
 Dim strLink_0, strLink_1, strLink_2, strLink_3, strLink_4 As String
 Dim strTemp As String

 Dim intDebug As Integer
 Dim intFileNum As Integer
 Dim intLoop As Integer

 '--- Initialize Class Variables

 Set db = session.CurrentDatabase
 Set view = db.GetView( "vwScansMostRecent" )
 Set doc = view.GetFirstDocument

 '--- Initialize Variables
```

```
    intDebug = False
    intFileNum = Freefile()

    '--- Open the report file

    Open "c:\dct_report.htm" For Output As #intFileNum

    '--- Loop through the documents in the View

    While Not ( doc Is Nothing )

     '--- Set the first text fields
     strStatus = doc.RuleStatus(0)
     strServer = doc.ServerName(0)
     strSeverity = doc.Severity(0)

     '--- Set the Explanation Rich Text Field
     Set rtitem = doc.GetFirstItem( "Explanation" )
     If Not (rtitem Is Nothing) Then strExplanation = rtitem.Text

     '--- Set the Recommendations Rich Text Field
     Set rtitem = doc.GetFirstItem( "Suggestion" )
     If Not (rtitem Is Nothing) Then strRecommendations = rtitem.Text

     '--- Set the remaining fields
     strException = doc.Exception(0)
     strDatabases = doc.ResultList(0)
     strLink_0 = doc.Link_0(0)
     strLink_1 = doc.Link_1(0)
     strLink_2 = doc.Link_2(0)
     strLink_3 = doc.Link_3(0)
     strLink_4 = doc.Link_4(0)

     '--- Process the database list

     strDatabasesList = ""
     For intLoop = 1 To Len(strDatabases)
      strTemp = Mid$(strDatabases, intLoop, 1)
      If strTemp = "," Then strDatabasesList = strDatabasesList + "<br>"
      Else strDatabasesList = strDatabasesList + strTemp
     Next

     '--- If Debug mode, display contents of the document
    If intDebug = True Then Messagebox _
    "Status:" & Chr$(9) & strStatus & Chr$(10) & Chr$(13) & _
    "Server:" & Chr$(9) & strServer & Chr$(10) & Chr$(13) & _
    "Severity:" & Chr$(9) & strSeverity & Chr$(10) & Chr$(13) & _
    "Explanation:" & Chr$(9) & strExplanation & Chr$(10) & Chr$(13) & _
    "Recommendations:" & Chr$(9) & strRecommendations & Chr$(10) &
      Chr$(13) & _
    "Exception:" & Chr$(9) & strException & Chr$(10) & Chr$(13) & _
    "Databases:" & Chr$(9) & strDatabasesList & Chr$(10) & Chr$(13) & _
    "Link 0:" & Chr$(9) & strLink_0 & Chr$(10) & Chr$(13) & _
    "Link 1:" & Chr$(9) & strLink_1 & Chr$(10) & Chr$(13) & _
    "Link 2:" & Chr$(9) & strLink_2 & Chr$(10) & Chr$(13) & _
    "Link 3:" & Chr$(9) & strLink_3 & Chr$(10) & Chr$(13) & _
    "Link 4:" & Chr$(9) & strLink_4,, "Debug"

    '--- Write the document to a file
    Print #intFileNum, "<hr>Status: " & Chr$(9) & strStatus & "<br><br>"
    Print #intFileNum, "Server: " & Chr$(9) & strServer & "<br><br>"
    Print #intFileNum, "Severity: " & Chr$(9) & strSeverity & "<br><br>"
    Print #intFileNum, "Explanation: " & Chr$(9) & strExplanation &
  "<br><br>"
    Print #intFileNum, "Recommendations: " & Chr$(9) &
  strRecommendations & "<br><br>"
    If strException <> "" Then Print #intFileNum, "Exception: " &
  Chr$(9) & strException & "<br><br>"
    If strDatabasesList <> "" Then Print #intFileNum, "Databases: " &
  Chr$(9) & strDatabasesList & "<br><br>"
    If strLink_0 <> "" Then Print #intFileNum, "Link 0: " & Chr$(9) &
  strLink_0 & "<br><br>"
    If strLink_1 <> "" Then Print #intFileNum, "Link 1: " & Chr$(9) &
  strLink_1 & "<br><br>"
    If strLink_2 <> "" Then Print #intFileNum, "Link 2: " & Chr$(9) &
  strLink_2 & "<br><br>"
    If strLink_3 <> "" Then Print #intFileNum, "Link 3: " & Chr$(9) &
  strLink_3 & "<br><br>"
    If strLink_4 <> "" Then Print #intFileNum, "Link 4: " & Chr$(9) &
  strLink_4 & "<br><br>"

    '--- Process the next document
    Set doc = view.GetNextDocument( doc )
   Wend

   '--- Close the report file
   Close #intFileNum
```

```
    '--- Write a message to show the process is complete
    Messagebox "Report complete",,"Process"

   End Sub
```

## The upgrade process

After you have checked the infrastructure, it is time to start the upgrade. The steps mentioned in the following sections show the basic upgrade path. This path can vary, based on your research and the use cases that you have created.

### Systemic normalization

The first step of your upgrade is to "normalize" your architecture. We have already mentioned that it is important not to make any changes, upgrades, or migrations to an environment that is sick. Take the time to review each health check category and determine if your environment is stable. If it is stable, you can then upgrade your architecture.

### Upgrade the Domino Administrator clients

Upgrade all of your Domino Administrator clients. Verify that all features and functions run in the current environment before you upgrade your first server.

### Upgrade the Domino Directory

This step can be executed before you upgrade your first server. Remember the use case above? Use that to drive the upgrade of the directory, making any customizations and changes required. Be sure to work with IBM/Lotus support to make sure that the directory is backward compatible with your current directory. (You should have done this in the testing phase of the upgrade.)

### Upgrade the administration server

This is a very important server. AdminP requires that you assign an administration server to the Domino Directory (`names.nsf`). The AdminP server task runs on all Domino servers. This task loads when the Domino server is first started, and is controlled through the `notes.ini` variable ServerTasks. The AdminP server task wakes up at periodic time intervals (specified in the Administration Process section of the Server document) and executes commands waiting in the Administration Request database. Each command placed in the Administration Request database has an assigned proxy action. These proxy actions are essentially the op-code that runs the administration process. Each command placed in the Administration

Request database is represented by a document. Each document has a number of fields, including one called **proxy action**. After each action has completed on a server, a response document is created to indicate the status of that request. There is a new option (since release 7) to use multiple servers to maintain the Domino Directory. If a Domino domain is geographically dispersed, then you can use several servers to process administration requests.

## Carefully evaluate your administration server

Due to the new complexities of Lotus Domino 8.5.3 and some new proxy actions, you may need to have a dedicated administration server. AdminP can generate a large number of proxy actions, as your architecture grows.

## Upgrade utility servers

This step can be different with each customer. In some cases, the hub server can be upgraded first, then the utility servers. Utility servers are defined as SMTP, support, tools, and other servers. In some cases, vendors may not be ready with their updates to support a new release of Domino.

## Upgrade hub servers

Upgrade each server, and then monitor the "normal" operations between each upgrade. Verify that replication is still working, that agents are still executing, and that mail is still routing.

## Upgrade spoke/messaging servers

After the hub servers have been completed, upgrade your spoke and messaging servers.

## Upgrade specialized servers

In some cases, these may be some of the first servers you upgrade. One example would be specialized backup software. Once again, you need to contact your vendor before you upgrade your first server or upgrade the directory. The issue here is backward compatiblility. Verify with each vendor that the tools and utilities will work with each release.

## Upgrade the application servers

One important step is to test the applications before you upgrade.

## Upgrade Notes clients

You are now at the point where you can upgrade the Notes clients. Smart Upgrade can be used, if you have Notes/Domino 6/7 installed. If not, you can use an MSI-/MST-type install process to roll out the code.

## Implement new Lotus Domino 8.5.3 features

When all servers and clients have been upgraded, you can implement the new Lotus Domino 8.5.3 features. Each feature should be tested, and in some cases, you may need to build an architecture/design for each feature. One new feature that you should consider is the mail policy. This is a new policy that can be enabled after you have upgraded both servers and clients. Also, you can review it using the following new features:

- **DAOS**: ODS 51 is required.
- **Mail policy settings for iNotes** (**DWA**): Lotus iNotes supports some of the mail policy settings that can be applied either to IBM Lotus Notes users or to Lotus iNotes (DWA) users.
- **Desktop policy settings for iNotes** (**DWA**): Lotus iNotes supports some of the desktop policy settings.
- **New dynamic policies**: Dynamic policy assignment is a new option for assigning explicit policies that allow you to assign policy settings to individual users and groups just by specifying the appropriate user or group name in a policy document.
- **Notes shared login**: Notes shared login allows users to start IBM Lotus Notes and use their Notes IDs without having to provide Notes passwords.
- **ID vault**: The ID Vault is a Domino database that holds a secure copy of Notes user IDs. The use of the ID Vault allows administrators to more easily manage Notes user IDs.

## Upgrade applications

When your architecture is pure Lotus/Domino 8.5.3, you can start to implement new Lotus Domino 8.5.3 features in your applications. Use the testing methodology discussed in the *Testing* section.

## Special feature upgrade considerations

Lotus Notes and Lotus Domino 8.5.3 include a number of important new features. These features are discussed in *Chapter 2*, *Overview of New Lotus Notes 8.5.3 Client Features*, and *Chapter 3*, *Productivity Tools*, in this book. Be sure to consider the following features as part of your upgrade planning:

- **Productivity tools**: Lotus Notes 8.5.3 includes a set of office productivity tools that support the Open Document Format (ODF) standard. These include IBM Lotus Documents (create, edit, and share word-processing documents), IBM Lotus Presentations (create and deliver presentations), and IBM Lotus Spreadsheets (create spreadsheets and analyze numerical data).
- **LOB**: Lotus Notes/Lotus Domino 8.5.3 also makes it easier to integrate **Line of Business** (**LOB**) solutions and data into new types of applications, called composite applications. Composite applications are manifested in the frontend of a Service-Oriented Architecture (SOA).
- **Mail recall**: This is a "planned" option of Lotus Domino 8.5.3. Work with your administrator to determine if you can use this feature and what options are available.
- **Improved Out-of-Office capabilities**: This includes an option to specify special hours, in addition to specific dates. Now, notifications can be sent almost immediately if a person has enabled the Out-of-Office agent.
- **Central management**: Lotus Domino 8.5.3 offers the option to centrally manage initial deployment and upgrades of Lotus Notes 8.5 client software and composite applications. Using server-managed provisioning, you can even deploy different Lotus Notes 8.5 client features to different users. This new capability will support the existing Lotus Notes Smart Upgrade feature.

## A use case document example

The following is an example of a use case document. You can use this example as a guideline when creating your own use case documents, which is an important step in the Lotus Domino 8.5.3 upgrade process:

**Use case**

Domino Server Upgrade.

### Subject area

This use case identifies the basic steps needed to upgrade the messaging servers from Notes/Domino 7 (or 6.x) (or 5.x) to Lotus Domino 8.5.3.

### Business event

The upgrade will provide new TCO and management features to your company.

### Actors

- Architecture team
- End user
- ISSL
- Administration team
- Operations
- Support teams

### Use case overview

This use case deals with the architecture.

### Help and support

Be sure to check out the following sites for help and support from IBM and Lotus:

- **Upgrade Central**:`http://www-306.ibm.com/software/lotus/support/upgradecentral/index.html`
- **Forums**: `http://www.ibm.com/developerworks/lotus`
- **Wiki Domino Upgrade Cookbook**: `http://www-10.lotus.com/ldd/dominowiki.nsf/dx/UC1_TableofContents.htm`

# Summary

In this chapter, we presented a high-level overview of the steps involved in the Lotus Notes and Domino upgrade process. We then discussed the tasks and considerations specific to upgrading your environment to Lotus Notes and Domino 8.5.3. We also included an example use case that you can use as a template for your own use cases, as well as links to sites that can provide you with additional Lotus Notes/Domino 8.5.3 upgrade information.

In the next chapter, we will examine common co-existence issues between Lotus Notes/Domino releases.

# 8

# Coexistence between Notes/Domino Releases

This chapter discusses the coexistence between Notes/Domino 8.5.3 and the earlier versions. When you install a new release, there are several things to consider relating to coexistence with earlier releases of Notes/Domino. For example, always test coexistence scenarios before implementing changes in your production environment. Follow the recommended upgrading routine described in *Chapter 7*, *Upgrading to Notes and Domino 8.5.3*. Be sure to check with `http://www.ibm.com/developerworks/lotus` to find the most recent technical notes and articles on *Coexistence*.

In this chapter, we will cover the following:

- Notes client coexistence
- Domino server coexistence
- LotusLive hybrid

## Notes client coexistence

Although running two different releases of the Notes client on one workstation is an unsupported configuration, it can be done. The Notes 8.5.3 install program will automatically upgrade any existing Notes client. But you can install Notes 8.5.3 on a PC, while retaining the previous version of the Notes client.

> In the following section, we will assume that Notes 7 is installed in the default Windows client for e-business locations (`C:\Notes` for programs, and `C:\Notes\Data` for the data directory). If you run Notes 7 from another directory (such as `C:\Program Files\Lotus\Notes`, the default Notes 7 product install location), all references to `C:\Notes` should be substituted with that directory, in the description that follows.

If you want to save your existing Notes 7 (or 6) client binaries, but still want to share the data directory (which is the easiest to use and switch between), you should do the following:

1. Copy the existing Notes directory and subdirectories to a Notes 7 directory. You only need to copy the Notes directory and the `JVM`, `license`, `MUI`, and `xmlschemas` subdirectories (not the data subdirectories), but it is easier to copy all directories and subdirectories if you have the space. For this, do the following:
    - Create a new desktop shortcut to run the Notes 7 version. To do this:
        - Create a copy of your existing Notes desktop shortcut icon, then right-click on it and choose **Properties**.
        - Change the **Target** value under the **Shortcut** tab to: `<path>\notes7\notes.exe =<path>\notes\notes.ini`. (This indicates Notes 7 executables using the Notes 8.5 `Notes.ini` file and data.)
        - Change the **Start in** value to `<path>\notes7`.
        - Change the **Title** (**General** tab) to **Notes 7**.
        - Click on the **OK** button to close the **Properties** dialog box.
        - Install the Notes 8.5.3 client.
2. The Notes 8.5.3 installation will upgrade the original Notes directory and subdirectories to Notes 8.5.3 (leaving your Notes 7 copy alone).
3. If you want to save your existing Notes 7 client binaries and data, keeping two separate data directories and `Notes.ini` files, then perform the following:
        - Copy the existing Notes directory and subdirectories to a Notes 7 directory. Edit your `notes7\notes.ini` file, replacing any references to `\notes\` with `\notes7\`.
        - Create a new desktop shortcut to run the Notes 7 version.
        - Create a copy of your existing Notes desktop shortcut icon, then right-click on it and choose **Properties**.
        - Change the **Shortcut** tab **Target** value to `<path>\notes7\notes.exe = <path>\notes7\notes.ini` (This indicates Notes 7 executables using the Notes 7 `Notes.ini` and data.)

  - Change the **Start in** value to `<path>\notes7`.
  - Change the **Title** (**General** tab) to **Notes 7**.
  - Click on the **OK** button to close the **Properties** dialog box.
  - Install the Notes 8.5.3 client.

> You will see that various file extensions will be associated with Lotus Notes. These include `.nsf`, `.ntf`, `.ns2`, `.ns3`, `.ns4`.

The Notes 8.5.3 installation will upgrade the original Notes directory to Notes 8.5.3, but you will still have a separate copy of your Notes 7 binaries and data. Usually, you would upgrade Notes clients, after upgrading your Domino servers. This way, Notes users can take advantage of the new features that exist on the server, such as mail message recall (which also requires that the mail template be a Notes 8.5.3 design).

There are actually two Lotus Notes clients—the basic Notes 8.5.3 client and the standard Notes 8.5.3 Eclipse-based interface. The basic Notes client offers a subset of features of the Eclipse-based client.

## Basic Notes 8.5.3 client

The basic Notes 8.5.3 client cannot utilize the Eclipse-based technology such as productivity tools, vertical preview pane, composite applications, the sidebar, and mail improvements related to recent contacts. The basic client should be used on low memory workstations that do not meet the higher requirements of the Notes 8.5.3 Eclipse client. There are also other impacts to running the basic client as follows:

- Integrated Sametime will not have the same level of features and functionality
- Widgets will not be available
- The preference GUI will be displayed differently

## Standard Notes 8.5.3 client

The standard Notes 8.5.3 client has full Eclipse extensibility. It makes use of the Java-based Eclipse technology to enhance existing Notes functionality such as mail, calendar, and contacts. Eclipse architecture allows the integration of other applications, such as productivity tools and composite applications, into Notes. With the standard client, widgets can be added to the sidebar.

> For more information on the features that are not available in the Notes 8.5.3 Basic client, consult the Notes 8.5.3 release notes.

## Calendaring and scheduling

Many of the new features in Notes 8.5.3 require the server, the client, and the mail file design to be at the base (or minimum) version 8 code-streams to function properly. As a result, most of this new functionality will be unavailable to users until all three are upgraded.

## Calendar delegation

Calendar delegation occurs when an owner of a calendar gives another user access to their calendar for the purpose of managing it (for example, a manager giving access to an assistant). These users require special planning when upgrading to Notes 8.5.3. The best practice is to upgrade the clients of the delegate and owner at the same time. We also recommend upgrading the templates at the same time. This will limit issues that can occur if the clients do not have the same release.

# Domino server coexistence

This section discusses the coexistence of Domino 8.5.3 and the previous versions of Notes/Domino. This will occur as soon as you upgrade your first server. This state is called a **mixed environment** due to the existence of the Domino 8.5 server code as well as the pre-Domino 8.5.3 code. The following sections detail the areas where coexistence issues can and do appear.

## Domino Directory

One of the first things to do is to upgrade the design of the Domino Directory to Notes/Domino 8.5.3. This can be done in advance, before the server code upgrade, or at the same time as you upgrade your administration server. There are Domino 8.5.3 features that may not function on pre-Domino 8.5.3 servers. These features are mostly found in the server and configuration documents.

If you have applications that rely on custom views in your Domino Directory, we recommend that you test your applications with the new Domino Directory design. If possible, before upgrading from a previous release, clean up any unneeded views and agents in the existing Domino Directory. After the design of the Domino Directory has been upgraded, the next phase is to upgrade the server code. One of the biggest issues found after an upgrade is that the directory does not properly upgrade. There are several techniques and tools to help determine if the directory design has been upgraded correctly. One example is where the "person" form has not upgraded correctly. If this happens, then the "new" person elements will not be displayed correctly. One simple technique to check for a design difference is to use the Lotus Notes Designer and check if the design date is different in the `Pubnames.ntf` template from the design element in `names.nsf` after the upgrade.

## On-Disk Structure (ODS)

In Domino 8.5.3, the default On-Disk Structure (ODS) is the same as in Notes/Domino 7—ODS 48. There is a new ODS in Domino 8.5, ODS 51. This new ODS is optional, and should be applied if you need to utilize these new features. In particular, you will need ODS 51 in order to use the Domino Attachment and Object Service (DAOS).

## Administration Requests and events databases

After you upgrade your server, the Administration Requests database (`admin4.nsf`) and events database (`events4.nsf`) will automatically be upgraded. There should be no issues because the design of these upgraded databases replicate to the other servers. It is recommended that you check to make sure the design elements upgrade correctly.

## Rooms and Resource Reservations database

The Rooms and Resource Reservations database has not changed from Notes/Domino 7. If you are upgrading from Domino 7, then you will not need to make any changes. If you are upgrading from the Domino 6.x code stream, some changes will be necessary. Resource Reservation databases with a design of 6.x or earlier are not supported on the Domino 8.5 server. In releases prior to Notes/Domino 7, the router was the task that processed reservations in the Resource Reservations database.

Starting in Notes/Domino 7, there is a new task that performs this duty—the Rooms and Resources Manager (`RnRMgr`) task. This new task was added to prevent some of the issues such as double booking that was seen when the router task was used.

The `RnRMgr` task is now responsible for processing all reservation requests. This task will also update the `busytime.nsf` database with room and resource requests. One very important consideration with the new `RnRMgr` task is that this task must be loaded in the Server tasks line in the `notes.ini` settings of each server that requires this task.

The Schedule Manager (`sched`) task is no longer responsible for updating the server busytime for rooms or resources.

One potential advantage of the `RnRMgr` task is that all servers can now run SMTP as both the internal and external mail routing service. Historically, the NRPC service was required due to the fact that the router was integrated into the rooms and resources process.

One new web functionality has been added to the room and resource reservation database in 8.5.3. When an end user accesses the rooms and resources database from the web, the user can delete reservations and also create repeat meetings. This requires the 8.5.3 Resource Reservations database design.

# Domino Domain Monitoring

**Domino Domain Monitoring** (**DDM**) was first introduced in Domino 7. Most DDM probes do not function on a pre-Domino 7 server. There are also some new probes that are specific to new features and functions in Domino 8.5. For the new features in DDM in Domino 8.5.3, refer to the Domino 8.5.3 administrator help.

# Policies

There are several new policies that have been introduced in Domino 8.5.3. New policies that were introduced in Domino 7 or 8 will not be recognized by Notes 6.5.x or earlier clients. Newer policies will not adversely affect the earlier client; they will not be recognized or enforced until the client is upgraded to Notes 8.5.3. One example of a new 8.5.3 policy that will only work on 8.5.3 clients and above is the machine-specific policies. For more information on policies, refer to the *Policies* section in *Chapter 5*, *Deployment Enhancements in Notes/Domino 8.5.3*.

# Message recall

While in a mixed environment, if the message recall functionality is enabled, users will not be able to recall a message for a user on a pre-Domino 8.5 server. Message recall is no longer enabled by default.

# Cluster coexistence

A new feature in Domino 8.5. code is **Streaming Cluster Replication** (**SCR**). SCR takes advantage of the fully-connected nature of clusters and Notes data streaming to produce a low-impact cluster replicator. SCR provides a significant reduction in cluster replicator latency.

In a mixed cluster, the SCR feature will not work. Both servers attempting to replicate in the cluster need to be at a minimum Domino 8.5 (or at least 8.x) code stream in order for SCR to occur. In a mixed cluster, the Domino 8.5.3 server will attempt to initiate SCR. When it cannot do so, it will fail and revert back to a regular replication. Cluster replication will function as it did before the upgrade and mixed cluster state. Once two or more of the servers in the cluster have been upgraded to a minimum of Domino 8.5, Streaming Cluster Replication will automatically occur between them.

In the Domino base code 8.5, there have been some minor changes to the cluster database directory or `cldbdir.nsf`. These changes are all backward compatible with pre-Domino 8.5 servers. You can have mixed releases in a cluster. However, we suggest you upgrade the cluster mates in quick succession.

As with all upgrades, it is recommended that you check the data consistency of all your databases before the upgrade:

- Check to make sure that the data in `names.nsf` was not modified
- Make sure that any changes to `cldbdir.nsf` are retained after the upgrade
- Make sure that `admin4.nsf` is clean (upgrade and docs approved ) before you upgrade

# Out-of-Office

There have been changes to the **Out-of-Office** (**OOO**) functionality. Now there is the option of having the Out-of-Office feature as a *service* rather than as an *agent*. If one of the servers in the cluster is running the pre-Domino 8.5 code, the Out-of-Office feature must be run as an agent.

The original Out-of-Office agent was based on a LotusScript agent that was integrated into the Lotus Notes mail template. Once enabled by the end user, the Out-of-Office agent automatically responds to mails that arrive into the end user's mail file. Once this message arrives then the agent, based on a scheduled time, will execute and respond with a user-based message stating that they are out of the office.

The service provides the ability for instant response for out of office responses. The following table shows the differences between the Out-of-Office agent and the service:

| **Functionality** | **Service** | **Agent** |
|---|---|---|
| OOO Response time | Instant response | Every six hours (default) |
| Support for cluster failover? | Yes | No |
| OOO Disables when done | Automatic disable | Manual disable |
| Minimum duration time | One hour | One day |
| User Delegation | Supports delegation with **Access Control List** (**ACL**) | Supports delegation with ACL agent security |

The Out-of-Office service requires a minimum of the Lotus Domino 8 server, the Lotus Notes 8 client, and the Lotus Notes 8 mail template.

# Domino Web Access

Domino Web Access requires two aspects to work properly:

- **Mail file template**: In Notes/Domino 8.5.3, the mail template is built into Domino Web Access. There is no longer a separate mail file template for all Domino Web Access.
- **Forms database**: New features are added to the Forms Database with each release. In Notes/Domino 8.5.3, the Forms Database is called `Forms8.nsf`. So if you upgrade the template to Domino 8.5.3, make sure there is such a file on the server.

If a web access issue occurs and is affecting all users, then most likely it is a template issue. If the issue only affects users on a single server, then it is most likely an issue with the `Forms8.nsf` on that server.

# ID files

In each Domino release, there have been changes to the encryption key length so as to provide enhanced security. Older keys can be used on new clients, but they are not forward compatible. This means that newer keys cannot be used on older clients. It is advisable to upgrade your ID files after you have completed your entire upgrade to Notes/Domino 8.5.3. This will provide you with the enhanced security offered by the longer key length. Also, be sure to check out the ID vault feature, new with Notes/Domino 8.5.

# LotusLive hybrid

LotusLive hybrid is a new option when extending your on-premises environment into the cloud. In this coexistence state you will have servers behind your firewall making secure connections to the LotusLive Notes cloud servers. The servers that you will need to set up as the hybrid servers will have specific functions such as mail routing, pass through, and directory synchronization. These servers must meet the requirements discussed in the following sections.

# Supported Server Versions

Domino servers will need to be added if you are using the LotusLive hybrid configuration. For existing mail servers to be able to do free-time look up, they need to be at a minimum release. The following table outlines the supported server versions for setting up a hybrid environment as well as mail server requirements for free-time look up in LotusLive Notes:

| On-premises server type | Supported versions |
|---|---|
| Mail routing servers that connect directly to LotusLive Notes mail servers for mail routing. | Lotus Domino 8.5.1 Fix Pack 2 or a later fix pack, or a later release. |
| Administration server (used by the Administration Process) for the Domino Directory of at least one directory synchronization server. | Lotus Domino 8.5.1 Fix Pack 2 or a later fix pack (with corresponding Domino Directory template), or a later release. |
| Directory synchronization server (if in a different domain than the directory synchronization server referred to in the previous row in this table). | Any supported version of Lotus Domino. |
| Mail servers that request the free time of LotusLive Notes users. | Lotus Domino 8.5.1 Fix Pack 2 or a later fix pack, or a later release. |
| Passthru domain servers. | Any supported version of Lotus Domino. Lotus Domino 8.5.2 or later is recommended for a fast response time for connections from the LotusLive Notes server to on-premises servers. |

For more information about planning and configuring your LotusLive Notes hybrid environment, refer to the LotusLive Notes Wiki: `http://www-10.lotus.com/ldd/bhwiki.nsf`.

# Summary

In this chapter, we examined a few coexistence issues involved with running Notes/Domino 8.5.3 in a mixed environment with one or more previous releases. We began by taking a look at the Notes client coexistence. We explained how to install two different versions of Notes on a workstation, and discussed potential issues with calendaring and scheduling in a multi-release environment.

We concluded with a discussion of the Domino 8.5.3 server coexistence, including features such as the Domino Directory and ODS.

In the next chapter, we will look at the new features in the Lotus Designer 8.5.3 and the enhancements to 8.5.3 application development.

# 9

# New Features in Notes/ Domino 8.5.3 Development

For the past 20 years, the combination of Lotus Notes and Domino has been the premier collaborative application platform of choice. Small businesses and Fortune 500 companies alike are using the Notes/Domino application platform for e-mail, calendaring and scheduling, instant messaging, and applications.

There are hundreds of IBM business partners supporting the community of approximately 130 million users with their daily blogs, websites, podcasts, and support forums. Any visit to Lotusphere, IBM's premier end user conference for the Lotus brand, will leave your head spinning with a myriad of possibilities to integrate Notes/Domino with other technologies in your business.

So, what exactly is the strategy for the future of Notes/Domino development? Given that IBM has a history of protecting their user's investments in the platform, the strategy is obviously one of extension of the platform while continuing to support legacy applications.

All of the applications written for the platform have one thing in common, the end user. The end user operates in a specific context. For Notes/Domino users, this context is one of Notes for collaboration (e-mail, calendaring, and instant messaging), an operating system with its file system for other work such as storage and retrieval of documents, and other applications and office technologies.

The IBM strategy for Notes/Domino is to allow the user, in his or her context, to collaborate more effectively in new flexible ways while maintaining the ability to support legacy and new open composite applications.

One way this is being done is by allowing developers new and better ways of taking complicated and related applications, and placing them together to create new conceptual whole applications, or composite applications (applications that are composed of two or more applications). In order to allow this within the Notes/Domino application platform, IBM has added new development tools and features, allowing Notes/Domino the ability to take part in the new world of Service-Oriented Architectures (SOAs), while continuing to support the rich legacy of applications already built. Based on the new SOA, this chapter will include a review of:

- Composite applications
- New Lotus Domino Designer 8.0 client features
- New Lotus Domino Designer 8.5 client features
- New Lotus Domino Designer 8.5.1 client features
- New Lotus Domino Designer 8.5.2 client features
- New Lotus Domino Designer 8.5.3 client features
- Lotus Component Designer
- New Web 2.0 features
- Lotus Expeditor

# Composite applications

**Composite applications** are applications that consist of two or more components that may have been independently developed, working together to perform tasks that none of the member applications could perform by itself. Each component publishes and consumes messages from other components, and performs actions based upon user interaction or information received from other components. Support for composite applications is one of the central points for Notes/Domino 8. Composite applications in Notes 8 can wire together multiple components from Notes applications, Lotus Component Designer applications, and Eclipse into a single application context for the end user.

Composite applications, whether they are based on Notes/Domino 8, Web Sphere Portal, or Lotus Expeditor, are the frontend or user interface to an enterprise's SOA strategy. They, in effect, consume the services that are offered by the composite architectures put in place to support SOA.

An example of a composite application would be a simple customer relationship management application. This application needs to display a list of accounts, opportunities, and contacts to end users.

The accounts component should display accounts owned by the end user. When the end user selects an account in the account component, the opportunities for that account should be displayed in the opportunities component, and all of the contacts for the first opportunity should be displayed in the contacts component.

In the application described, the components are "communicating" with each other by publishing and consuming properties via a property broker. When the user clicks on an account, the account component publishes the `accountkey` property to the property broker. The opportunities component has been written to "listen" for the `accountkey` property to be published, and when it is, it performs a lookup into a data store, pulling back all the specific opportunities for the published account key. Once it has displayed all of the opportunities for the account, it selects the first opportunity for display and then publishes the `opportunitykey` property to the property broker. The contacts component then performs a lookup to display all of the contacts for the opportunity.

When the user selects a different opportunity, the opportunity component again publishes an `opportunitykey` property and the contacts component receives this new `opportunitykey` property and displays the correct contacts for the selected opportunity.

Using component applications, developers can respond quickly to requests from the line of business for functionality changes. For example, in the case of the customer relationship management application described, the line of business may decide to purchase a telephony component to dial the phone and log all phone calls made. The developers of the application would need to simply modify the contact component to publish the phone number of a contact with a name that the new telephony component listens for and the call could be made on behalf of the user.

In addition to being used within the customer relationship management application, the components developed could be put together with other components to form entirely different applications. Each component already understands what data it needs to publish and consume to perform its actions, and contains the code to perform those specific actions on backend systems. The reuse of the components will save the developers and the organization time whenever they are reused.

Composite applications also require a new programming model for Notes/Domino 8. This model mirrors the model within WebSphere Portal 6, in that multiple components are aggregated into a single UI with the property broker acting as the "glue" that allows the various components to interact and share data, even if the components are from different systems. This programming model is something new in Notes 8 and required some changes to Domino Designer 8.

As a side note, the new programming model of composite applications will most probably bring its own set of problems. For example, what happens in a composite application when one of the components fails? In this "composite crash" situation, what does the composite application need to do in order to recover?

Additionally, from an infrastructure point of view, composite applications will only be as available as their weakest component. What good would a reservations system, implemented with many components, be if one of the components were not hosted by a highly available infrastructure, while the others were? We see these sorts of issues being dealt with currently by customers venturing into the composite world via SOAs.

There are two main categories of change for development related to composite applications in Notes/Domino 8 application design and programming. We will look at both of them in the following sections.

# Application design

In order to allow your Notes or Domino application to participate within a composite application, you must first decide which design elements need to be accessible to other components. To make these components available to other components within your composite application, they are specified within a **Web Services Description Language** (**WSDL**) file. The composite application property broker then uses this WSDL file as a map into your application and its published properties and actions.

To allow this mapping to occur, the Composite Application Editor is used. Without making changes to legacy Notes/Domino application functionality, the Composite Application Editor can be used to surface the elements of the application such as forms, views, documents, and other Notes elements to the composite application.

Another element of composite application design is deciding where the application components will reside. Composite applications can be hosted within a local NSF file on a Notes client, on a Domino 8 application server, in the WebSphere Portal, or in Lotus Expeditor. The Notes/Domino application components are created with the Composite Application Editor, while WebSphere Portal composite applications can be created with the Composite Application Editor or the Portal Application Template Editor.

# Programming

As mentioned earlier, the addition of composite applications to the development strategy for Notes/Domino 8 required some changes and additions to the existing programming model.

Within a composite application, the components must be able to interact even if they were defined with different tools and technologies. Some components may even be stored within different database technologies. One component may be NSF-based while another may be stored within a relational database store. The components need a standardized way to define the properties and actions that they support, so that an application developer can wire them together into a composite application. The standard way to define these properties and actions is via a WSDL file.

Let's take a quick look at properties, actions, and wires.

# Properties

Component properties are the data items that a given component produces. They are either input properties (consumed by the component) or output (produced by the component) properties. Each property is assigned a data type, which is based on the WC3 primitive data types. These include `String`, `Boolean`, `decimal`, `time`, and `date`. The primitive data types can also be utilized to build new data types. For example, within Notes 8, some new data types for components will be available that map to common data available within the mail, calendar, and contacts applications. Some of these new data types are listed in the following table:

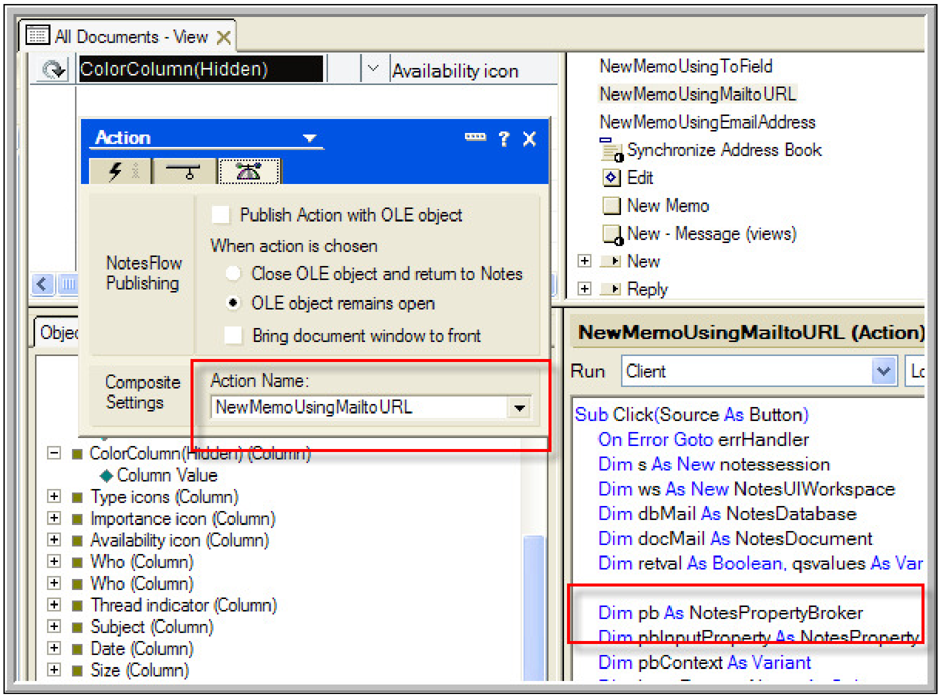
| **Data type name** | **Extends data type** | **Description** | **Example** |
|---|---|---|---|
| `mailTo` | `String` | List of people to receive an e-mail | `"mailto:suzie@company.com?subject=Our Dogs are Smart&cc=frankie@company.com,domino@company.com&bcc=gromit@company.com` |
| `e-mailAddress822` | `String` | E-mail address following RFC 822 | `"My Gerbil <shelbie@company.com>"`<br>`"Little Man <nate@company.com>"` |

# Actions

Actions are the logic that is used to consume a property. For example, a component may implement an action that sends an e-mail when it receives a `mailTo` type property from another component. The code within the component that sends the e-mail based on the information consumed from the property is the action for the component. Components can obviously contain multiple actions depending on the business logic required for the component.

It is easy to confuse a web services action with a Notes action. The web services action is a name in a WSDL file that represents functionality that will consume a property. Notes actions can be coupled with a web services action so that the Notes action gets called to consume a property. The LotusScript in the Notes action can then implement code to act on the property.

The following screenshot shows a Notes action in the Notes 8 mail template that is coupled with a web services action, **NewMemoUsingMailtoURL**. You can see that in the code, the LotusScript is using a property broker to gain access to the property:


All Documents - View
ColorColumn(Hidden)
Availability icon
NewMemoUsingToField
NewMemoUsingMailtoURL
NewMemoUsingEmailAddress
Synchronize Address Book
Edit
New Memo
New - Message (views)
New
Reply
Action
NotesFlow Publishing
Composite Settings
Objec
ColorColumn(Hidden) (Column)
Column Value
Type icons (Column)
Importance icon (Column)
Availability icon (Column)
Who (Column)
Who (Column)
Thread indicator (Column)
Subject (Column)
Date (Column)
Size (Column)

☐ Publish Action with OLE object

When action is chosen

○ Close OLE object and return to Notes

● OLE object remains open

☐ Bring document window to front

Action Name: NewMemoUsingMailtoURL

NewMemoUsingMailtoURL (Action)

Run Client

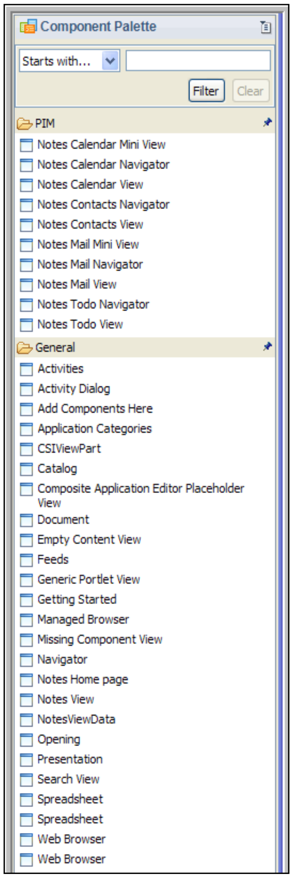
```
Sub Click(Source As Button)
    On Error Goto errHandler
    Dim s As New notessession
    Dim ws As New NotesUIWorkspace
    Dim dbMail As NotesDatabase
    Dim docMail As NotesDocument
    Dim retval As Boolean, qsvalues As Var

    Dim pb As NotesPropertyBroker
    Dim pbInputProperty As NotesProperty
    Dim pbContext As Variant
```

# Wires

Wires are the construct by which components interact within a composite application. A wire is simply a programmatic definition of which components talk to each other. The components must share common properties and then produce and consume them via actions. More simply put, wires connect properties to actions.

For example, an application developer could wire together a contact list component with an e-mail component. When the user selects a contact from the contact list, the contact list component would produce and publish a `mailTo` type property, which could then be consumed by the e-mail component. The e-mail component would consume the published `mailTo` property and compose an e-mail using the data contained within the property.

The following screenshot shows the components available within the Notes 8 mail template that are available for use in other component applications as well, shown from the **Component Palette** within the new Composite Application Editor:



PIM
Notes Calendar Mini View
Notes Calendar Navigator
Notes Calendar View
Notes Contacts Navigator
Notes Contacts View
Notes Mail Mini View
Notes Mail Navigator
Notes Mail View
Notes Todo Navigator
Notes Todo View

General
Activities
Activity Dialog
Add Components Here
Application Categories
CSIViewPart
Catalog
Composite Application Editor Placeholder View
Document
Empty Content View
Feeds
Generic Portlet View
Getting Started
Managed Browser
Missing Component View
Navigator
Notes Home page
Notes View
NotesViewData
Opening
Presentation
Search View
Spreadsheet
Spreadsheet
Web Browser
Web Browser

# New Lotus Domino Designer 8.0 client features

With the addition of composite applications to the development strategy of Notes/Domino 8, there are a number of changes required to Domino Designer 8 to allow for composite applications design, development, and use. Some additional new tools were also required.

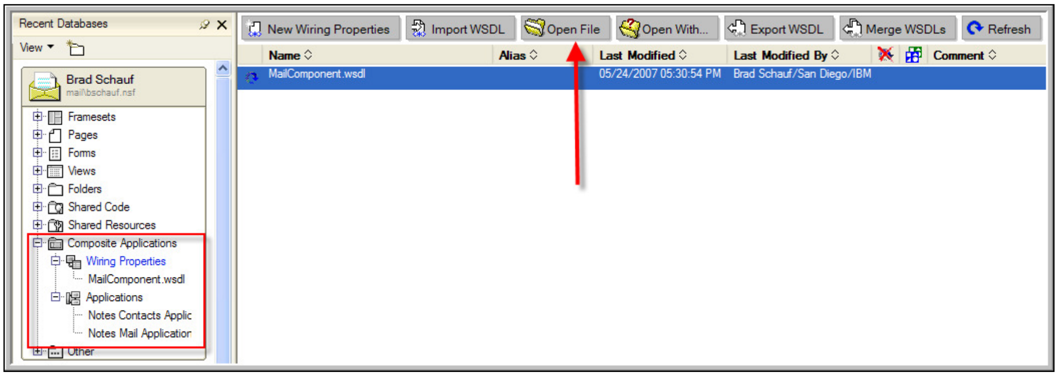
These changes augment existing functionality. They were made without sacrificing supportability of existing applications. They allow legacy applications, as well as new applications, to play a part in an SOA by providing a platform that permits multiple technologies to be combined into a single application, side by side.

## Composite applications support

New Domino Designer 8 features that support composite applications include **Property Broker Editor** and the **Composite Application Editor**.

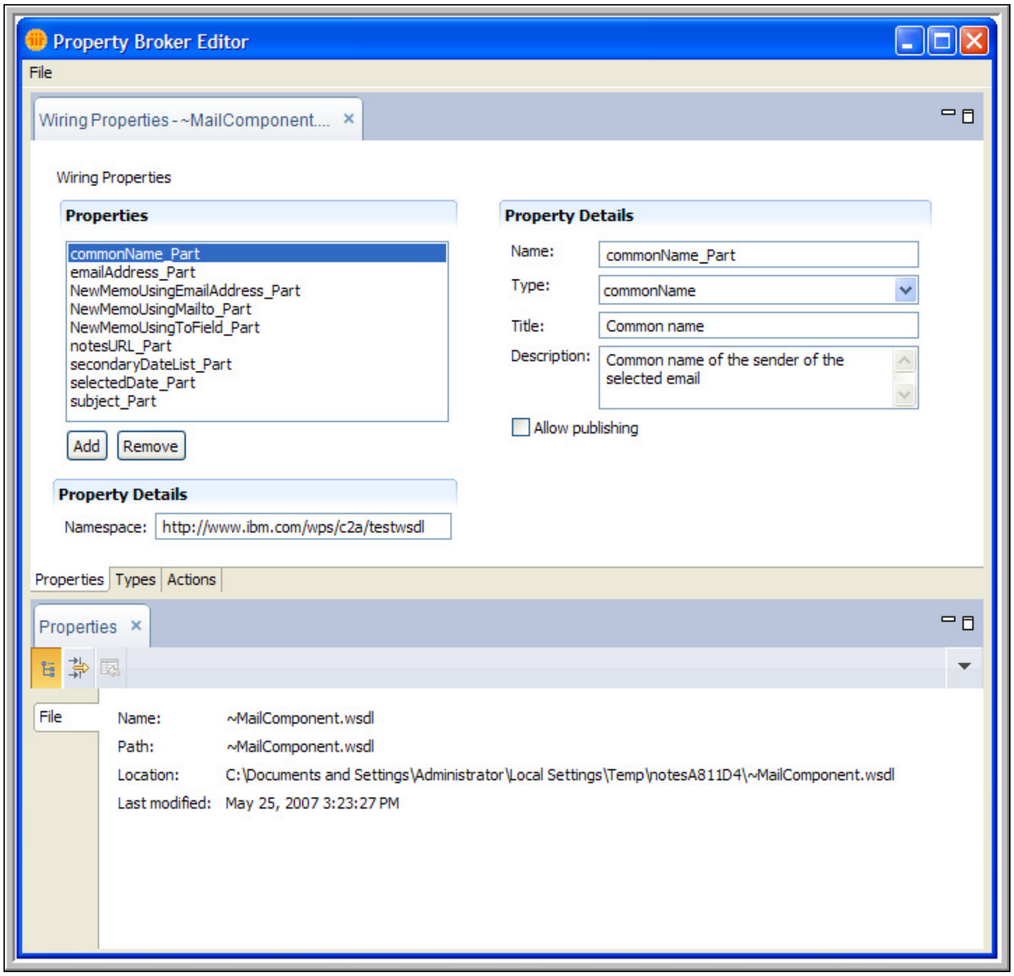
### Property Broker Editor

One of the first things you will notice in Domino Designer 8 is the new support for composite application design elements. These design elements store the WSDL and XML files for wiring properties and applications. You can see these new design elements by selecting the **Composite Applications** item, as shown in the following screenshot:


Recent Databases
View
Brad Schauf
mail\bschauf.nsf
Framesets
Pages
Forms
Views
Folders
Shared Code
Shared Resources
Composite Applications
Wiring Properties
MailComponent.wsdl
Applications
Notes Contacts Applic
Notes Mail Application
Other
New Wiring Properties
Import WSDL
Open File
Open With...
Export WSDL
Merge WSDLs
Refresh

| Name | Alias | Last Modified | Last Modified By | Comment |
|---|---|---|---|---|
| MailComponent.wsdl | | 05/24/2007 05:30:54 PM | Brad Schauf/San Diego/IBM | |

The **Wiring Properties** view is where Domino Designer stores the WSDL that defines the properties, types, and actions for the application. These design elements are edited with the Property Broker Editor, which is new in Domino Designer 8. To edit wiring properties, select the wiring property from the new Notes 8 mail template and click on the **Open File** button. This will open the **Property Broker Editor** dialog box as shown in the following screenshot:


Property Broker Editor
File
Wiring Properties - ~MailComponent....
Wiring Properties
Properties
Property Details
Add
Remove
Properties
Types
Actions
Properties
File

commonName_Part
emailAddress_Part
NewMemoUsingEmailAddress_Part
NewMemoUsingMailto_Part
NewMemoUsingToField_Part
notesURL_Part
secondaryDateList_Part
selectedDate_Part
subject_Part

Name: commonName_Part
Type: commonName
Title: Common name
Description: Common name of the sender of the selected email
☐ Allow publishing

Namespace: http://www.ibm.com/wps/c2a/testwsdl

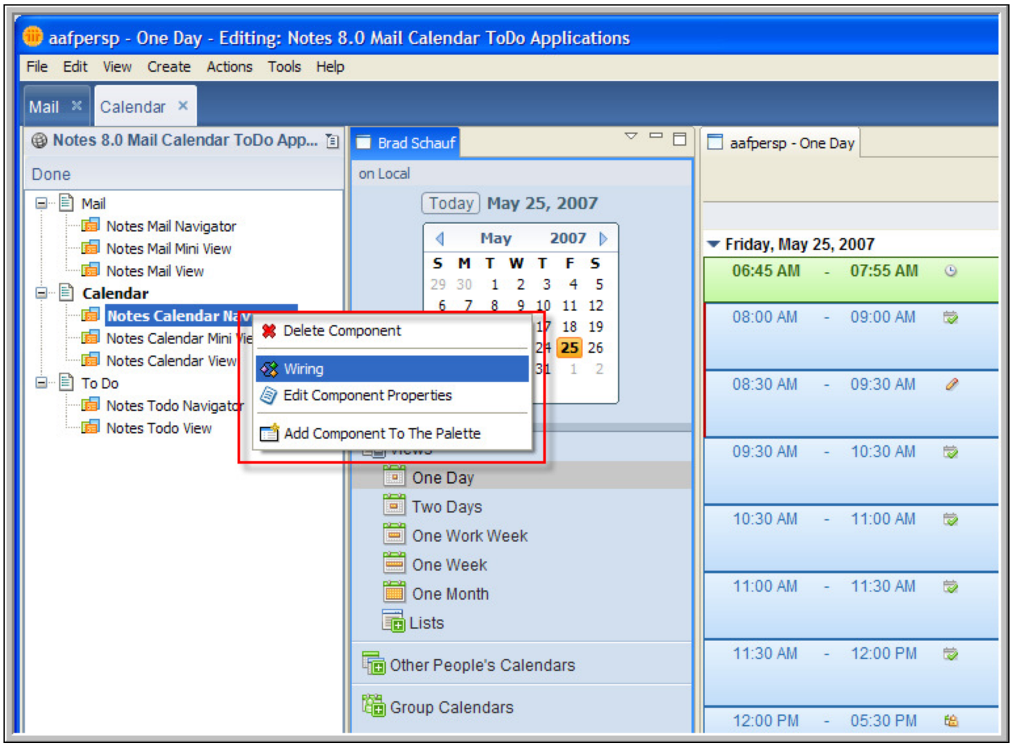
Name: ~MailComponent.wsdl
Path: ~MailComponent.wsdl
Location: C:\Documents and Settings\Administrator\Local Settings\Temp\notesA811D4\~MailComponent.wsdl
Last modified: May 25, 2007 3:23:27 PM

The Property Broker Editor allows you to create or edit the **Properties**, **Types**, or **Actions** for your applications. Once the Property Broker Editor saves the WSDL as a design element, you will be able to associate the defined properties and actions with other design elements.

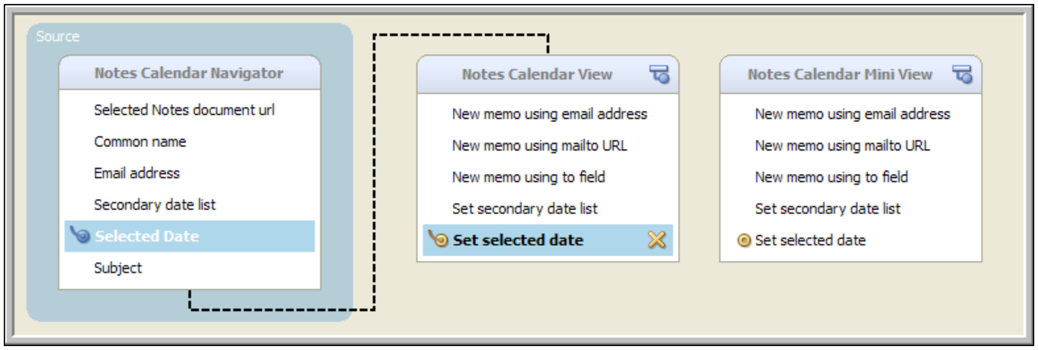
## Composite Application Editor

Also within the **Composite Applications** view, within Domino Designer 8, is the **Applications** listing. These design elements store the XML that defines the makeup of the composite applications and their associated wiring.

However, launching the Composite Application Editor is not done via the Domino Designer interface and may confuse new composite application developers. To launch the Composite Application Editor, open the Notes client and then select **Actions** | **Edit Application**:


aafpersp - One Day - Editing: Notes 8.0 Mail Calendar ToDo Applications
File Edit View Create Actions Tools Help
Mail
Calendar
Notes 8.0 Mail Calendar ToDo App...
Done
Mail
Notes Mail Navigator
Notes Mail Mini View
Notes Mail View
Calendar
Notes Calendar Nav
Notes Calendar Mini Vie
Notes Calendar View
To Do
Notes Todo Navigator
Notes Todo View
Delete Component
Wiring
Edit Component Properties
Add Component To The Palette
Brad Schauf
on Local
Today May 25, 2007
May 2007
One Day
Two Days
One Work Week
One Week
One Month
Lists
Other People's Calendars
Group Calendars
aafpersp - One Day
Friday, May 25, 2007
06:45 AM - 07:55 AM
08:00 AM - 09:00 AM
08:30 AM - 09:30 AM
09:30 AM - 10:30 AM
10:30 AM - 11:00 AM
11:00 AM - 11:30 AM
11:30 AM - 12:00 PM
12:00 PM - 05:30 PM

Once the Composite Application Editor is open, you can select a component and then edit the wires for this component. The following screenshot shows the wiring properties for the **Notes Calendar Navigator** component:


Source
Notes Calendar Navigator
Selected Notes document url
Common name
Email address
Secondary date list
Selected Date
Subject
Notes Calendar View
New memo using email address
New memo using mailto URL
New memo using to field
Set secondary date list
Set selected date
Notes Calendar Mini View
New memo using email address
New memo using mailto URL
New memo using to field
Set secondary date list
Set selected date

# Web Service Consumers

Web Services were supported starting with Notes/Domino 7. However, the web services supported with Domino 7 could only be web service providers. They could be called as a normal web service from a remote computer and return information from Domino databases, or perform other Domino-related functions. It was also possible in release 7 to write web service consumers and have them hosted by Domino, but there was no specific support for web service consumers within Domino and creating them was a matter of Java development.

With the release of Notes and Domino 8, Domino-based web service consumers are supported. Notes/Domino applications can now call web services hosted on remote computers. Notes/Domino 8 makes it simple to call web services. Domino Designer will even import the WSDL and create the code required to use the web service for you.

Unlike web service providers in Domino, which are stored in special design elements, web service consumers in Domino 8 are stored in a special type of script library. This script library can be written in either Java or LotusScript. Just as with other script libraries, code that wants to use the web service consumer must use the script library that contains it.

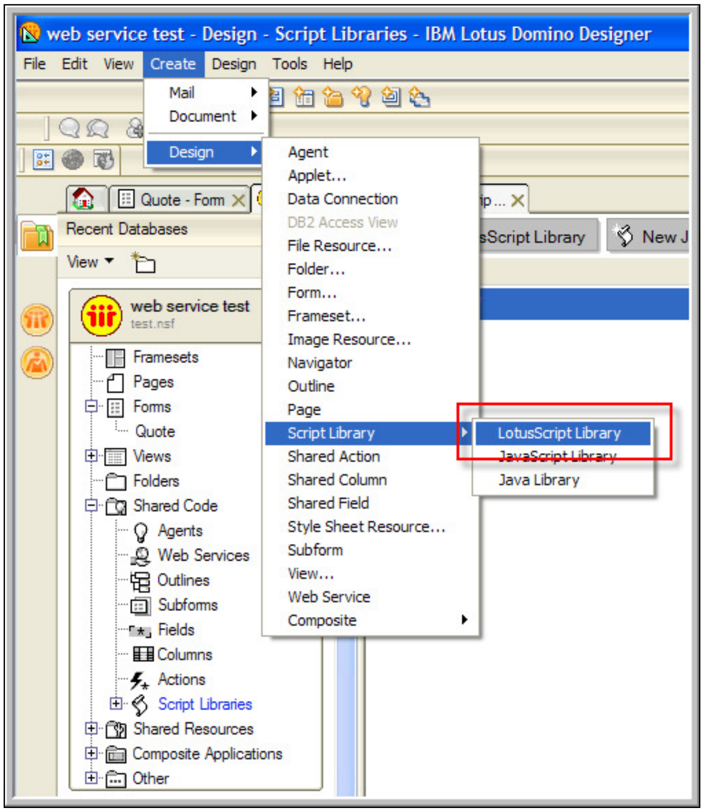
Consuming a web service in Notes/Domino 8 is very simple. The high-level steps are as follows:

1. Locate a web service that you would like to consume and acquire its WSDL file.
2. Create a new script library to contain the web service consumer.
3. Import the WSDL file into the new script library.
4. Have your application call the script library so as to consume the web service.

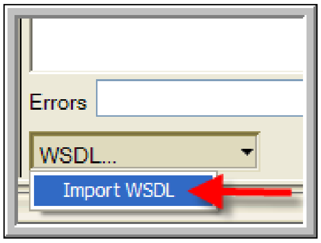
For this example, we have selected a free stock quote web service that retrieves 20 minute delayed quotes from Yahoo! The web service description and its WSDL file are located at the following URL:

`http://www.webservicelist.com/webservices/f.asp?fid=37722`

We will create a script library to contain the web service, create a form with a simple button to prompt the user for a company symbol, and then call or consume the web service and display the resultant stock quote.


web service test - Design - Script Libraries - IBM Lotus Domino Designer
File
Edit
View
Create
Design
Tools
Help
Mail
Document
Design
Agent
Applet...
Data Connection
DB2 Access View
File Resource...
Folder...
Form...
Frameset...
Image Resource...
Navigator
Outline
Page
Script Library
Shared Action
Shared Column
Shared Field
Style Sheet Resource...
Subform
View...
Web Service
Composite
LotusScript Library
JavaScript Library
Java Library
Quote - Form
Recent Databases
View
web service test
test.nsf
Framesets
Pages
Forms
Quote
Views
Folders
Shared Code
Agents
Web Services
Outlines
Subforms
Fields
Columns
Actions
Script Libraries
Shared Resources
Composite Applications
Other
sScript Library
New J

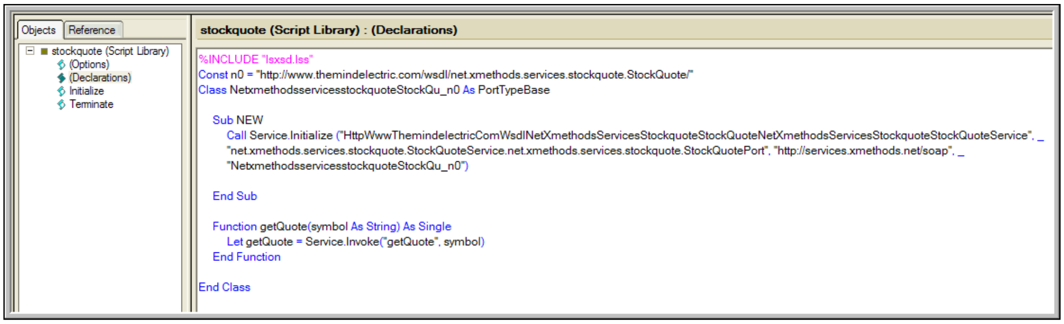
Once you have selected a web service to consume and have its WSDL file, you need to create a new script library to contain the web service code. Create a new application, and select **Create** | **Design** | **Script Library** (see the preceding screenshot). Select either **LotusScript Library** or **Java Library** depending on your language of choice. For this example, we will create a **LotusScript Library**. Save the script library and provide a name for it when prompted. For this example, we called the script library as `stockquote`. Keep this script library open. You now have a new, empty script library, as shown in the following screenshot:



At the bottom of the code window in Domino Designer, you will see a button labeled **WSDL**. This button will allow you to import the WSDL file. This file describes the web service that you are going to consume and also generate the code for consuming this web service. This will save you a lot of time going through the WSDL file and crafting your classes!

Import the WSDL file that you downloaded for your selected service. Notice that Domino Designer generates the class required to consume the web service.

For the free stock quote service selected, the generated LotusScript code looks like the one in the following screenshot:


Objects
Reference
stockquote (Script Library)
(Options)
(Declarations)
Initialize
Terminate
stockquote (Script Library) : (Declarations)

```
%INCLUDE "lsxsd.lss"
Const n0 = "http://www.themindelectric.com/wsdl/net.xmethods.services.stockquote.StockQuote/"
Class NetxmethodsservicesstockquoteStockQu_n0 As PortTypeBase

  Sub NEW
    Call Service.Initialize ("HttpWwwThemindelectricComWsdlNetXmethodsServicesStockquoteStockQuoteNetXmethodsServicesStockquoteStockQuoteService", _
    "net.xmethods.services.stockquote.StockQuoteService.net.xmethods.services.stockquote.StockQuotePort", "http://services.xmethods.net/soap", _
    "NetxmethodsservicesstockquoteStockQu_n0")

  End Sub

  Function getQuote(symbol As String) As Single
    Let getQuote = Service.Invoke("getQuote", symbol)
  End Function

End Class
```

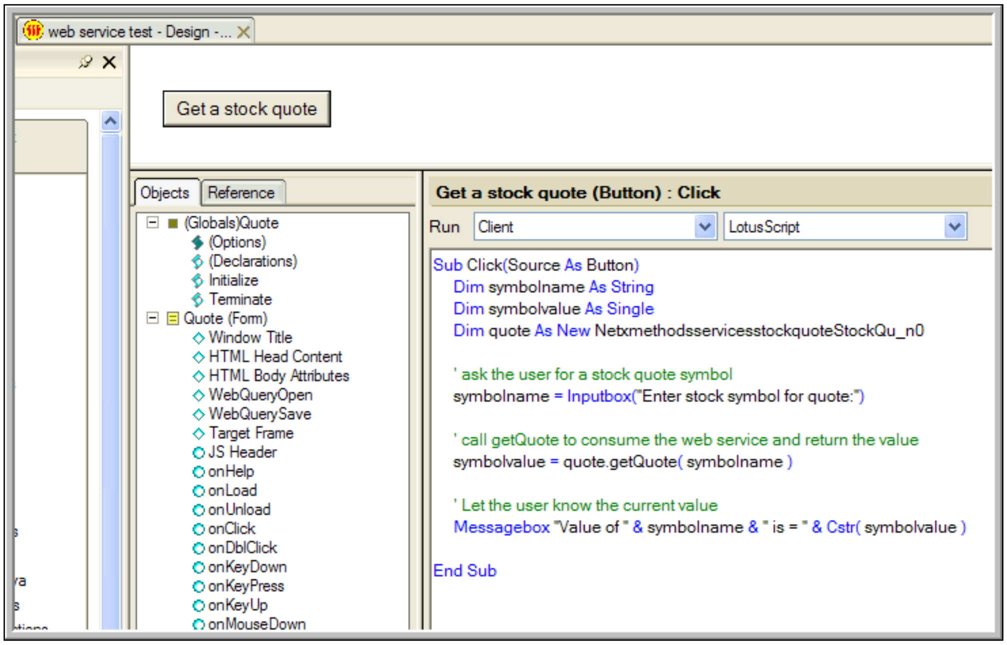
Notice that Domino Designer did the hard work of decoding the WSDL file to create a class with functions to consume the web service. If you want, you may even decide to modify the generated code so as to make it a bit more readable; for example, by changing the class name.

It is a good idea, at this time, to inspect the code that was generated and become familiar with it. In this example, we can see the generated LotusScript created a class called `NetxmethodsservicesstockquoteStockQu_n0` and a function called `getQuote`. Domino Designer got these values from the WSDL file that was imported. We will use the class name and the function name later within our button that will call the script library that consumes the web service.

Now, all we need is some code to consume the web service via the special web services enabled script library that we just created. To keep things simple, let's create a button on a form that will prompt the user for a stock symbol and then display the results.

Create a blank form. Within the **Globals** section of the form, place the following code, which disallows implicit variable declarations (a good practice) and identifies the `stockquote` script library as used within the form:

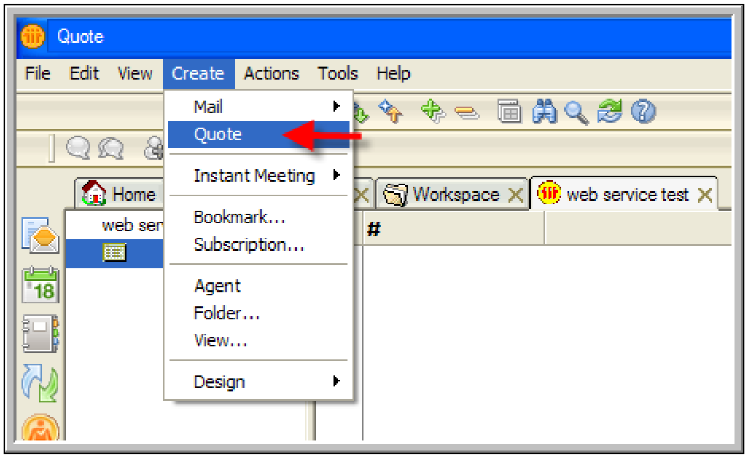
```
Option Public
Use "stockquote"
```


web service test - Design - ...
Get a stock quote
Objects
Reference
(Globals)Quote
(Options)
(Declarations)
Initialize
Terminate
Quote (Form)
Window Title
HTML Head Content
HTML Body Attributes
WebQueryOpen
WebQuerySave
Target Frame
JS Header
onHelp
onLoad
onUnload
onClick
onDblClick
onKeyDown
onKeyPress
onKeyUp
onMouseDown
Get a stock quote (Button) : Click
Run
Client
LotusScript

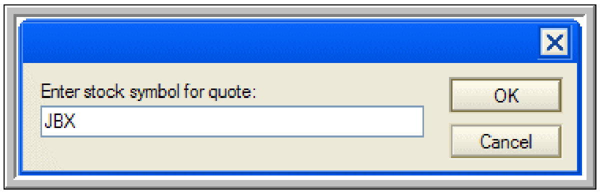
```
Sub Click(Source As Button)
    Dim symbolname As String
    Dim symbolvalue As Single
    Dim quote As New NetxmethodsservicesstockquoteStockQu_n0

    ' ask the user for a stock quote symbol
    symbolname = Inputbox("Enter stock symbol for quote:")

    ' call getQuote to consume the web service and return the value
    symbolvalue = quote.getQuote( symbolname )

    ' Let the user know the current value
    Messagebox "Value of " & symbolname & " is = " & Cstr( symbolvalue )

End Sub
```

On the same form, create a new button. Give the button a clever label such as **Get a stock quote** (as seen in the preceding screenshot), and then insert the code into the button.

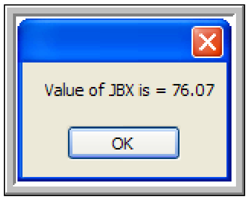
Save the form, and then open the application. Create a new instance of the form that contains the button:


Quote
File
Edit
View
Create
Actions
Tools
Help
Mail
Quote
Instant Meeting
Bookmark...
Subscription...
Agent
Folder...
View...
Design
Home
Workspace
web service test
web ser
18
#

Now, click on the button to invoke the code within it. As shown in the following screenshot, you will be prompted to enter the stock symbol whose quote you would like to retrieve via the web service. For this example, we selected my favorite hamburger chain:


Enter stock symbol for quote:
JBX

When you click on **OK**, Notes will execute the code to invoke and consume the web service. Once that has been done, Notes will then process the `Messagebox` call to present the results:


Value of JBX is = 76.07

This is obviously a very simple example of consuming a web service, but it should open your mind to the possibilities. There are web services available for almost anything you can imagine. Some are free and others are available for a fee. You can use web services to retrieve grocery items by UPC number, perform credit card transaction processing, and even track packages shipped with FedEx or UPS.

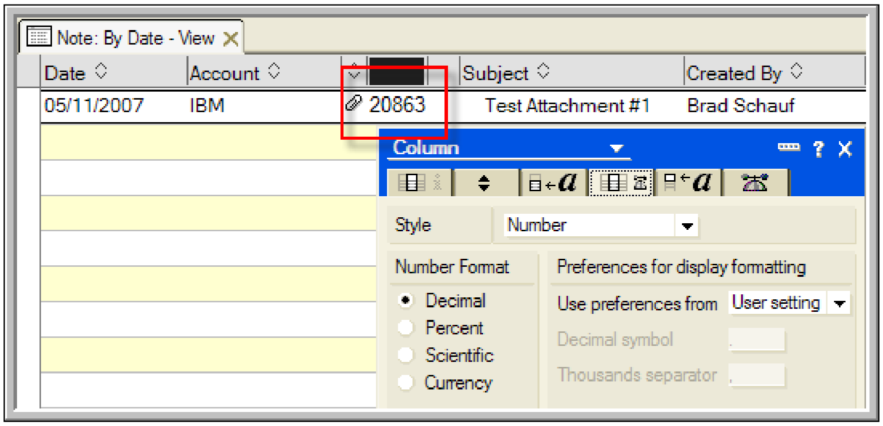
Now that Notes/Domino 8 can consume web services, you have another data integration tool at your disposal.

# View enhancements

Domino Designer 8 view enhancements include new column number formats, extended to use available window width, defer index creation until first use, and show default items in the right-mouse menu.

## New column number format

There is a new number format for number columns that will display the column contents in kilobytes, megabytes, or gigabytes, which makes it much easier to determine the relative size of the number represented in the column. In the following screenshot, the size of file attachments is used:



| Date | Account | | Subject | Created By |
|---|---|---|---|---|
| 05/11/2007 | IBM | 20863 | Test Attachment #1 | Brad Schauf |

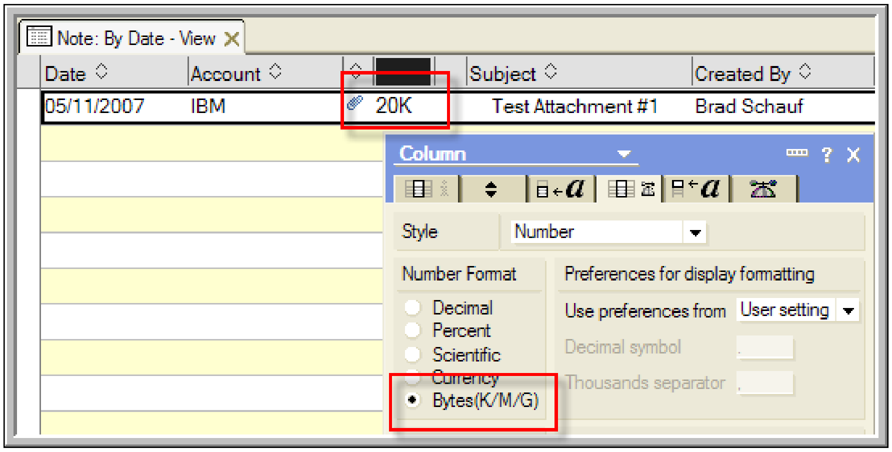
Style: Number

Number Format
● Decimal
○ Percent
○ Scientific
○ Currency

Preferences for display formatting
Use preferences from: User setting
Decimal symbol
Thousands separator

When displayed in Notes 7, the column shows just the size of the attachment for each document.

However, when the same column is displayed in Notes 8 with the **Bytes (K/M/G)** number format, the column displays a much friendlier format as shown in the following screenshot:



Note: By Date - View

| Date | Account | | | Subject | Created By |
|---|---|---|---|---|---|
| 05/11/2007 | IBM | | 20K | Test Attachment #1 | Brad Schauf |

Column

Style: Number

Number Format
- ○ Decimal
- ○ Percent
- ○ Scientific
- ○ Currency
- ● Bytes(K/M/G)

Preferences for display formatting

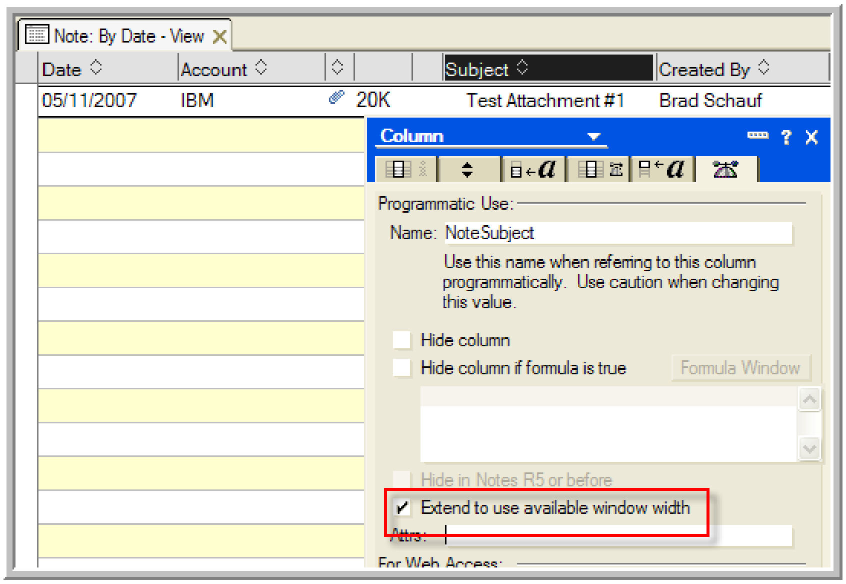
Use preferences from: User setting

Decimal symbol

Thousands separator

## Extending columns to use available window width

In Notes 8, you can select which column within a view to expand, to utilize the available width of the window. In previous releases, this option was only available for the last column in a view:



Note: By Date - View

| Date | Account | | | Subject | Created By |
|---|---|---|---|---|---|
| 05/11/2007 | IBM | | 20K | Test Attachment #1 | Brad Schauf |

Column

Programmatic Use:

Name: NoteSubject

Use this name when referring to this column programmatically. Use caution when changing this value.

☐ Hide column

☐ Hide column if formula is true

Formula Window

☐ Hide in Notes R5 or before

☑ Extend to use available window width

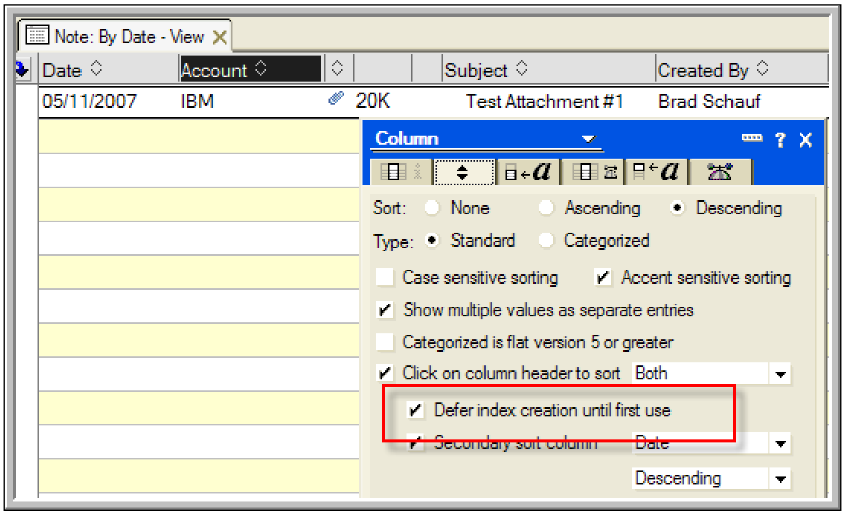
Attrs:

For Web Access:

> For this option to work, the view level option **Extend last column to window width** takes precedence and must be deselected. In addition, the column to be extended must be marked as **Resizable**. Multiple columns can be designated to extend to use the available window width. However, only the first column, which has this attribute set, will expand.

## Deferring index creation until first use

Index creation can now be deferred for **Click on column header to sort** view columns. Using this option, the view index won't be created until a user first clicks on the column to sort it. Only views that users click to sort will have their indexes built. This can help reduce the load on servers, as not all column indexes will be created automatically. They will only be created when they are used:



| Date | Account | | Subject | Created By |
|---|---|---|---|---|
| 05/11/2007 | IBM | 20K | Test Attachment #1 | Brad Schauf |

Sort: ○ None ○ Ascending ● Descending

Type: ● Standard ○ Categorized

☐ Case sensitive sorting ☑ Accent sensitive sorting

☑ Show multiple values as separate entries

☐ Categorized is flat version 5 or greater

☑ Click on column header to sort: Both

☑ Defer index creation until first use

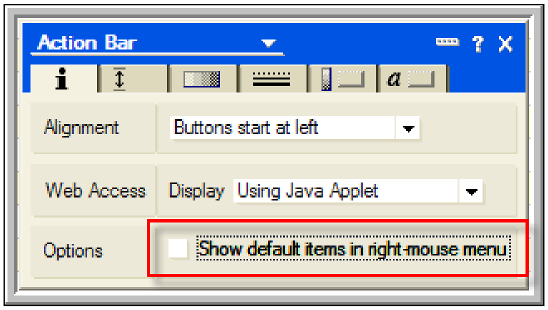
☑ Secondary sort column: Date

Descending

Note that the deferred index creation feature requires the database to be using the new On-Disk Structure (ODS) for Notes/Domino 8. By default, Notes/Domino 8 still creates databases with ODS 43, which was introduced in release 6 and used through releases 7 and 8. To enable the creation of databases in ODS 48 format, use the `notes.ini` parameter, `Create_R8_Databases=1`, on the Domino 8 server or the Notes 8 client.

## Show default items in the right-mouse menu

Developers have been able to add custom actions to the right-mouse menu with previous versions of Notes/Domino. With release 8, you can choose not to have the default right-mouse menu items shown in the menu, allowing just the menu items you select to be displayed. The default is to show just default items. The following screenshot shows that we have deselected the option, allowing only the actions that we select to be shown in the menu. This will make it easier for the end user of the application to find the actions we have defined for the view or folder:


Action Bar
Alignment
Buttons start at left
Web Access
Display
Using Java Applet
Options

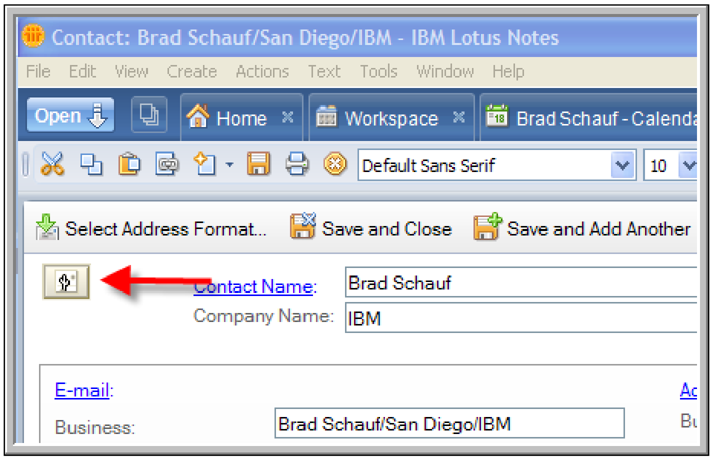
☐ Show default items in right-mouse menu

# Form enhancements

There is a new rich text lite field option that allows you to add a thumbnail picture to a form (see the following screenshot). This new feature is used in the Notes/Domino 8 address book templates.

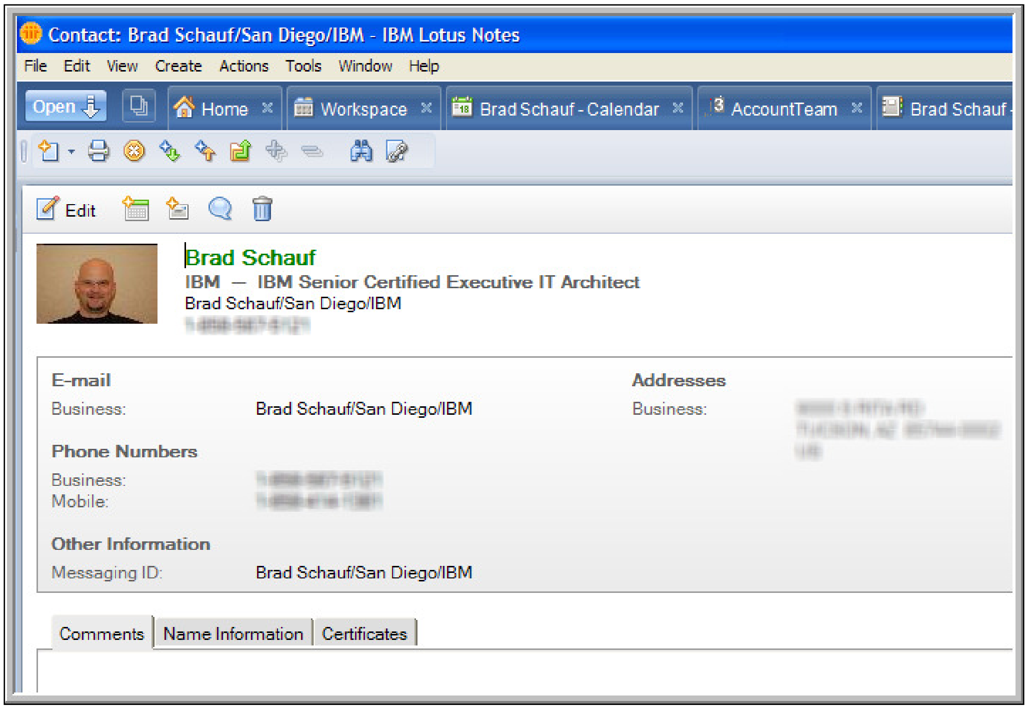
For example, in the personal address book template, you can add pictures of your contacts to their contact records. This is handy to help remember the face that goes with the name.

To add the thumbnail picture to a contact note in Notes 8, edit the contact record, click on the **Import** icon (shown in the following screenshot), and select a picture:


Contact: Brad Schauf/San Diego/IBM - IBM Lotus Notes
File Edit View Create Actions Text Tools Window Help
Open
Home
Workspace
Brad Schauf - Calenda
Default Sans Serif
10
Select Address Format...
Save and Close
Save and Add Another
E-mail:
Ac
Bu

Contact Name: Brad Schauf
Company Name: IBM
Business: Brad Schauf/San Diego/IBM

Once a picture has been selected, it will be displayed in place of the **Import** button, as shown in the following screenshot:


Contact: Brad Schauf/San Diego/IBM - IBM Lotus Notes
File Edit View Create Actions Tools Window Help
Open
Home
Workspace
Brad Schauf - Calendar
AccountTeam
Brad Schauf
Edit
Comments
Name Information
Certificates

Brad Schauf
IBM — IBM Senior Certified Executive IT Architect
Brad Schauf/San Diego/IBM

E-mail
Business: Brad Schauf/San Diego/IBM

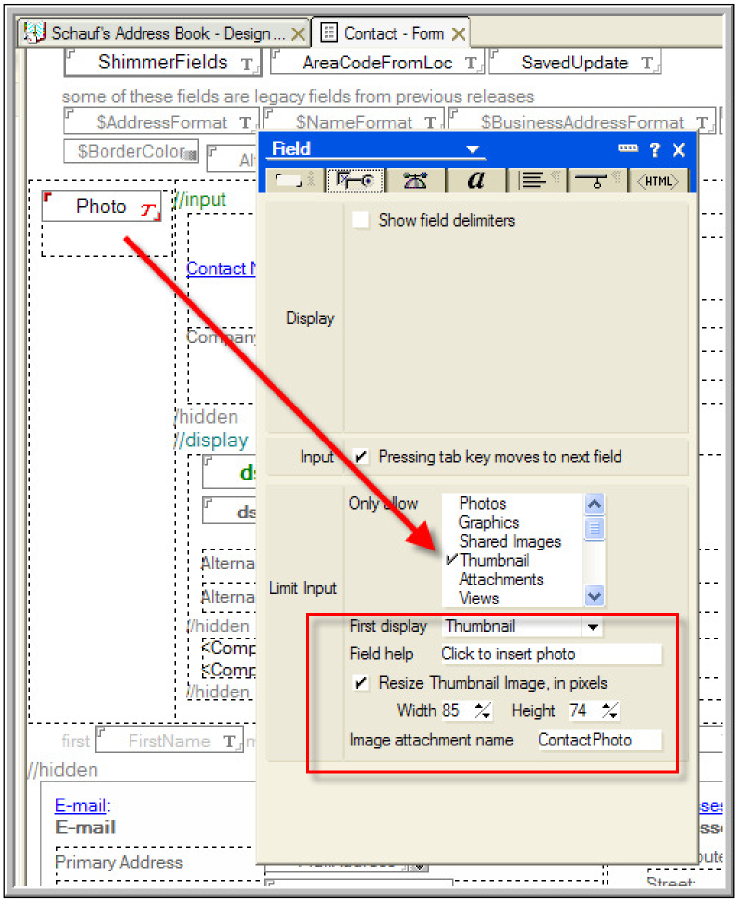
Phone Numbers
Business:
Mobile:

Other Information
Messaging ID: Brad Schauf/San Diego/IBM

Addresses
Business:

To delete the picture, you should edit the record, select the thumbnail, and click on the **Delete** key.

To enable thumbnails in your rich text lite field, select the second tab of the properties box, and then select **Thumbnail** in the **Only allow** selection field. When **Thumbnail** is selected, all of the other options will automatically be deselected for you. Also, you may only select **Thumbnail** in the **First display** property, as shown in the following screenshot:


Schauf's Address Book - Design...
Contact - Form
ShimmerFields
AreaCodeFromLoc
SavedUpdate
some of these fields are legacy fields from previous releases
$AddressFormat
$NameFormat
$BusinessAddressFormat
$BorderColor
Photo
//input
Contact N
Company
//hidden
//display
Alterna
Alterna
//hidden
Comp
Comp
//hidden
first
FirstName
//hidden
E-mail:
E-mail
Primary Address
Field
Display
Input
Limit Input

☐ Show field delimiters

☑ Pressing tab key moves to next field

Only allow: Photos, Graphics, Shared Images, ✓ Thumbnail, Attachments, Views

First display: Thumbnail

Field help: Click to insert photo

☑ Resize Thumbnail Image, in pixels

Width 85 Height 74

Image attachment name: ContactPhoto

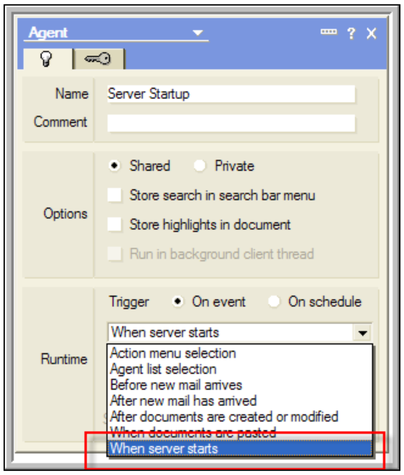
You can also resize the thumbnail image by selecting the width and height in pixels from the **Width** and **Height** fields.

# Agent enhancements

Agents can now be tagged so as to determine when the server starts. These agents will start a few minutes after the Domino server boots up. They should not be relied upon to start immediately.

Agents triggered to start when the server starts will not run when just the agent manager itself is restarted. They will only run when the entire Domino server is started. This allows agents to perform actions that should only occur after a server has started and not be repeated each time the agent manager starts up.

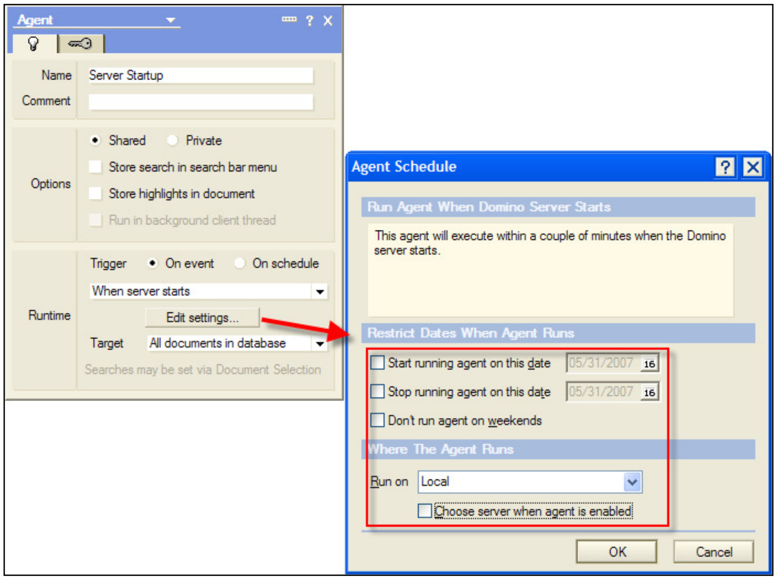
To trigger an agent this way, select **When server starts** for the **On event** trigger type, as shown in the following screenshot:


Agent
Action menu selection
Agent list selection
Before new mail arrives
After new mail has arrived
After documents are created or modified
When documents are pasted
When server starts

Name: Server Startup
Comment:
Options: ● Shared ○ Private
☐ Store search in search bar menu
☐ Store highlights in document
☐ Run in background client thread
Runtime: Trigger ● On event ○ On schedule
When server starts

Agents that are triggered when the server starts can also be given dates to start and stop running. This could be helpful if the agent is implementing a date-driven business process.

To edit these agents' schedule properties, click the **Edit settings** button on the **Agent** properties box. This will open the **Agent Schedule** window, as shown in the following screenshot:


Agent
Edit settings...
Agent Schedule
Run Agent When Domino Server Starts
Restrict Dates When Agent Runs
Where The Agent Runs
OK
Cancel

Name: Server Startup
Comment:
Options: ● Shared ○ Private
☐ Store search in search bar menu
☐ Store highlights in document
☐ Run in background client thread
Runtime: Trigger ● On event ○ On schedule
When server starts
Target: All documents in database
Searches may be set via Document Selection

This agent will execute within a couple of minutes when the Domino server starts.

☐ Start running agent on this date 05/31/2007
☐ Stop running agent on this date 05/31/2007
☐ Don't run agent on weekends
Run on: Local
☐ Choose server when agent is enabled

# Formula language and LotusScript additions

Domino Designer 8 includes several enhancements to formula language and LotusScript.

## Formula language additions

The following are some selected new commands that are available within Notes/Domino 8:

- `@Command([CopySelectedAsTable])`: This new command performs the same action as its menu command counterpart ( **Edit | Copy As | Table**) which copies one or more selected view entries into a table. It places the table of the selected view entries on the clipboard. It also includes a link to each of the documents in the table. This is very useful when sending co-workers links to documents from a database in a preformatted table.
- `@Command([OpenInNewWindow])`: This new command allows your formula language code to open a document from a view, folder, or calendar in a new window instead of opening it within a new tab within Lotus Notes.

## LotusScript additions

The following are some selected new classes, methods, and events available within Notes/Domino 8.

- The `NotesProperty` and `NotesPropertyBroker` classes, and the `Onselect` event were added to support the new composite application programming model.
- `MarkAllRead` and `MarkAllUnread` methods—Within the `NotesView`, `NotesViewEntryCollection`, and `NotesViewNavigator` classes, two new methods dealing with read/unread marks are available. Using these classes, you can mark documents as having been read or unread using the `MarkAllRead` or `MarkAllUnread` methods. These methods will affect the documents within the collection or navigator. There are, of course, Java counterparts available.
- `NotesDirectory` class—Objects created with this new class correspond to the directories on a specific Domino server or Notes client. The objects are contained within a `NotesSession` object, and they contain one or more `NotesDirectoryNavigator` objects.

The following table displays properties that are available in the `NotesDirectory` class. Unless otherwise specified, these properties are read-only:

| **Property** | **Type** | **Description** |
|---|---|---|
| `AvailableItems` | Variant array | This property is set by the methods `LookupNames` and `LookupAllNames`. If a `NotesDirectory` object has been created but no lookups have been performed with it, this property will have a `null` value. |
| `AvailableNames` | Variant array | This property will contain the names returned from the most recent `LookupAllNames` or `LookupNames` call. If a `NotesDirectory` object has been created but no lookups have been performed with it, this property will have a `null` value. |
| `AvailableView` | `String` | This property contains the name of the view specified in the most recent `LookupAllNames` or `LookupNames` call. If a `NotesDirectory` object has been created but no lookups have been performed with it, this property will have a `null` value. |
| `GroupAuthorizationOnly` | `Boolean` | This is a read/write property. This property controls which directories will be used during lookups. If the property is `True`, only the directories marked **Enable for Group Authorization** will be searched. If set to `False`, the default lookups performed will search all directories available. |
| `LimitMatches` | `Boolean` | This is a read/write property. If `True`, directory lookups will be limited to fifty entries. If `False` then lookups performed will return all matches. |
| `PartialMatches` | `Boolean` | Controls whether or not lookups will match on partial names. If `True`, partial names will match. If `False`, the default, lookups will not match on partial names. |

| **Property** | **Type** | **Description** |
|---|---|---|
| `SearchAllDirectories` | `Boolean` | This is a read/write property. If `True`, the default, all directories will be searched during lookups. If `False`, lookups will cease after the first directory containing the view name specified. |
| `Server` | `String` | This property contains the name of the server represented by the instance of `NotesDirectory`. |
| `TrustedOnly` | `Boolean` | This is a read/write property. This property controls which directories will be used during lookups. If `True`, lookups will search only directories which contain trust information. If `False` (default) the lookups will search all directories. |
| `UseContextServer` | `Boolean` | This is a read/write property. This property controls whether the server of the context database or the server specified in the lookup methods will be used. If `True`, the server context database will be used. If `False`, the default, and then the server specified in the lookup method, will be used. |

The following table displays the methods that are available for the `NotesDirectory` class:

| **Method** | **Returns** | **Description** |
|---|---|---|
| `CreateNavigator` | `NotesDirectoryNavigator` | Used to create additional `DirectoryNavigators` to allow multiple `DirectoryNavigators` to be used. |
| `FreeLookupBuffer` | `N/A` | As the resultant name lookup buffers can be quite large, this method can be used to free memory in the current lookup buffer, in effect resetting all navigators. Used for memory management. |
| `LookupAllNames` | `NotesDirectoryNavigator` | Performs a lookup of designated items contained within the specified view. |
| `LookupNames` | `NotesDirectoryNavigator` | Performs a lookup of designated items contained within the specified view for the specified items. |

`NotesDirectoryNavigator` objects are returned by methods of the `NotesDirectory` class and allow the developer to navigate the items returned by a directory search.

The following table displays properties that are available for the `NotesDirectoryNavigator` class. Unless otherwise specified, these properties are read-only:

| **Property** | **Type** | **Description** |
|---|---|---|
| `CurrentItem` | `String` | This property will contain the current item for the `NotesDirectoryNavigator` and is updated with subsequent calls of `GetNextItemValue` and `GetNthItemValue` methods. |
| `CurrentMatch` | `Long` | An index to the current match for the `NotesDirectoryNavigator` and is updated by subsequent calls to `FindFirstMatch`, `FindNextMatch` and `FindNthMatch` methods. |

| Property | Type | Description |
|---|---|---|
| `CurrentName` | `String` | The name of the current match indicated by the `CurrentMatch` property index for `NotesDirectoryNavigators` created with the `LookupNames` method. |
| `CurrentView` | `String` | Contains the name of the directory view used to create the `NotesDirectoryNavigator` object. This property is updated when directory lookups are performed. |
| `MatchLocated` | `Boolean` | If set to `True`, a match was successful. If set to `False`, the match was not successful. |
| `NameLocated`. | `Boolean` | If set to `True`, a name was located. If set to `False`, the name was not located. |

The following table displays the methods available for the `NotesDirectoryNavigator` class:

| Method | Returns | Description |
|---|---|---|
| `FindFirstMatch` | `Boolean` | Moves the navigator of the first match of the current name in the `NotesDirectoryNavigator`. Returns `True` if a match was found, otherwise returns `False` indicating no match was found. |
| `FindNextMatch` | `Boolean` | Moves the navigator of the next match of the current name in the `NotesDirectoryNavigator`. Returns `True` if a match was found, otherwise returns `False` indicating no match was found. |
| `FindNthMatch` | `Boolean` | Moves the navigator of the *nth* match of the current name in the `NotesDirectoryNavigator`. Returns `True` if a match was found, otherwise returns `False` indicating no match was found. |

| Method | Returns | Description |
|---|---|---|
| `FindFirstName` | `Long` | Moves the navigator to the first name in the `NotesDirectoryNavigator` returning the number of matches found. |
| `FindNextName` | `Long` | Moves the navigator to the next name in the `NotesDirectoryNavigator` returning the number of matches found. |
| `FindNthName` | `Long` | Moves the navigator to the *nth* name in the `NotesDirectoryNavigator` returning the number of matches found. |
| `GetFirstItemValue` | `Variant` | Returns the value of the first item of the current match. |
| `GetNextItemValue` | `Variant` | Moves the navigator to the next item within the current match and returns the value of that match. |
| `GetNthItemValue` | `Variant` | Moves the navigator to the *nth* item within the current match and returns the value of that match. |

`The NotesProperty` class represents a single component property within the composite application. Component properties are data items that a given component produces and the `NotesProperty` class allows your application to manage the publishing of the defined properties within an application.

The methods for the `NotesProperty` class are only active when used within the Notes 8 Standard configuration. They are not available when used by applications running on the Domino server or from within the Notes 8 Basic configuration.

The following table displays the properties that are available for the `NotesProperty` class. Unless otherwise specified, the properties are read-only:

| **Property** | **Type** | **Description** |
|---|---|---|
| `Description` | `String` | This class property returns the description for the `NotesProperty` object. |
| `IsInput` | `Boolean` | If set to `True`, the property is an input property. If set to `False`, the property is an output property. |
| `Name` | `String` | This class property returns the name of the `NotesProperty`. |
| `NameSpace` | `String` | This class property returns the namespace for the `NotesProperties` data type. |
| `Title` | `String` | This class property returns the title of the `NotesProperty`. |
| `TypeName` | `String` | This class property returns the type name of the `NotesProperty`. When combined with the `NameSpace` property, it provides a unique identifier for the `NotesProperty` type. |
| `Values` | Variant array of `Strings`, `Integer`, `Real`, or `NotesDateTime` | This read/write class property sets or returns the array of values for the `NotesProperty`. The array items must be of all the same data type and input properties by definition cannot be set using this property. The `Publish` method must be called after using this property to set values or the values will not persist. |

The following table displays the methods that are available for the `NotesProperty` class:

| **Method** | **Returns** | **Description** |
|---|---|---|
| `Clear` | N/A | For output properties only, this method clears the new or modified values of the specified property from the temporary cache used for publishing via the property broker. If called from an input type `NotesProperty` the method will have no effect. |
| `Publish` | N/A | Publishes to the property broker the new values for the `NotesProperty` object. |

The following table displays which properties are available for the `NotesPropertyBroker` class. This is where all the composite application magic occurs in Notes/Domino 8. Unless otherwise specified, the properties are read-only. The current implementation of the property broker for Notes/Domino 8 only supports a single input property. The `InputPropertyContext` is, however, declared as an array to allow for future expansion of the property broker to support multiple input properties in the future:

| Property | Type | Description |
|---|---|---|
| `InputPropertyContext` | Array of `NotesProperty` | Returns an array of `NotesProperty` objects, with only the first item of the array populated. |

The methods for the `NotesPropertyBroker` class are only active when used within the Notes 8 Standard configuration. They are not available when used by applications running on Domino server or from within the Notes 8 Basic configuration.

The following table displays the methods that are available for the `NotesPropertyBroker` class:

| Method | Returns | Description |
|---|---|---|
| `ClearProperty` | N/A | Clears the new or modified values of a specified property from the temporary cache used for publishing. |
| `GetProperty` | `NotesProperty` | Returns a `NotesProperty` object for a specified property. |
| `GetPropertyValue` | Variant array of `String`, `Integer`, `Real`, or `NotesDateTime` | Returns the value of a specified input property. Used when implementing an action. |
| `HasProperty` | `Boolean` | If set to `True`, the specified property is associated with the property broker. If `False`, the property broker does not have a property with the specified name. |
| `Publish` | N/A | If values of the `NotesPropertyBroker` have been modified, this method will publish them. |
| `SetPropertyValue` | `NotesProperty` | Returns a `NotesProperty` object with the value of a specified output property. |

The `Onselect` event was added to the `NotesUIView` class to give developers the trigger needed to have other components respond to selected documents within a view. The `Onselect` event is used to contain code that publishes properties to the property broker based on the documents selected.

# New Lotus Domino Designer 8.5 client features

In this section, we will explore the new features in Domino Designer 8.5. There are many exciting changes and additions to Domino Designer 8.5. The first feature we will cover is the introduction of the Eclipse-based integrated development environment. Domino Designer 8.5, which is also known as **Domino Designer on Eclipse** (**DDE**), takes advantage of Eclipse technology to deliver a more powerful developer environment. The look and feel is more consistent with Notes client version 8.x, with the features and flexibility one would expect of an Eclipse-based IDE. The new UI will be examined at a high level. The next major feature addition that will be covered is XPages. XPages are a new type of design element being introduced in the 8.5 release that will revolutionize Domino Web Applications. XPages enable application developers to quickly and easily create rich Domino web applications with a Web 2.0 look and feel. Finally, we will review improvements to CSS support, enhancements to HTML generation, JavaScript controls, a new method related to ID Vault called `ResetUserPassword` and changes to web services.

# Domino Designer on Eclipse

Now in 8.5, the Domino Designer client is based on Eclipse, as the Notes client was in 8.x. Eclipse is an award-winning, open source platform for the construction of powerful software development tools and rich desktop applications. For more information on Eclipse, visit the following URL:

`http://www.eclipse.org/`

This architectural change allows the new designer client to become an open source pluggable environment. By allowing the use of plugins, objects can be built, re-used, and shared.

Some of the differences in the new 8.5 Designer client can be seen when examining the processes associated with Domino Designer. It is useful to know how they relate to one another and what component each controls. Prior to release, 8.5 designer clients, when you launched `designer.exe`, `nlnotes.exe` would be spawned. This is the process for the releases prior to 8.5 Domino Designer.

Now, in the 8.5 Designer client, `designer.exe` loads and spawns `nlnotes.exe`.

> On faster machines, `designer.exe` shows up briefly, and may not be seen at all.

Then the `notes2.exe` process spawns and `designer.exe` quits.

> `notes2.exe` is the Java process that corresponds to the Eclipse shell.

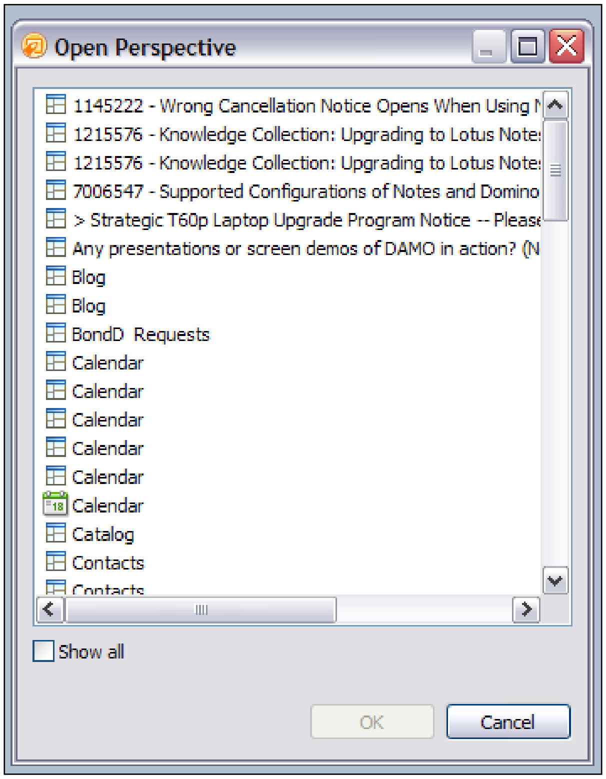
Finally, `nlnotes.exe` spawns `ntaskldr.exe` after Domino Designer on Eclipse (DDE) opens.

Some other things you may notice is that it takes longer to launch and exit DDE than in previous versions. This is due to the Eclipse startup and shutdown sequences. This can lead to problems on exit or launch. If you experience a problem with launch or exit, it may be due to one of the following issues. Due to the longer exit time, the user may have initiated the launch before all prior processes had been killed, or the user may have initiated the launch sequence multiple times. It is also possible that, on prior exit, the client did not shut down all processes.

With a few exceptions, the launch process will be able to compensate for these errors. However, if you still can't launch or exit the 8.5 designer client, you can manually kill the `nlnotes.exe` and `notes2.exe` processes with the task manager, or if the client still will not launch or exit, log out of the system to completely kill all process threads.

## The new Eclipse-based GUI

Now that the 8.5 Designer client is Eclipse based, there is a new GUI. The default perspective in 8.5 is the Domino Designer perspective. A perspective contains editors and views specific to that task. There are other perspectives available in Domino Designer 8.5, each suited to a particular task. You can select a different perspective from the menu, by selecting **Window** | **Open Perspective** | **Other**, as seen in the following screenshot:



1145222 - Wrong Cancellation Notice Opens When Using
1215576 - Knowledge Collection: Upgrading to Lotus Note
1215576 - Knowledge Collection: Upgrading to Lotus Note
7006547 - Supported Configurations of Notes and Domino
> Strategic T60p Laptop Upgrade Program Notice -- Pleas
Any presentations or screen demos of DAMO in action? (N
Blog
Blog
BondD Requests
Calendar
Calendar
Calendar
Calendar
Calendar
Calendar
Catalog
Contacts
Contacts

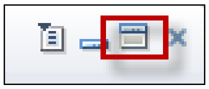
☐ Show all

[ Not all perspectives have a corresponding layout in the GUI. ]

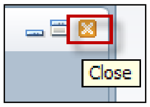
Perspectives can be customized to suit individual preferences. One way is by resizing the views and editors.

You can resize views and editors in two ways. They are as follows:

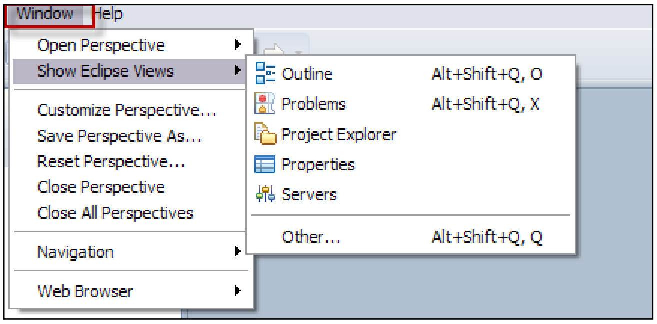
- Click the **Maximize/Restore** button located in the title bar of the view or editor, as shown in the screenshot that follows
- Click and drag the border of a view or editor



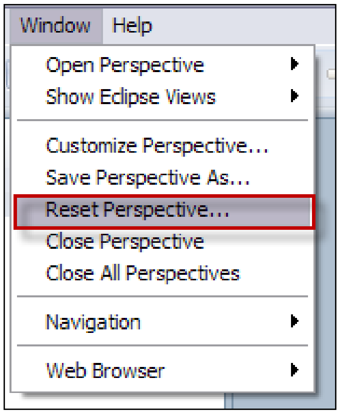
Views and editors can also be hidden by clicking on the **Close** button:



In the menu, select **Window** | **Show Eclipse Views** to re-open closed views (as shown in the following screenshot). You can use this menu to open any Eclipse view, including those from other perspectives:


Window
Help
Open Perspective
Show Eclipse Views
Customize Perspective...
Save Perspective As...
Reset Perspective...
Close Perspective
Close All Perspectives
Navigation
Web Browser
Outline Alt+Shift+Q, O
Problems Alt+Shift+Q, X
Project Explorer
Properties
Servers
Other... Alt+Shift+Q, Q

To return to the current perspective's default layout, select **Window** | **Reset Perspective...**:


Window
Help
Open Perspective
Show Eclipse Views
Customize Perspective...
Save Perspective As...
Reset Perspective...
Close Perspective
Close All Perspectives
Navigation
Web Browser

# XPages

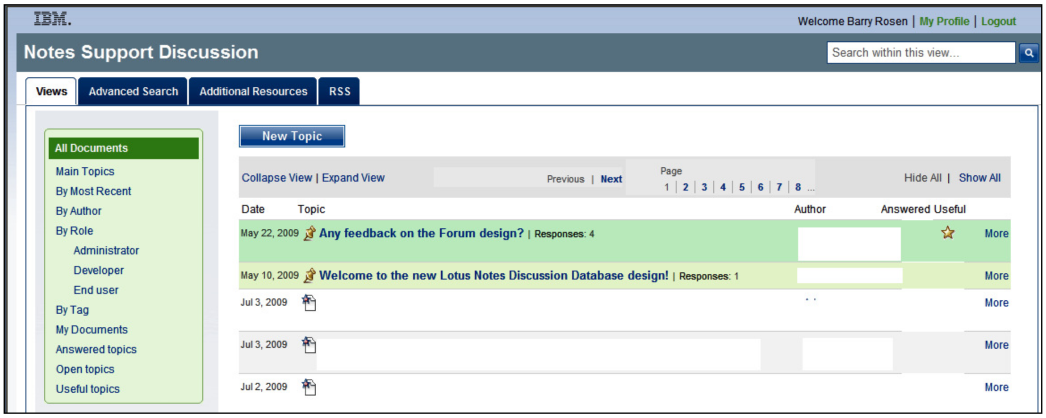
For a while now, it has been difficult to create elegant web applications for Notes/Domino. XPages are a new type of design element being introduced in the Notes Domino 8.5 release, that will allow application developers to quickly and easily create rich Domino web applications with a Web 2.0 look and feel.

Applications built using XPages are supported for web use only, for the 8.5 release. Starting in Lotus Notes 8.5.1, XPages are also supported on the client. To enhance the appearance and functionality for web use, existing applications can be extended to utilize XPages. The standard design elements must be included in the database for use in the Notes client and the application. If a new application is targeted for both the Notes client and web users, then you can also include XPages for use on the Web.

XPages are built on top of **Java Server Faces** (**JSF**). XPages also have built-in AJAX support, which allows application developers to take advantage of AJAX features such as type-ahead and partial page refresh. They are created in pure XML markup. When the application developer adds controls to XPages using drag and drop, the XML is generated automatically.

XPages do not require any additional steps to install on a Domino server. When you create a new XPage in an application, you start with a blank page similar to what you see when a new form or page is created. You then build the XPage by dragging and dropping controls onto the XPage to add functionality. A wide range of controls are available out of the box, which enables application developers to quickly and easily get a web application up and running. Some examples of the controls available are a pager, rich text editor, date picker, tabbed panel, and many more. Controls can also be combined into a single object, called a custom control. Custom controls are similar to subforms, as they can be used in other XPages in the current application, or copied into other applications for reuse. Just like with subforms, if a change is made to a custom control in an application, that change is propagated out to all other instances of that custom control in that application.

There is a default system template in the 8.5 release that uses XPages. The discussion template has been enhanced to include XPages in 8.5:


IBM.
Welcome Barry Rosen | My Profile | Logout
Notes Support Discussion
Search within this view...
Views
Advanced Search
Additional Resources
RSS
All Documents
Main Topics
By Most Recent
By Author
By Role
Administrator
Developer
End user
By Tag
My Documents
Answered topics
Open topics
Useful topics
New Topic
Collapse View | Expand View
Previous | Next
Page
1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 ...
Hide All | Show All
Date
Topic
Author
Answered Useful
More

May 22, 2009 Any feedback on the Forum design? | Responses: 4

May 10, 2009 Welcome to the new Lotus Notes Discussion Database design! | Responses: 1

Jul 3, 2009

Jul 3, 2009

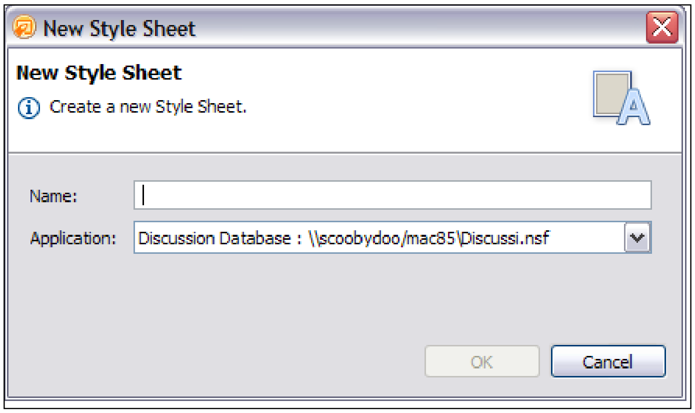
Jul 2, 2009

## Improvements to Cascading Style Sheets (CSS) support

In Domino Designer 8.5, you can edit and create CSS. Previously, you would have had to use an external editor to do this. Not only can you create custom stylesheets, but you can import existing ones. You can also group your favorite stylesheets and script resources into a theme to provide a common look and feel in your application and map style classes to UI controls. This will save developer time and effort when adding CSS to applications.

To create a new stylesheet, go to **File** | **New** | **Style Sheet Resource** from the main Eclipse menu. In the **New Style Sheet** dialog box, do the following:

1. In the **Name** field, type the name of the stylesheet, as shown in the following screenshot:



Application: Discussion Database : \\scoobydoo/mac85\Discussi.nf

By default, Domino Designer adds a CSS file extension to this name.

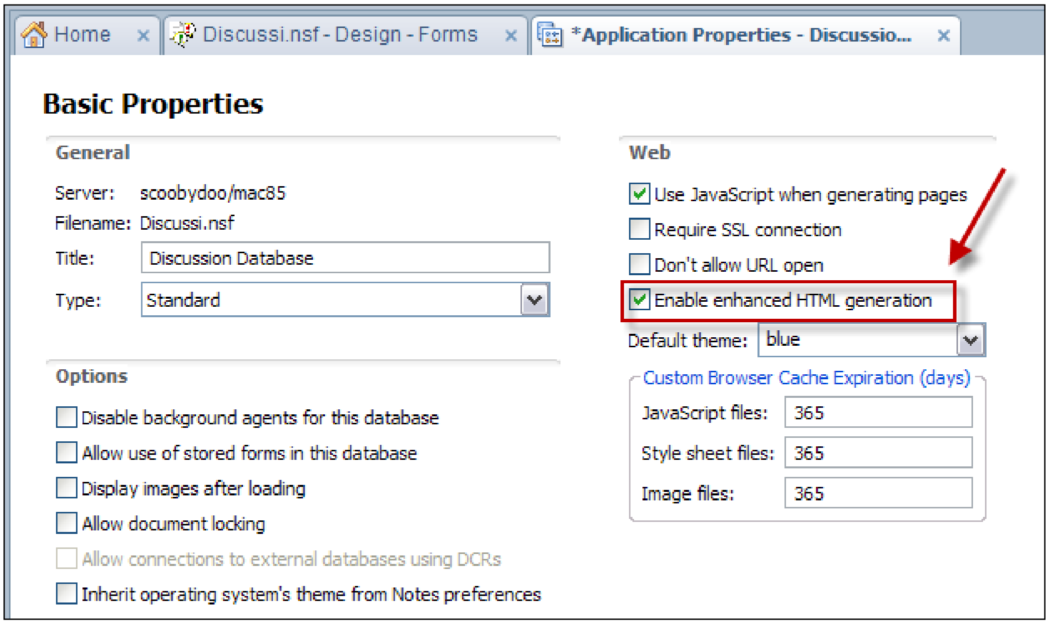
2. In the **Application** field, select an application for the stylesheet. Click on the **OK** button.

Another method of creating a stylesheet, is by double-clicking on **Style Sheets** under **Resources** in the **Applications Navigator** and then clicking on the **New Style Sheet** in the editor.

## Enhancements to HTML generation

With the 8.5 Domino Designer, the new enhanced HTML-generation option can be used to leverage a CSS, via a theme, to enhance the look and feel of a traditional Notes application. There is limited support for this functionality in XPages themes. One function that is supported is that HTML pages will include references to the text/CSS resources defined in the theme. Another functionality that is supported is that the body control style property (as defined in the theme) is included in the body tag class attribute. What is not supported is the ability to search for theme design notes beyond the current database or theme inheritance.

To enable this functionality, select the database and go to **Design** | **Design properties**. Go to the **Web** access section of the **Database** properties box and select **Enable enhanced HTML generation**:


Home
Discussi.nsf - Design - Forms
*Application Properties - Discussio...

**Basic Properties**

**General**

Server: scoobydoo/mac85
Filename: Discussi.nsf
Title: Discussion Database
Type: Standard

**Options**

- ☐ Disable background agents for this database
- ☐ Allow use of stored forms in this database
- ☐ Display images after loading
- ☐ Allow document locking
- ☐ Allow connections to external databases using DCRs
- ☐ Inherit operating system's theme from Notes preferences

**Web**

- ☑ Use JavaScript when generating pages
- ☐ Require SSL connection
- ☐ Don't allow URL open
- ☑ Enable enhanced HTML generation

Default theme: blue

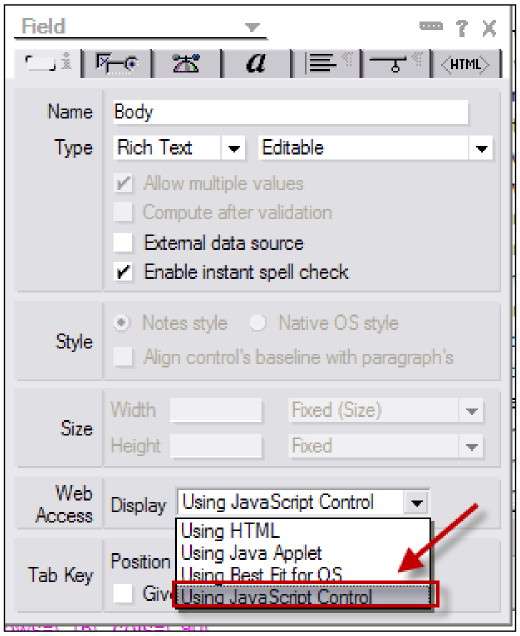
Custom Browser Cache Expiration (days)

JavaScript files: 365
Style sheet files: 365
Image files: 365

## JavaScript controls

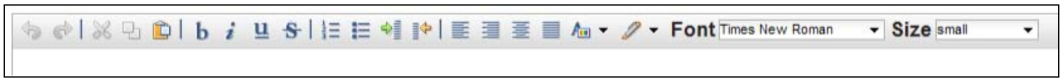
The JavaScript control enhancements in Domino Designer 8.5 focus on the controls for the rich text fields on the Web. Starting in 8.5, you can enable the display of rich text on the Web as a Dojo-based JavaScript control. The **Dojo Toolkit** is an open source modular JavaScript toolkit designed to ease the rapid development of cross platform, JavaScript/AJAX-based applications and websites. The Dojo-based mechanism uses standard HTML and CSS, so the benefits are similar to using an applet.

To use this new option, go to **Comment** a rich text field and choose **Design** | **Field Properties**. On the **Info** tab, for **Web Access** select **Using JavaScript Control**:



Name: Body
Type: Rich Text, Editable
☑ Allow multiple values
☐ Compute after validation
☐ External data source
☑ Enable instant spell check
Style: ● Notes style ○ Native OS style
☐ Align control's baseline with paragraph's
Size: Width, Fixed (Size); Height, Fixed
Web Access: Display: Using JavaScript Control
Tab Key: Position

The following screenshot is of the Rich Text Editor with this option selected:



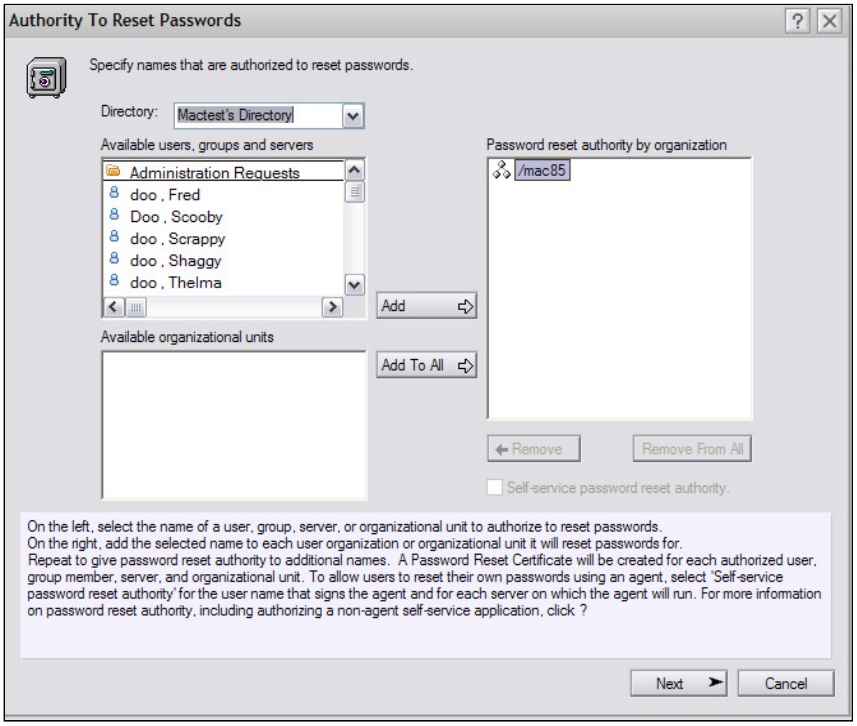
Using the JavaScript control, these are now available options for editing, redo, strike through, changing the foreground color, and changing the background color. Table operations, such as delete row, add row, and so on, are not available when using the JavaScript control, but are available when using the preview setting.

## New methods related to ID Vault—ResetUserPassword

There is a feature introduced in Notes/Domino 8.5 that allows Domino administrators to manage users' ID files with less effort, called the ID Vault. You can read more about this feature in *Chapter 6*, *Domino 8.5.3 Enhancements*. In Lotus Notes Domino 8.5, a new method was added, called `ResetUserPassword`. This new method allows you to leverage the ID Vault feature in custom applications. It can be used to reset the password and download count on an ID file stored in the ID Vault and to set both the password and download count. Using this method, a developer is able to design an application for the help desk to perform password resets, or a self-serve application that end users can access to reset their passwords.

Lotus Notes Domino 8.5 comes with a sample self-service application, called `PwdResetSample.nsf`, which uses the new method in a LotusScript agent that you can customize for your needs. In order to run this method from a LotusScript agent or Java agent, you must provide password reset authority with the "Self-service password reset authority" flag to a user identity that has signed the agent. It is recommended that one is registered specifically for this purpose. The server on which you deploy the agent must also have this authority and must give the agent signer Run restricted LotusScript/Java agents access. You must provide password reset authority with the "Self-service password reset authority" flag to the user or server identity under which the application is authorized to run, when the `ResetUserPassword` method is used in a non-agent application. To set the access, switch to the **Configuration** tab in the Administrator client and select your ID Vault under **Security** | **ID Vault**. Then go to **Tools** | **ID Vaults** | **Authority to Reset Passwords**.

Set both the Vault Administrator (your Server Administrator) and your Domino Server as self-service password reset authorities:


Authority To Reset Passwords
Specify names that are authorized to reset passwords.
Directory:
Mactest's Directory
Available users, groups and servers
Administration Requests
doo , Fred
Doo , Scooby
doo , Scrappy
doo , Shaggy
doo , Thelma
Add
Available organizational units
Add To All
Password reset authority by organization
/mac85
Remove
Remove From All
☐ Self-service password reset authority.
Next
Cancel

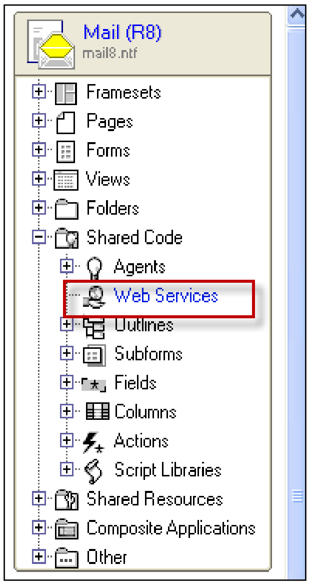
On the left, select the name of a user, group, server, or organizational unit to authorize to reset passwords.
On the right, add the selected name to each user organization or organizational unit it will reset passwords for.
Repeat to give password reset authority to additional names. A Password Reset Certificate will be created for each authorized user, group member, server, and organizational unit. To allow users to reset their own passwords using an agent, select 'Self-service password reset authority' for the user name that signs the agent and for each server on which the agent will run. For more information on password reset authority, including authorizing a non-agent self-service application, click ?

> Make sure that both your Vault administrator and your Domino server have been configured as self-service password reset authorities. If they are not, you will receive the following error on the server console:
>
> **HTTP Server: Agent 'User Password Reset' Missing or invalid Password Reset Trust certificate**

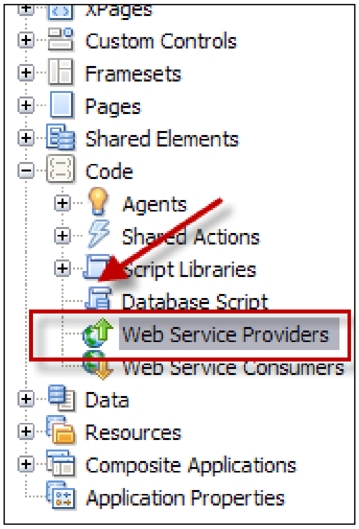
## Changes to web services

Prior to Domino 8.5, Web Services were treated as a single entity. In Domino 8.5, web services are differentiated between two entities, web service providers and web service consumers. While the categorization and handling has changed a bit, the underlying data is backward compatible. Any web services that you created in a previous version will be displayed as a web service provider in Domino 8.5. In Domino Designer 8.5, a fundamental shift in object creation has occurred. To create an object, a name for the object is now required. The object is then saved in the application as soon as it is created and displayed back to the user.

In previous versions of Domino Designer, web services looked something like what is shown in the following example from Domino Designer 8.0.1. The following screenshot shows where **Web Services** in the **Shared Code** folder of a database can be located:


Mail (R8)
mail8.ntf
Framesets
Pages
Forms
Views
Folders
Shared Code
Agents
Web Services
Outlines
Subforms
Fields
Columns
Actions
Script Libraries
Shared Resources
Composite Applications
Other

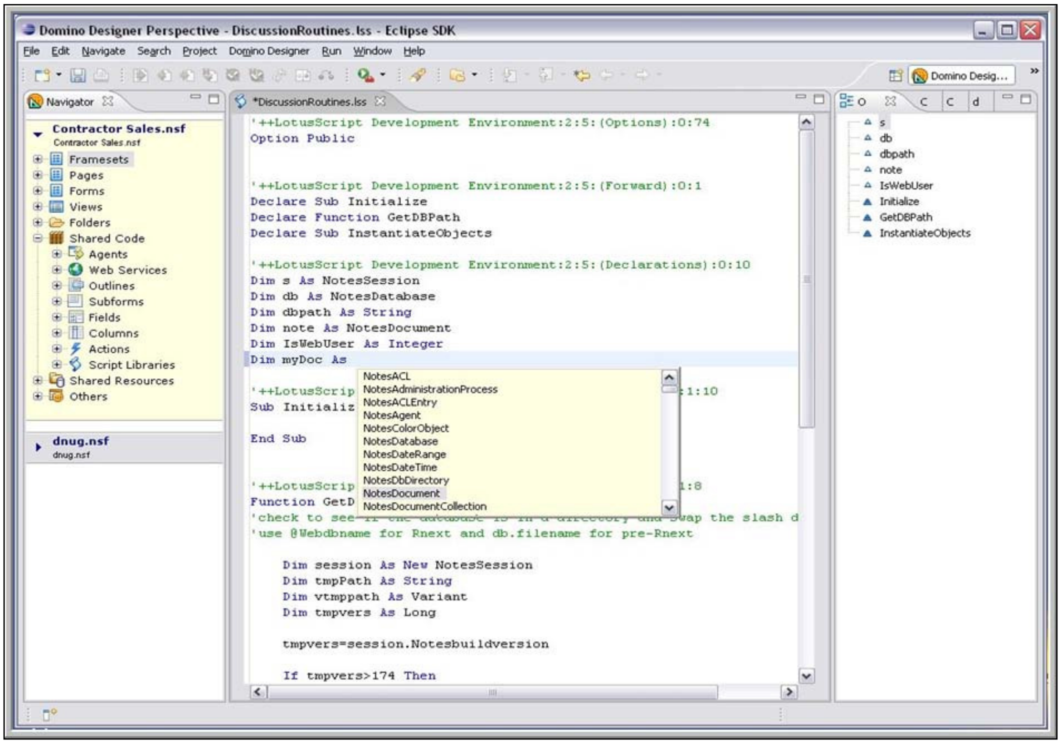
In Domino Designer 8.5, **Web Service Providers** and **Web Service Consumers** items are now found under the **Code** folder. Selecting the **Web Service Providers** item in the navigator brings up the **Web Service Providers** list as shown in the following screenshot:


XPages
Custom Controls
Framesets
Pages
Shared Elements
Code
Agents
Shared Actions
Script Libraries
Database Script
Web Service Providers
Web Service Consumers
Data
Resources
Composite Applications
Application Properties

## What's ahead?

As you know, Domino Designer is used to create Notes/Domino applications. You have seen how it can be used to take a Notes application and build components from the various Notes/Domino design elements using the Property Broker Editor and the Composite Application Editor, and new integration points with actions and view columns.

Future plans for Domino Designer may include merging it with Lotus Component Designer within an Eclipse framework, bringing the two designer tools together into an integrated development framework for Lotus applications. All development will be performed within the Eclipse environment with new script editors and shared design element bookmark navigation:


Domino Designer Perspective - DiscussionRoutines.lss - Eclipse SDK
File Edit Navigate Search Project Domino Designer Run Window Help
Domino Desig...
Navigator
Contractor Sales.nsf
Contractor Sales.nsf
Framesets
Pages
Forms
Views
Folders
Shared Code
Agents
Web Services
Outlines
Subforms
Fields
Columns
Actions
Script Libraries
Shared Resources
Others
dnug.nsf
dnug.nsf
*DiscussionRoutines.lss
o
c
c
d
s
db
dbpath
note
IsWebUser
Initialize
GetDBPath
InstantiateObjects
NotesACL
NotesAdministrationProcess
NotesACLEntry
NotesAgent
NotesColorObject
NotesDatabase
NotesDateRange
NotesDateTime
NotesDbDirectory
NotesDocument
NotesDocumentCollection

```
'++LotusScript Development Environment:2:5:(Options):0:74
Option Public


'++LotusScript Development Environment:2:5:(Forward):0:1
Declare Sub Initialize
Declare Function GetDBPath
Declare Sub InstantiateObjects

'++LotusScript Development Environment:2:5:(Declarations):0:10
Dim s As NotesSession
Dim db As NotesDatabase
Dim dbpath As String
Dim note As NotesDocument
Dim IsWebUser As Integer
Dim myDoc As

'++LotusScrip                                        :1:10
Sub Initializ

End Sub


'++LotusScrip                                        1:8
Function GetD
'check to see                                   wap the slash d
'use @Webdbname for Rnext and db.filename for pre-Rnext

    Dim session As New NotesSession
    Dim tmpPath As String
    Dim vtmppath As Variant
    Dim tmpvers As Long

    tmpvers=session.Notesbuildversion

    If tmpvers>174 Then
```

Bringing these multiple development tools under a single designer framework will make the developer's job easier by offering them a consolidated view of the development process.

# New Lotus Domino Designer 8.5.1 client features

Perhaps the biggest news in Lotus Domino Designer 8.5.1 was the announcement that the 8.5.1 Domino Designer Client was a free download. This marked the focus on Domino as a **Rapid Application Development** (**RAD**) platform. Additional features include XPages updates.

## XPages updates

The Notes client can now run XPages. This means that all of the benefits and features that were previously only available to browser users, are now available to the Notes client as well. This allows users to have the same experience in the application when accessing it from either a browser or a client. This also streamlines development effort as the application only needs to be created once for all end users regardless of how they access the application. The end user does not need to have the Designer client to run XPages.

You can now take XPages applications offline. Existing applications can be taken offline by creating a local replica and enabling the XPages client launch option via a Designer property sheet or the client's InfoBox.

# New Lotus Domino Designer 8.5.2 client features

One of the most requested changes made its way into Lotus Domino Designer 8.5.2 in the form of application icons. Application icons had been stuck in the past due to limitations of 16 colors. Now, you can still use the familiar 16 color icon editor, or choose a PNG, GIF, JPEG, or BMP image file for better quality images. Lotus Domino Designer 8.5.2 also provides a single editor that centralizes management of the application icons. Additional features include the following:

- Lotus Domino Designer enhancements
- Lotus Domino Designer Eclipse framework enhancements

## Lotus Domino Designer enhancements

Starting in Lotus Domino Designer 8.5.2, you can now reorder fields when dropping them from the palette. Drag-and-drop can also be performed from palettes when in source mode. Check Box Group and Radio Button Group controls have been added to the Controls palette. Their properties can be set after adding an XPage, using the properties view. A designer now has more control over windowing behavior. You can choose to open elements in a new window or reuse the same tab.

The following are the supported Notes agent methods. These methods allow XPages to run an agent on a notes client:

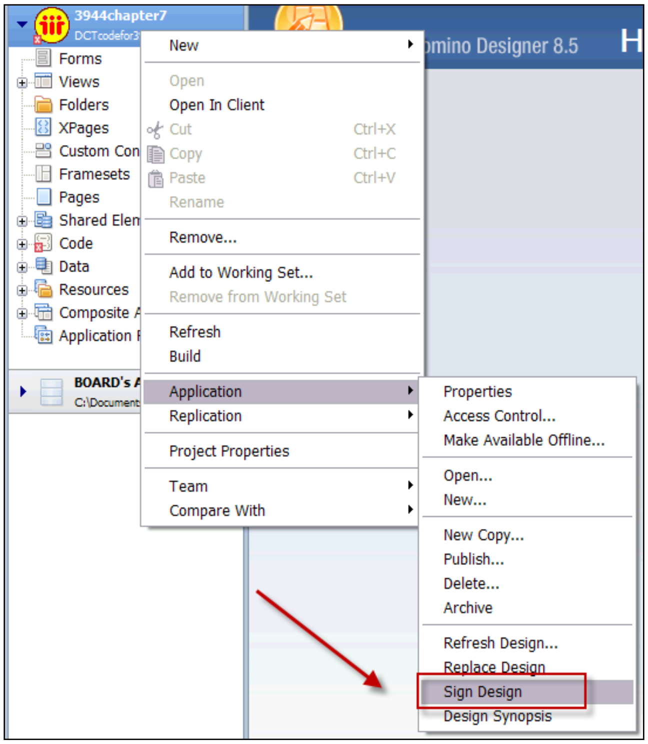
- `NotesAgent.runOnServer`
- `NotesAgent.run`
- `NotesAgent.runWithDocumentContext(NotesDocument)`

In Lotus Domino 8.5.2, Dojo was upgraded to 1.4.1. The Dojo files are under `domino\js\dojo-1.4.1` in the Notes data directory. Dojo widgets can be used in a variety of controls.

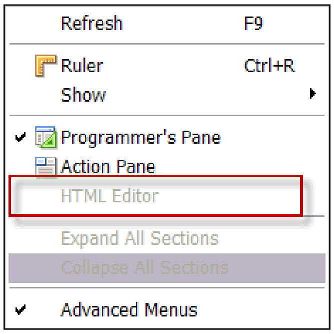
Server-side JavaScript global objects now has a new way to create a session called `sessionAsSigner()`. This will allow you to simultaneously have code that runs with the permissions of the signer of the XPage design element as well as code that runs with the permissions of the current user. Database scripts are now supported in the LotusScript editor in Eclipse. You can also define database scripts as `@<formula>`.

## Lotus Domino Designer Eclipse framework enhancements

Design notes can now be signed in your application directly in Designer. To do this right-click on the application and go to Application | Sign Design:


3944chapter7
DCTcodefor3
Forms
Views
Folders
XPages
Custom Con
Framesets
Pages
Shared Elen
Code
Data
Resources
Composite A
Application I
BOARD's A
C:\Document
omino Designer 8.5
New
Open
Open In Client
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Rename
Remove...
Add to Working Set...
Remove from Working Set
Refresh
Build
Application
Replication
Project Properties
Team
Compare With
Properties
Access Control...
Make Available Offline...
Open...
New...
New Copy...
Publish...
Delete...
Archive
Refresh Design...
Replace Design
Sign Design
Design Synopsis

Passthru HTML on a form/page can be edited with an Eclipse HTML editor. To do this go to **View | HTML Editor** or you can also choose **HTML Editor** from the right-click menu on the passthru HTML:


Refresh F9
Ruler Ctrl+R
Show
✔ Programmer's Pane
Action Pane
HTML Editor
Expand All Sections
Collapse All Sections
✔ Advanced Menus

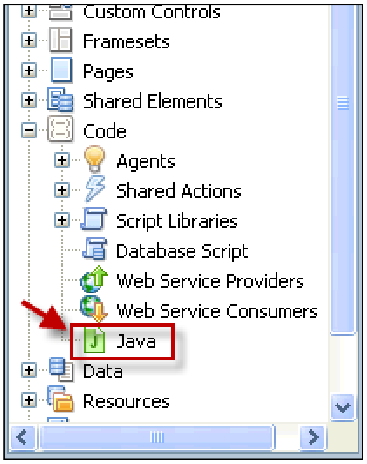
Now, you have the ability to see which version of Designer your design elements have been saved with. You can set an application property using XPages to set the minimum Notes version required for the page to run. The value can be between release 8.5 and 8.5.2. A null value will allow the page to determine the lowest version.

# New Lotus Domino Designer 8.5.3 client features

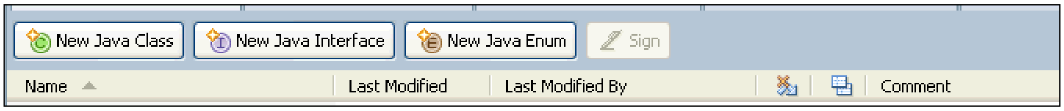
Lotus Domino Designer 8.5.3 continues the progression of the earlier releases in XPages functionality and performance. With a new preload setting, XPages performance increases greatly with this release. This allows an administrator the ability to tell the server (or client) to preload the XPages run time. Specific applications can be selected to be preloaded as well so they are compiled, cached, and in-memory ready-to-use. Additional features include Lotus Domino Designer enhancements.

# Lotus Domino Designer enhancements

In Lotus Domino Designer 8.5.3, you can now add a Java class as a true design element (see the following screenshot). Prior to Lotus Domino Designer 8.5.3, you would manually add it using the Package Explorer:


Custom Controls
Framesets
Pages
Shared Elements
Code
Agents
Shared Actions
Script Libraries
Database Script
Web Service Providers
Web Service Consumers
Java
Data
Resources

The following screenshot displays the buttons that are available in the Java view:

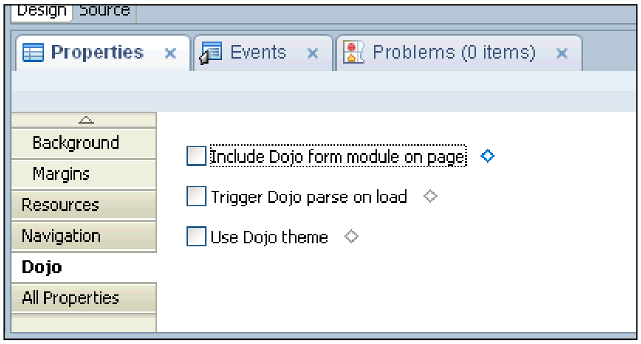

New Java Class
New Java Interface
New Java Enum
Sign
Name
Last Modified
Last Modified By
Comment

Lotus Domino Designer 8.5.3 has added a new function to support the machine specific policy setting called `@GetMachineInfo()`.

There is now an updated JavaScript Editor. With this editor, you now have Java, Lotuscript, Javascript, SSJS and CSS in the Eclipse editors. The Lotus Domino Designer 8.5.3 is truly a one stop shop for developers.

XPages and Forms/Views perspectives allow you to hide classic design elements you don't need in a new application. You can also customize the design element types you want to have appear. So, if you want some classic design elements but never use others, you can hide the ones you do not use. Continuing with the customization theme, you now have the ability to select and filter the design element types you want to display in the **Applications Navigator** and perspectives based on your preference.

The Dojo version shipping with Lotus Domino Designer 8.5.3 is now 1.5.0. In Lotus Domino Designer 8.5.3 there is also a plugin API that will allow you to surface additional Dojo libraries (such as a custom widget you've written) and even different Dojo versions. So, if you want to drop 1.6.1 on your server, you can achieve this. There is also a new Dojo property panel added for XPage and Custom control. The Dojo property panel is shown in the following screenshot:



☐ Include Dojo form module on page

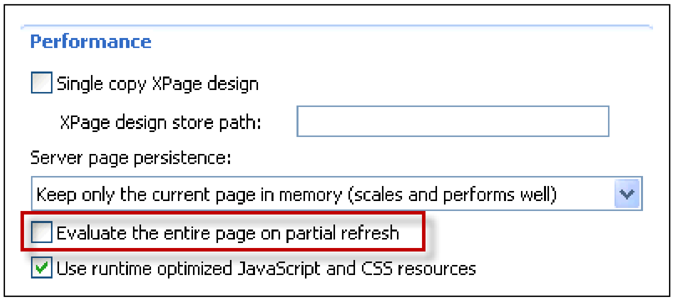
☐ Trigger Dojo parse on load

☐ Use Dojo theme

Domino is aware of the Dojo dependency hierarchy. What this means is you can create XPage applications that have rich functionality. If you are trying to mobilize your apps for mobile, internet-based, or high latency users, you can enable Domino GZip compression for database output. This will really make your XPages application efficient and lightweight.

> By specifying the `xsp.client.script.dojo.version` property in `xsp.properties`, you can change the default version of Dojo used in XPages; however, doing so creates an unsupported configuration.

A new attribute has been added as an Application Properties performance property on XPages. It is **Evaluate the entire page on refresh**:



☐ Single copy XPage design

XPage design store path:

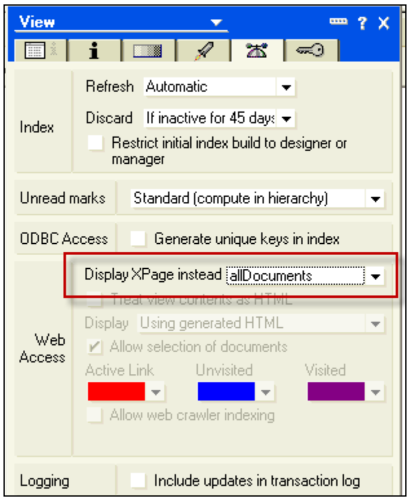
Server page persistence:

Keep only the current page in memory (scales and performs well)

☐ Evaluate the entire page on partial refresh

☑ Use runtime optimized JavaScript and CSS resources

A new **Display XPage instead** attribute has been added to **View | Web Access** InfoBox tab. This **Web only** attribute lets you select an XPage from a drop-down list to display as a web view instead of using a standard view:



Index
Refresh Automatic
Discard If inactive for 45 days
☐ Restrict initial index build to designer or manager

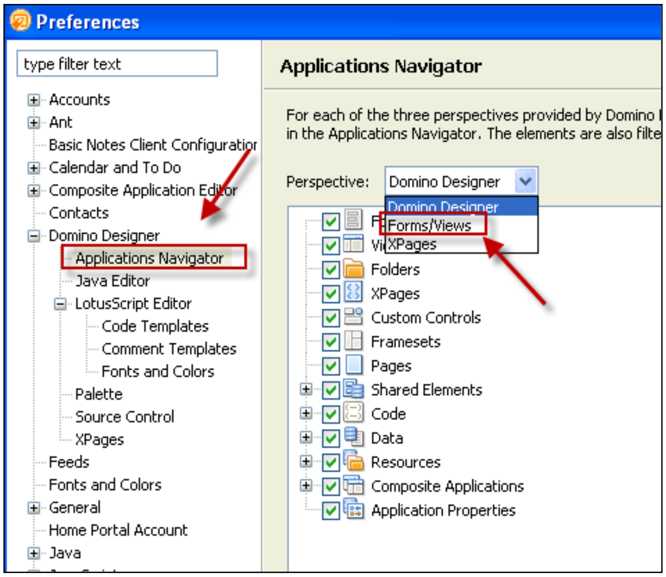
Unread marks Standard (compute in hierarchy)

ODBC Access ☐ Generate unique keys in index

Web Access
Display XPage instead allDocuments
☐ Treat view contents as HTML
Display Using generated HTML
☑ Allow selection of documents
Active Link 🟥 Unvisited 🟦 Visited 🟪
☐ Allow web crawler indexing

Logging ☐ Include updates in transaction log

There have also been several usability updates such as the ability to control the opening of InfoBoxes, a sign button in all design list editors, and the ability to rename design elements name and alias. You would control the opening of the InfoBoxes with the preference setting shown in the following screenshot:

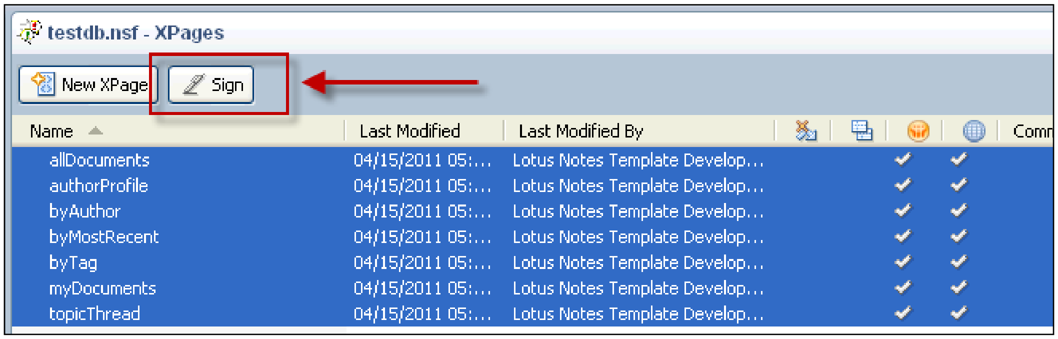

Preferences
type filter text
Accounts
Ant
Basic Notes Client Configuratior
Calendar and To Do
Composite Application Editor
Contacts
Domino Designer
Applications Navigator
Java Editor
LotusScript Editor
Code Templates
Comment Templates
Fonts and Colors
Palette
Source Control
XPages
Feeds
Fonts and Colors
General
Home Portal Account
Java
Domino Designer
Forms/Views
XPages
Folders
XPages
Custom Controls
Framesets
Pages
Shared Elements
Code
Data
Resources
Composite Applications
Application Properties

Applications Navigator

For each of the three perspectives provided by Domino
in the Applications Navigator. The elements are also filte

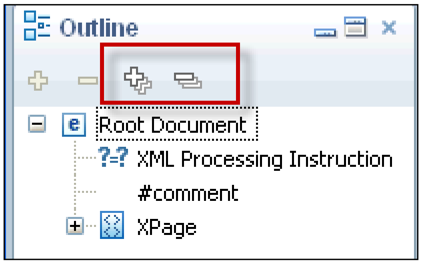
Perspective: Domino Designer

The following screenshot shows the **Sign** button:



| Name | Last Modified | Last Modified By | | | | | Comm |
|---|---|---|---|---|---|---|---|
| allDocuments | 04/15/2011 05:... | Lotus Notes Template Develop... | | | ✓ | ✓ | |
| authorProfile | 04/15/2011 05:... | Lotus Notes Template Develop... | | | ✓ | ✓ | |
| byAuthor | 04/15/2011 05:... | Lotus Notes Template Develop... | | | ✓ | ✓ | |
| byMostRecent | 04/15/2011 05:... | Lotus Notes Template Develop... | | | ✓ | ✓ | |
| byTag | 04/15/2011 05:... | Lotus Notes Template Develop... | | | ✓ | ✓ | |
| myDocuments | 04/15/2011 05:... | Lotus Notes Template Develop... | | | ✓ | ✓ | |
| topicThread | 04/15/2011 05:... | Lotus Notes Template Develop... | | | ✓ | ✓ | |

There is also the ability to expand and collapse all the sections in a view:



Finally with Lotus Domino Designer 8.5.3, you can now incorporate **Full Text** (**FT**) search result sorting on XPage view controls.

# Lotus Component Designer

Lotus Component Designer is the new version of Workplace Designer, with support for WebSphere Portal 6. It is a development environment built on top of Eclipse, which allows for the creation of document-based applications using visual design methods with no need to know the intricacies of J2EE.

Forms are the building blocks for applications built with Lotus Component Design. Applications can have more than one form associated with them. Each form then contains one or more controls. Controls include views, images, text boxes, combo boxes, radio buttons, and tables.

Once the controls are placed on a form, the built-in JavaScript editor can be used to customize functionality. The JavaScript editor supports color-coding and code-assist, so developers who are comfortable with developing in Domino Designer will feel right at home.

The forms and controls within a Lotus Component Designer application are used to manipulate an XML-based document model, which is stored in a relational database. This allows for the separation of the look and feel of the application from its data.

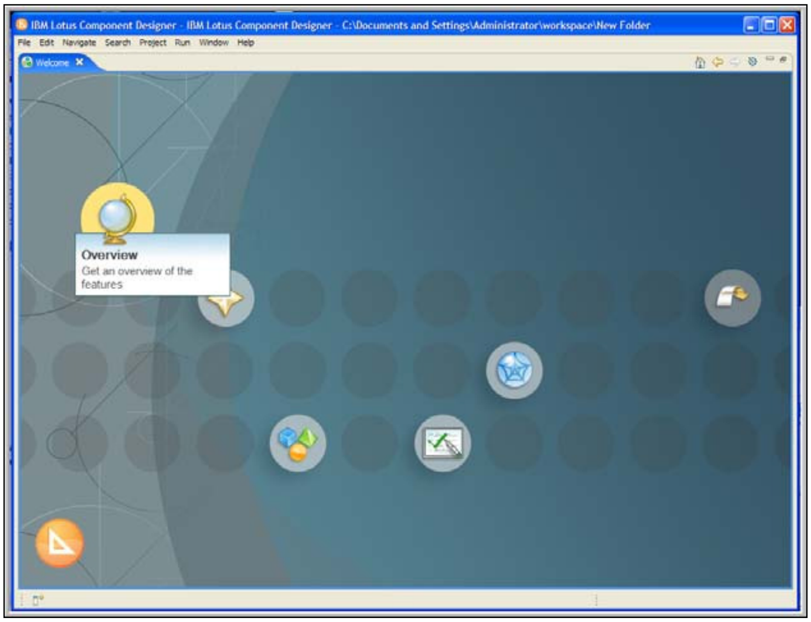
Here are a number of new features of Lotus Component Designer:

# Migration tool

Lotus Component Designer allows you to migrate components created with previous releases into release 8. The migration tool is a part of the component import process and can detect older versions of components. When an older version is detected, its pages are converted to the new XSP format.

# Help and enhanced welcome page

As shown in the following screenshot, the new Lotus Component Designer welcome page offers a rich set of options including an overview, tutorials, samples, web resources, and context-sensitive help:


IBM Lotus Component Designer - IBM Lotus Component Designer - C:\Documents and Settings\Administrator\workspace\New Folder
File Edit Navigate Search Project Run Window Help
Welcome
Overview
Get an overview of the features

# Accessibility

Lotus Component Designer is an accessible software development tool with which you can create accessible components. It is compliant with IBM **Corporate Instruction 162** (**CI 162**) which meets the U.S. government's federal accessibility guidelines for information technology. It requires that the hardware, software, services, web pages, and internal applications are accessible to persons with disabilities.

# Composite application support

With Lotus Component Designer, you can now create applications that can work within the IBM WebSphere Portal composite application model. These components can interact with components created with Notes/Domino 8 as well.

# Controls and pages

There are many new features and additions to controls and pages. A few favorites are as follows:

- Preview images directly from the **Choose Image** dialog box without having to add it to the page first
- Create custom controls, which combine two or more controls into a single control
- Add UI controls that are not listed in the standard UI Controls palette, such as supported AJAX controls
- Web page preview without having to leave Lotus Component Designer

# Data connections

Some of the new features and enhancements for data connectivity are as follows:

- Local connections are supported in components. Connections are the sets of information used to connect to a data source such as a database.
- The schema editor has been improved so as to provide an easy graphical way to create and edit XML schemas.
- Components can now store data in external data sources such as Domino databases and XML files on a target server.
- A new query editor is available to provide a more granular and flexible way to populate view queries.
- Components can now consume external web services and manipulate the data received with JavaScript.

## Scripting

Some of the new features and enhancements for deployment are as follows:

- There is a new XSP file format for registry and page loading which has been made public. For more information, visit the Lotus Component Designer developerWorks website at the following URL:

  `http://www-01.ibm.com/software/lotus/`
- A new XSP tag library is available, offering a library of UI controls, data sources, simple actions and other controls. This library is located in the `\doc\controls` directory.
- A JavaScript debugger is now included and can be used to debug any JavaScript code that runs on WebSphere Portal 6.x.

## Deployment

Some of the new features and enhancements for deployment are as follows:

- One can deploy components to servers without having knowledge of J2EE applications and without the administrator credentials
- Components can be deployed to a cluster for production deployment by exporting the components **Web Archive** (**WAR**) and **Data Definition Language** (**DDL**) files and providing them to your administrators
- Basic authentication is now supported for WebSphere Portal 6.x

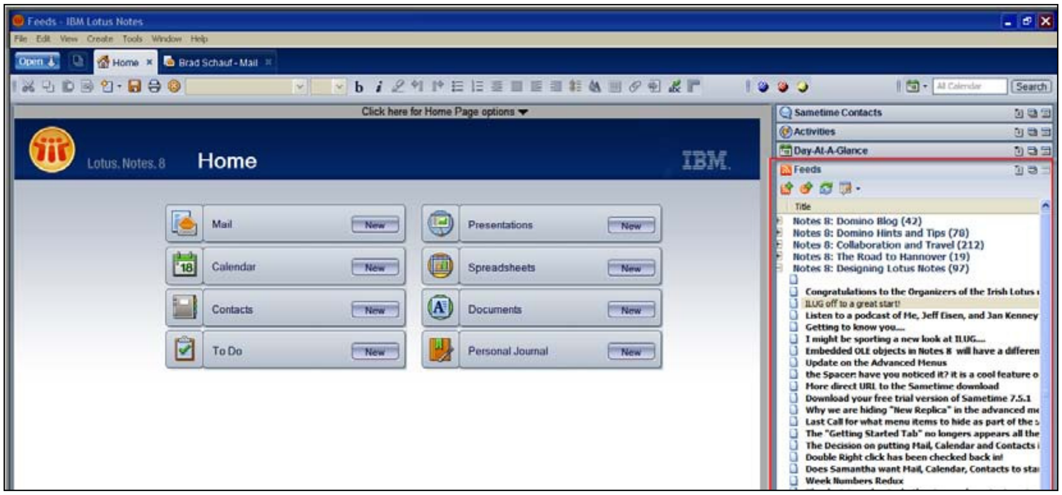
# New Web 2.0 features

Some of the new Web 2.0 features that are available in Notes/Domino 8.5, such as RSS and ATOM are discussed in the following sections.

## RSS and ATOM

RSS and ATOM are feed formats used to publish web content that is updated on a regular basis. News organizations, governments, private companies, and even individuals via their daily blogs publish RSS and ATOM feeds. All you need to read these feeds is an RSS or ATOM reader such as Notes 8 and access to the Internet.

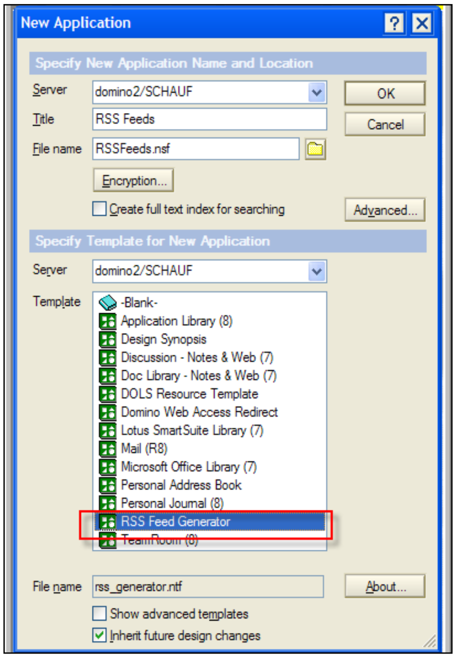
Feeds within Lotus Notes 8.5 are included as a sidebar plugin along with the **Sametime Contacts**, **Activities**, and **Day-At-A-Glance**, on the right-side of the screen:


Feeds - IBM Lotus Notes
File Edit View Create Tools Window Help
Open
Home
Brad Schauf - Mail
All Calendar
Search
Click here for Home Page options
Lotus. Notes. 8
Home
IBM.
Mail
Calendar
Contacts
To Do
Presentations
Spreadsheets
Documents
Personal Journal
New
Sametime Contacts
Activities
Day-At-A-Glance
Feeds
Title

Notes 8: Domino Blog (42)
Notes 8: Domino Hints and Tips (78)
Notes 8: Collaboration and Travel (212)
Notes 8: The Road to Hannover (19)
Notes 8: Designing Lotus Notes (97)
Congratulations to the Organizers of the Irish Lotus
ILUG off to a great start!
Listen to a podcast of Me, Jeff Eisen, and Jan Kenney
Getting to know you....
I might be sporting a new look at ILUG....
Embedded OLE objects in Notes 8 will have a differen
Update on the Advanced Menus
the Spacer: have you noticed it? it is a cool feature o
More direct URL to the Sametime download
Download your free trial version of Sametime 7.5.1
Why we are hiding "New Replica" in the advanced me
Last Call for what menu items to hide as part of the
The "Getting Started Tab" no longers appears all the
The Decision on putting Mail, Calendar and Contacts
Double Right click has been checked back in!
Does Samantha want Mail, Calendar, Contacts to sta
Week Numbers Redux

With Notes/Domino 8, you can also generate RSS feeds from Domino databases including the new blog template and Domino Web Access. The Domino RSS Syndication template is used to create the feeds from any Domino view. The agents and script libraries from this template can also be used within other applications.

The first step is to create a database to manage your feeds. Create the new application and base it on the **RSS Feed Generator** template:

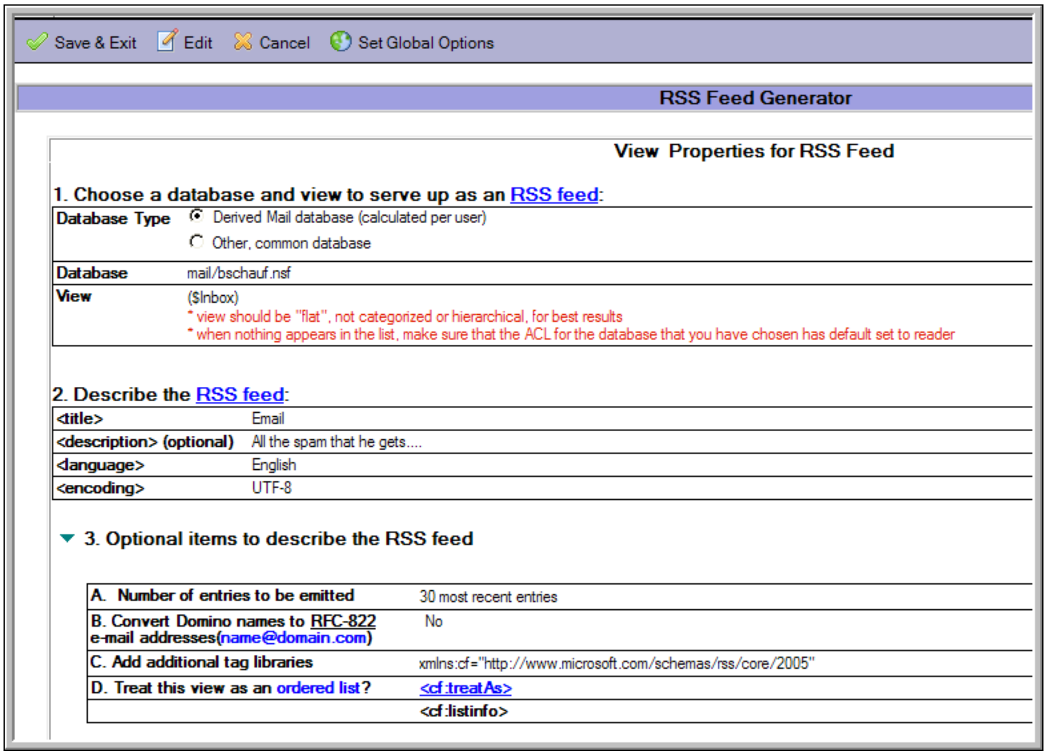

New Application
Specify New Application Name and Location
OK
Cancel
Encryption...
Advanced...
Specify Template for New Application
About...

Server: domino2/SCHAUF
Title: RSS Feeds
File name: RSSFeeds.nsf
☐ Create full text index for searching

Server: domino2/SCHAUF
Template:
-Blank-
Application Library (8)
Design Synopsis
Discussion - Notes & Web (7)
Doc Library - Notes & Web (7)
DOLS Resource Template
Domino Web Access Redirect
Lotus SmartSuite Library (7)
Mail (R8)
Microsoft Office Library (7)
Personal Address Book
Personal Journal (8)
RSS Feed Generator
TeamRoom (8)

File name: rss_generator.ntf
☐ Show advanced templates
☑ Inherit future design changes

Once the database has been created, you will want to set up the global options that apply to all the RSS feeds that are generated. To do this, click on **Set Global Options** in the Action bar of the application:



RSS Feed Generator

View Properties for RSS Feed

1. Choose a database and view to serve up as an RSS feed:

| | |
|---|---|
| Database Type | ● Derived Mail database (calculated per user)<br>○ Other, common database |
| Database | mail/bschauf.nsf |
| View | ($Inbox)<br>* view should be "flat", not categorized or hierarchical, for best results<br>* when nothing appears in the list, make sure that the ACL for the database that you have chosen has default set to reader |

2. Describe the RSS feed:

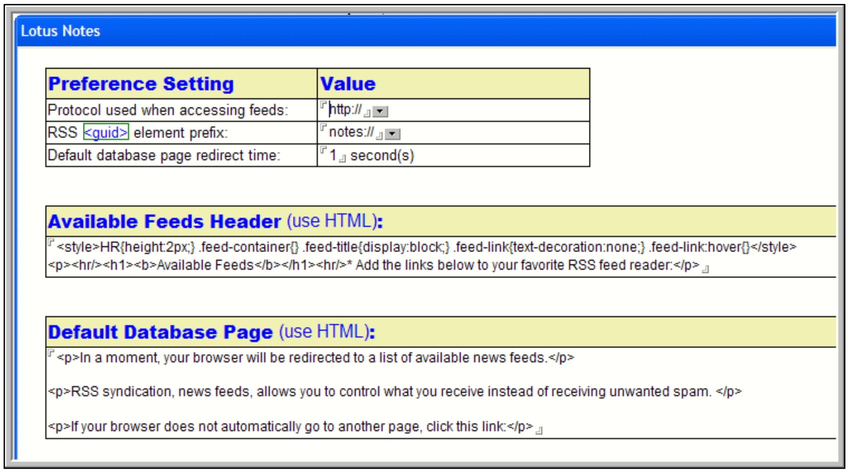
| | |
|---|---|
| <title> | Email |
| <description> (optional) | All the spam that he gets.... |
| <language> | English |
| <encoding> | UTF-8 |

3. Optional items to describe the RSS feed

| | |
|---|---|
| A. Number of entries to be emitted | 30 most recent entries |
| B. Convert Domino names to RFC-822 e-mail addresses(name@domain.com) | No |
| C. Add additional tag libraries | xmlns:cf="http://www.microsoft.com/schemas/rss/core/2005" |
| D. Treat this view as an ordered list? | <cf:treatAs> |
| | <cf:listinfo> |

Using the **Set Global options** dialog, you can control the following:

- **Protocol used when accessing feeds**: This can be set either to **http://** or **https://**
- **RSS <guid> element prefix**: This can be set either to **notes://** or **http://**
- **Default database page redirect time**: This is entered in seconds
- **Available Feeds Header (use HTML)**: This displays all available feeds
- **Default Database Page (use HTML)**: This is the default HTML for the feed database


Lotus Notes

| Preference Setting | Value |
|---|---|
| Protocol used when accessing feeds: | http:// |
| RSS <guid> element prefix: | notes:// |
| Default database page redirect time: | 1 second(s) |

**Available Feeds Header** (use HTML):

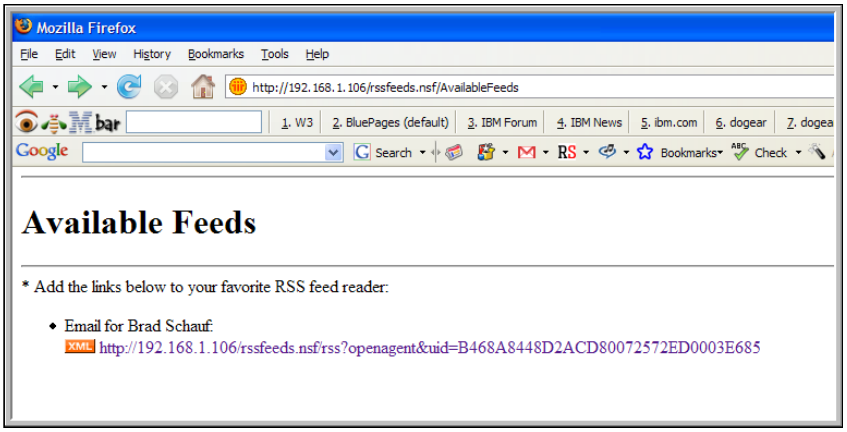
```
<style>HR{height:2px;} .feed-container{} .feed-title{display:block;} .feed-link{text-decoration:none;} .feed-link:hover{}</style>
<p><hr/><h1><b>Available Feeds</b></h1><hr/>* Add the links below to your favorite RSS feed reader:</p>
```

**Default Database Page** (use HTML):

```
<p>In a moment, your browser will be redirected to a list of available news feeds.</p>

<p>RSS syndication, news feeds, allows you to control what you receive instead of receiving unwanted spam. </p>

<p>If your browser does not automatically go to another page, click this link:</p>
```

Once the defaults are set, you can define a feed and direct it to a specific mail file, based on a user or on a specific database.

When a feed is defined, you are able to get a list of all available feeds from the Domino server by directing your browser to the feed database that you created earlier. From this web page, you will be able to add the feed into your favorite RSS feed reader:


Mozilla Firefox
File Edit View History Bookmarks Tools Help
1. W3
2. BluePages (default)
3. IBM Forum
4. IBM News
5. ibm.com
6. dogear
7. dogea
Google
Search
Bookmarks
Check

http://192.168.1.106/rssfeeds.nsf/AvailableFeeds

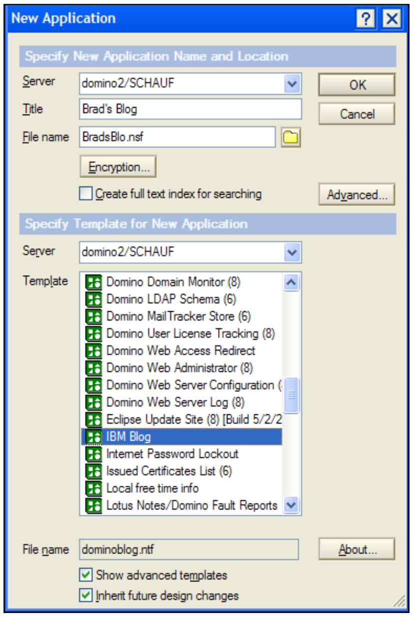
Available Feeds

* Add the links below to your favorite RSS feed reader:

- Email for Brad Schauf:
  XML http://192.168.1.106/rssfeeds.nsf/rss?openagent&uid=B468A8448D2ACD80072572ED0003E685

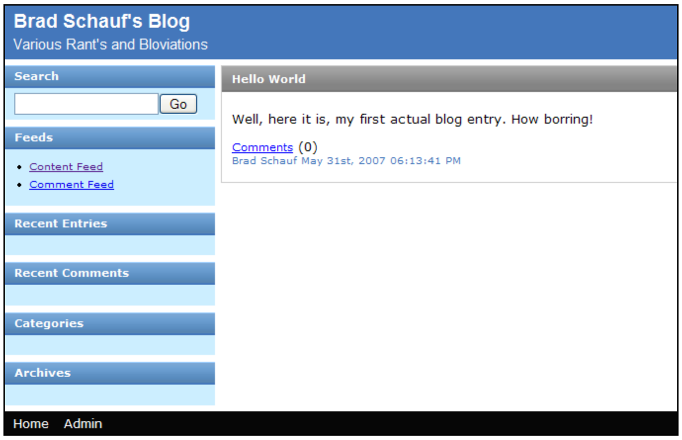
# Blog template

Starting with Notes 8, you can create your own web log, or blog, using the new Domino Web Log template (`dominoblog.ntf`). Once created, you can use either Lotus Notes or a web browser to add content and manage your blog. The resultant web page shows the first entry of the author's blog. The template allows a creation of blog entries from the Notes client or from the website itself:


New Application
Specify New Application Name and Location
OK
Cancel
Encryption...
Advanced...
Specify Template for New Application
Domino Domain Monitor (8)
Domino LDAP Schema (6)
Domino MailTracker Store (6)
Domino User License Tracking (8)
Domino Web Access Redirect
Domino Web Administrator (8)
Domino Web Server Configuration (
Domino Web Server Log (8)
Eclipse Update Site (8) [Build 5/2/2
IBM Blog
Internet Password Lockout
Issued Certificates List (6)
Local free time info
Lotus Notes/Domino Fault Reports
About...

Server: domino2/SCHAUF
Title: Brad's Blog
File name: BradsBlo.nsf
☐ Create full text index for searching
Server: domino2/SCHAUF
Template: IBM Blog
File name: dominoblog.ntf
☑ Show advanced templates
☑ Inherit future design changes

The following screenshot shows what the new blog template looks like when accessed from a client:


Search
Go
Feeds
Content Feed
Comment Feed
Recent Entries
Recent Comments
Categories
Archives
Home
Admin

Brad Schauf's Blog
Various Rant's and Bloviations

Hello World

Well, here it is, my first actual blog entry. How borring!

Comments (0)
Brad Schauf May 31st, 2007 06:13:41 PM

# AJAX support

Domino 8 added support for **JavaScript Object Notation** (**JSON**) as an output format. JSON is a lightweight data-interchange format. It is easy for humans to read and write. This makes JSON an ideal data-interchange language.

# Lotus Expeditor

Lotus Expeditor is the base platform for Lotus rich clients such as Notes 8 Standard and Sametime 7.5. It is also a product that companies can leverage to build their own rich client solutions. Built on top of Eclipse (an open source IDE), Lotus Expeditor adds the ability to create composite applications, a local data store for credentials and application data, role-based provisioning, enhanced security, and offline abilities.

One of the problems with rich clients in the past, was the cost of deployment and support. Rich clients are large installations that needed to be upgraded and supported. In fact, it is the cost of deployment and support that helped to drive the web-based applications that we see in wide use today. Everyone with a rich client knew what version of it they were running, but there is no reason to know what version of eBay, Google Mail, or your corporate WebSphere Portal you may be using because they are server managed and will have been updated all the time with new features, functions, and content.

In fact, as the rush towards web-based applications required more and more functionality to be supported by the browser, the "light browser" itself became very large and started to require deployment and support planning. In some instances, the browser footprint on a client became larger than some rich client applications.

Lotus Expeditor can be thought of as a platform that has all the benefits of rich clients but also has the benefits of those web-based applications because it can be centrally managed. It can also be described as a "local portal" because it can be used to create composite applications that contain Notes/Domino 8 components, JSR-168 compliant portlets, SWING, and AWT applications without the need for a network connection.

Lotus Expeditor does this by implementing client-side containers for the components that communicate via a local property-broker implementation. This can have another benefit—speed of execution. As the code is executing within the Lotus Expeditor platform, the composite application may not be affected by network and backend systems latency, or at least may be affected only to the extent that it utilizes those systems.

In addition to responsiveness, applications built with Lotus Expeditor can also be more reliable and portable due to their local execution and data stores. This results in a rich client that has the benefits of a browser but with a user experience that can be better than a browser due to speed, reliability, centralized management, and the ability to work online or offline. When working offline, the applications store transactions in the local data store. Once connected to the company network, Lotus Expeditor can then synchronize the transactions to the host application and may even download updates for the application itself.

Some of the applications that can be built with Lotus Expeditor include customer service and support applications, such as bank teller and reservations clerk, as well as sales force automation applications, such as mobile CRM or insurance claims management.

# Summary

In this chapter, we reviewed some of the major new features and enhancements that affect Notes/Domino 8 application development.

We then covered Lotus Component Designer, Web 2.0, and Lotus Expeditor. In the next chapter, we will take a look at integration of Lotus Domino with other Lotus and IBM products.

# 10

# Integration with Other Lotus/IBM Products

The Lotus brand within the IBM Software group represents the "people facing" side of the overall IBM product family. This does not necessarily mean that the end user uses no other IBM products, but the Lotus brand is the frontend of the IBM SOA Interaction services component.

This chapter shows the various interactions between Domino and other IBM integration products. Each product can be deployed as a separate infrastructure piece and provide value. However, when they are leveraged as an integrated solution, the possibilities are endless.

Each of these add-on products represent key components in the overall product strategy that IBM has for the collaboration space.

However, this chapter does not cover all of the products available under the Lotus brand. For additional information on these, please visit `http://www.lotus.com`.

In this chapter, we will cover the following topics:

- Lotus Quickr
- Lotus Sametime
- Lotus Connections
- IBM Learning Widget
- IBM Multimedia Library
- New integration features in Lotus Notes and Domino 8.5.3

# Lotus Quickr

The Lotus Quickr product has been available for several years. Previously known as QuickPlace, Quickr has become recognized as a leader in web-based team collaboration, and it is used in many large corporations throughout the world.

The goal of the change from QuickPlace to Quickr is simplification. IBM wants the product to be so simple that an end user can, with a few clicks, generate productive services. There is also a focus on server deployment simplification. This will be covered in detail later in this chapter.

One of the key components of Quickr is the connector technology that it introduces. These connectors will allow for direct and programmatic interaction with the data stored in the Quickr places. Connectors that will be shipping with Quickr 8.5.1 are as follows:

- Notes
- Sametime
- File System/Windows Explorer
- RSS/ATOM

In this section, we will cover each edition and discuss how it integrates with Domino.

# Quickr with services for Domino

The Domino-based edition of Quickr should be thought of as a significant upgrade to the existing QuickPlace product line. This product has been maturing over many years, and this new release provides many new capabilities. These include native support for wikis and blogs out of the box. The Quickr wiki is found at the following URL:

`http://www-10.lotus.com/ldd/lqwiki.nsf/`

The basic installation process for Quickr with service for Domino is very simple. It involves installing a base Domino server version 8.5.1. The Quickr product components are then installed on top of this server. Based on this writing, the support for Quickr 8.5.1 will be supported on Domino 8.5.1 and Domino 8.5.3. Currently, support for Quickr 8.5.1 installation support on Domino 8.5.2 is being skipped and will go straight to Domino 8.5.3. Quickr for Domino is installed in four basic steps that are listed as follows:

- Install and configure Lotus Domino Server 8.5.1 and Fix Pack 5 (or Domino 8.5.3)
- Install Lotus Quickr 8.5.1 on the Domino Server

- Configure **Multi-server Single Sign-on** (**MSSO**) authentication, Domino servlet engine, and UTF-8 character encoding on the Lotus Domino Server
- Configure Quickr Domino Server settings

## Installing and configuring Lotus Domino Server

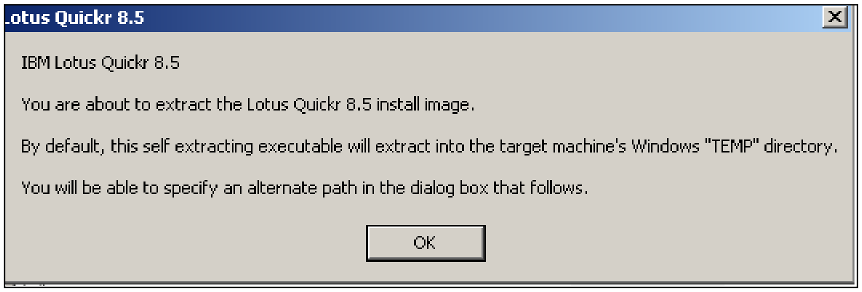
Installing and configuring Lotus Domino Server is a standard Lotus Domino Server install. There are some additional Notes.ini variables that can be added, but overall this is just a standard Domino install. It is recommended to install **Domino Offline Services** (**DOLS**), if you would like to take your Quickr Places offline. Some of these Notes.ini variables could include the following:

- `Create_R8_Databases=1`: This is used for On-Disk Structure management.
- `Create_R85_Databases=1`: This is used for On-Disk Structure management.
- `$QuickPlaceDisallowAnonAccess`: This contains the settings that enable and disable anonymous access.
- `QuickPlaceNestedGroupLimit=x`: Here, `x` is the number of nested group lookups, the higher the number, the slower the authentication.
- `INET_Authenticate_with_Secondary=1`: This is set to use a secondary directory.
- `$DOLS_TCPIPAddress=1`: This is used to configure a cluster that uses the IBM Network Dispatcher to work with Domino Offline Services. A value of `0` (zero) disables this setting.
- `CheckCacheBeforeDSAPI=1`: Enables authentication to work for offline users. A value of 0 (zero) disables this setting.
- `EXTMGR_ADDINS`: Dependent on an operating system.
- `libdolextn` (on AIX): Enables Domino Offline Services to work with Lotus Quickr.
- `NoWebFileSystemACLS=1`: If you use the Sun Java System Portal Server with IBM Lotus Quickr as a reverse proxy, use the Notes.ini setting to prevent users from having to re-authenticate after installing places offline. A value of `0` (zero) disables this setting.

## Installing Lotus Quickr

It is very easy to install Lotus Quickr. The following screens show you how to get your Domino Quickr Server installed:

1. The first step is to get your Lotus Quickr Code from the Lotus Passport site.
2. Launch the code and you will see the following screen:



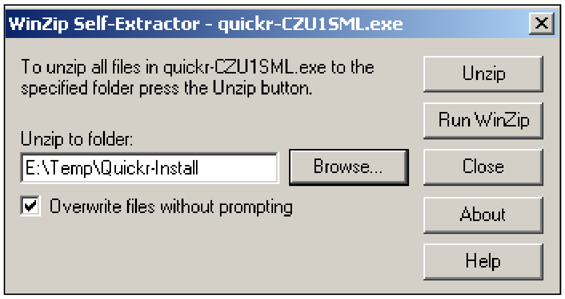
IBM Lotus Quickr 8.5

You are about to extract the Lotus Quickr 8.5 install image.

By default, this self extracting executable will extract into the target machine's Windows "TEMP" directory.

You will be able to specify an alternate path in the dialog box that follows.

3. Next, select the temporary directory. We used **E\Temp\Quickr-Install** as our temporary directory for this demonstration. The following screenshot shows this selection:

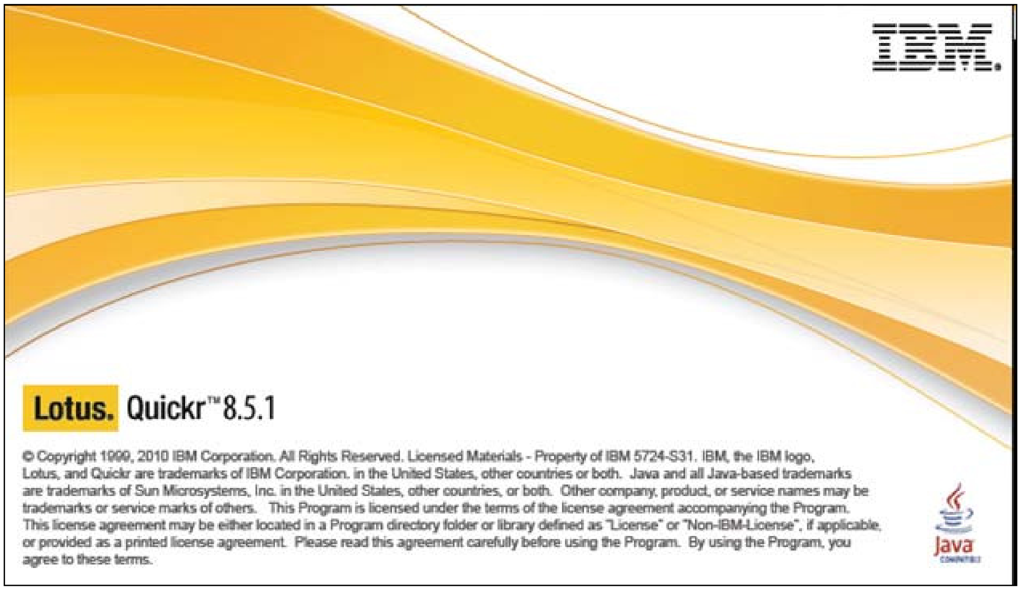


To unzip all files in quickr-CZU1SML.exe to the specified folder press the Unzip button.

Unzip to folder: E:\Temp\Quickr-Install

☑ Overwrite files without prompting

4. Once the install starts, you will see a splash screen. As noted, Quickr 8.5.1 will run on Lotus Notes 8.5.1 (with Fix Pack 5) or the new 8.5.3 release.



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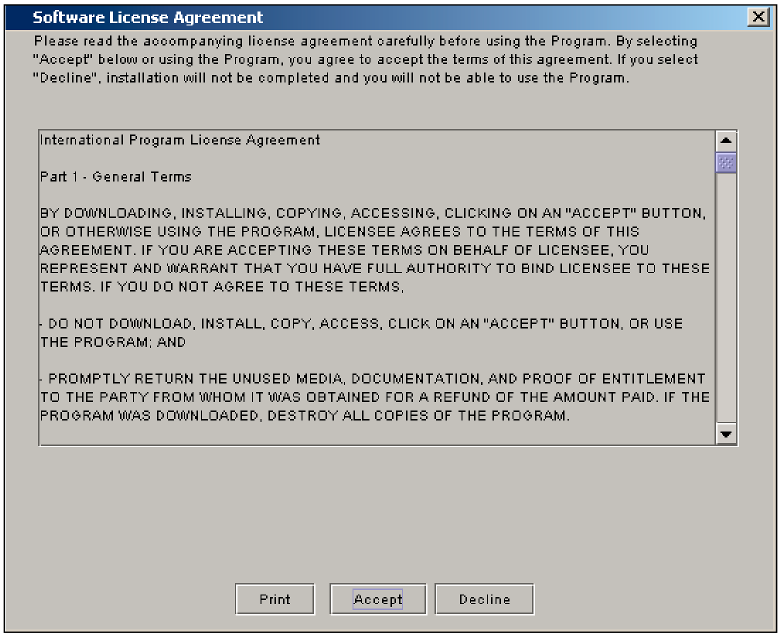
5. As usual, you will receive a **Software License Agreement** dialog box (see the following screenshot). You can print the agreement from this dialog box, click on the **Accept** or the **Decline** button to accept or decline the agreement:



Please read the accompanying license agreement carefully before using the Program. By selecting "Accept" below or using the Program, you agree to accept the terms of this agreement. If you select "Decline", installation will not be completed and you will not be able to use the Program.

International Program License Agreement

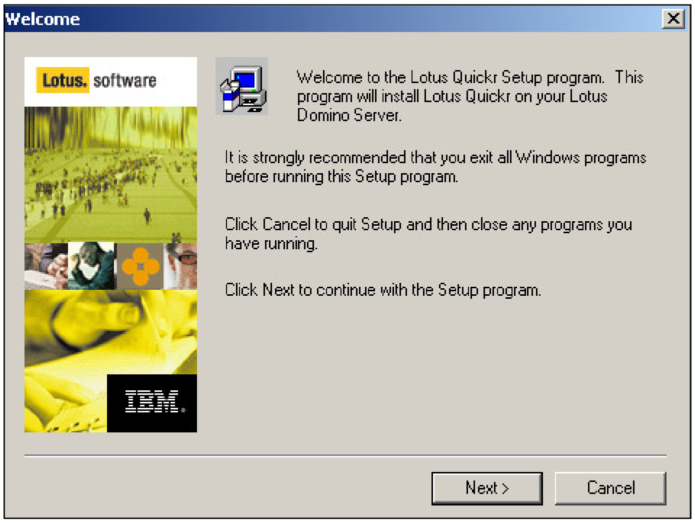
Part 1 - General Terms

BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, CLICKING ON AN "ACCEPT" BUTTON, OR OTHERWISE USING THE PROGRAM, LICENSEE AGREES TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF LICENSEE, YOU REPRESENT AND WARRANT THAT YOU HAVE FULL AUTHORITY TO BIND LICENSEE TO THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS,

- DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, CLICK ON AN "ACCEPT" BUTTON, OR USE THE PROGRAM; AND

- PROMPTLY RETURN THE UNUSED MEDIA, DOCUMENTATION, AND PROOF OF ENTITLEMENT TO THE PARTY FROM WHOM IT WAS OBTAINED FOR A REFUND OF THE AMOUNT PAID. IF THE PROGRAM WAS DOWNLOADED, DESTROY ALL COPIES OF THE PROGRAM.

6. The next set of dialog boxes provide the interface questions that need to be answered as part of a standard Quickr install:



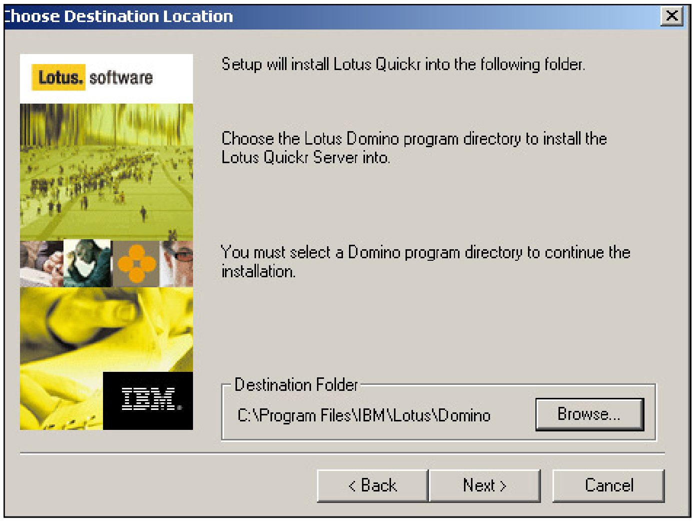
Welcome to the Lotus Quickr Setup program. This program will install Lotus Quickr on your Lotus Domino Server.

It is strongly recommended that you exit all Windows programs before running this Setup program.

Click Cancel to quit Setup and then close any programs you have running.

Click Next to continue with the Setup program.

7. An installed Domino server is required for Quickr to be hosted on. As shown in the following screenshot, the question in the dialog box is about the location of the Domino server's executable files. In this installation, this location was found automatically and the location was prompted to the end user. Overall, this location cannot be changed; it must match the location of where Domino is installed:



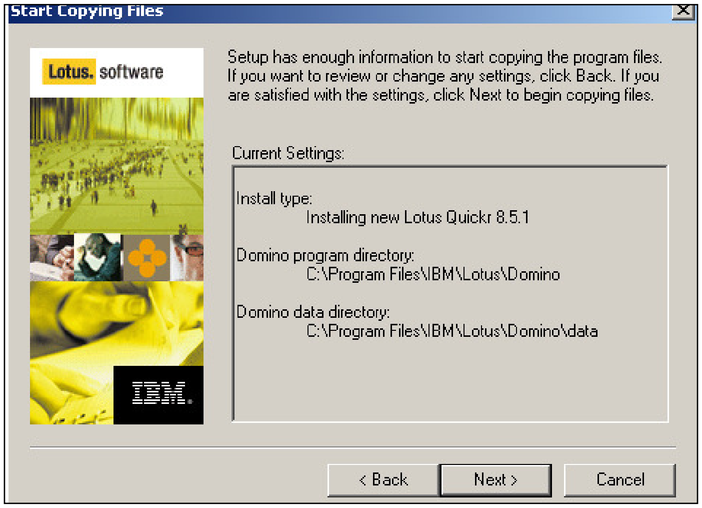
Setup will install Lotus Quickr into the following folder.

Choose the Lotus Domino program directory to install the Lotus Quickr Server into.

You must select a Domino program directory to continue the installation.

Destination Folder
C:\Program Files\IBM\Lotus\Domino

8. The following screenshot confirms the location of the data and the Domino executable directory. If this is not correct then you can go back, or cancel the installation and review the Notes.ini file for the actual location of where these elements are located. If this is correct click on the **Next** button to proceed:



Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.

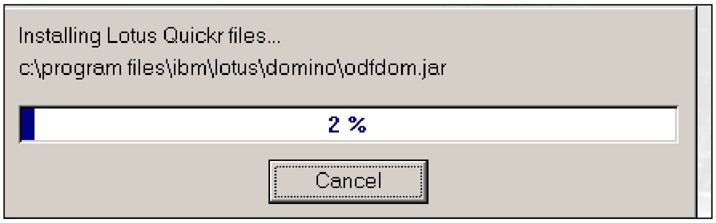
Current Settings:

Install type:
Installing new Lotus Quickr 8.5.1

Domino program directory:
C:\Program Files\IBM\Lotus\Domino

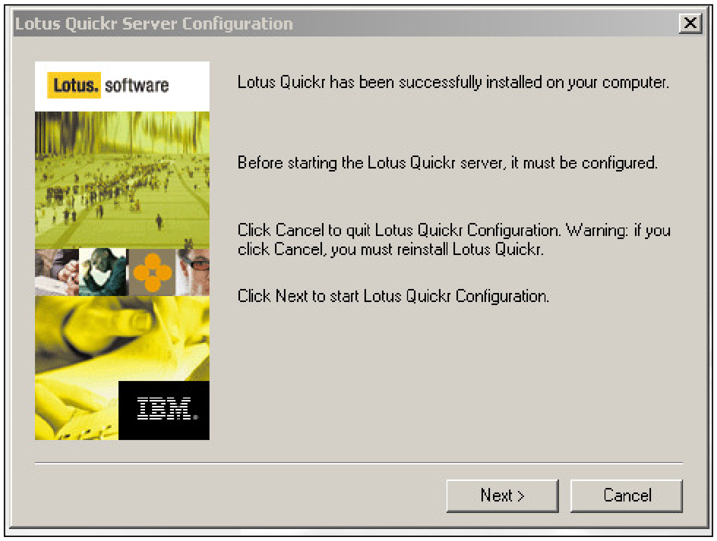
Domino data directory:
C:\Program Files\IBM\Lotus\Domino\data

9. The following screenshot shows a progress dialog box. This gives you an idea of the Quickr installation progress:



Installing Lotus Quickr files...
c:\program files\ibm\lotus\domino\odfdom.jar

10. The following dialog box shows that you have completed the base installation of Quickr. Click on the **Next** button to go to the next step:



Lotus Quickr Server Configuration

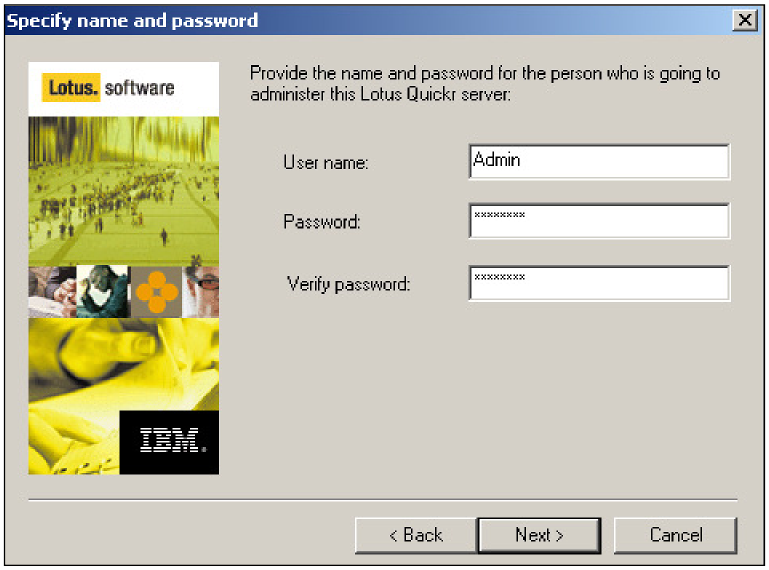
Lotus Quickr has been successfully installed on your computer.

Before starting the Lotus Quickr server, it must be configured.

Click Cancel to quit Lotus Quickr Configuration. Warning: if you click Cancel, you must reinstall Lotus Quickr.

Click Next to start Lotus Quickr Configuration.

11. This step is where you define the Quickr Administration's username and password, as shown in the following screenshot. You will be prompted anytime that you need to make changes to any of the Quickr administration changes. Click on the **Next** button to continue:



Specify name and password

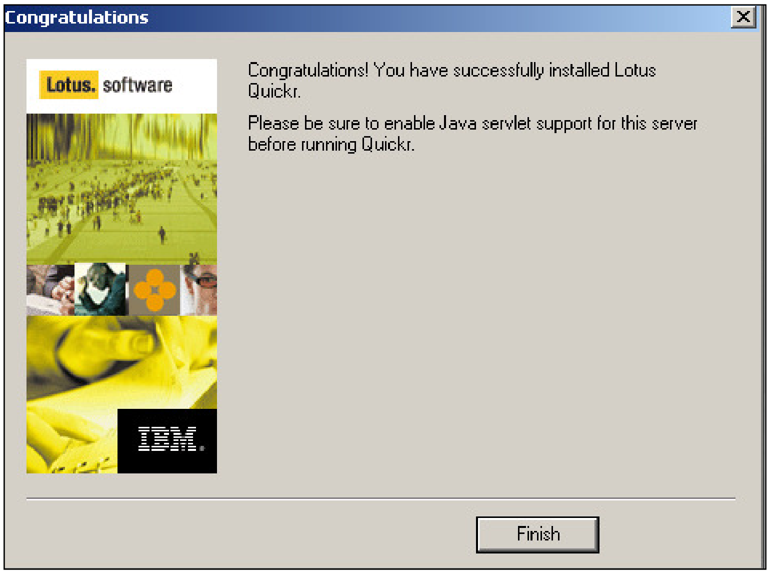
Provide the name and password for the person who is going to administer this Lotus Quickr server.

User name: Admin

Password: ********

Verify password: ********

12. At this point, you are finished with the basic install for Quickr. As shown in the following screenshot, click on the **Finish** button to complete this install:



Congratulations! You have successfully installed Lotus Quickr.

Please be sure to enable Java servlet support for this server before running Quickr.

## Configuring Multi-server Single Sign-on (MSSO) authentication

The next step is to set up the Multi-Server Single Sign-on (MSSO) authentication. In older releases of Lotus Domino, the MSSO was denoted as Server **Single Sign-on** (**SSO**). The features provide the ability for Web users to log in to a Domino or Websphere server once. A "token" will be provided to each user's Web client that will, in effect, authenticate that user for any server that is sharing the MSSO-based credentials. End users will only be prompted once for their credentials. The username and password will not be asked for again.

### Base requirements for MSSO

Each end user browser must have their cookies enabled. As a token is being used, the browser must have the ability to accept those tokens. If you would like to review the cookie then just add `javascript:alert(document.cookie)` as a comment in place of a URL. Do not enter "http://".

The DNS domain that applies to the participating SSO servers is specified to each MSSO server configuration document. IP addresses cannot be used as part of the URL syntax. For example, `http://192.9.200.20/` is not a legal entry for MSSO. The following URL will work:

```
http://Quickr.example.com
```

> Be sure and check RFC 1736 and RFC 1738 for more information about URLs.

Also, it is critical for the DNS name to match the entry point into the server. For example, each MSSO configuration is setup based on a DNS name (`example.com`). As long as a server can resolve to an address, there is the possibility that HTTP can respond. But in the case of MSSO, the DNS name for the URL must match what was configured in the Domino server.

For example, DNS via NSLookup shows an IP address assigned to `IBM.com` as `9.9.9.9`. Also, DNS via NSLookup shows an IP address assigned to `example.com` as `9.9.9.9`.

> This can be accomplished via a variety of techniques including DNS A and CNAME records.

If the DNS name is `example.com`, the `IBM.com` address will not accept the MSSO token.

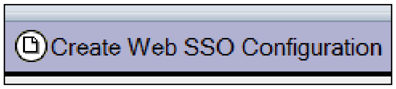
WebSphere cannot use Domino based authoritative LTPA tokens. To include Domino and WebSphere in the same LTPA group, you need to create the authoritative LTPA token first in WebSphere then you must export the LTPA token from WebSphere and import it into Domino.

Now, that you understand some of the basic rules, let's create a MSSO document and the associated security keys.

You can use the Domino Server document or a site document for the base Domino Web configuration settings. This is up to you and how you have configured your environment.

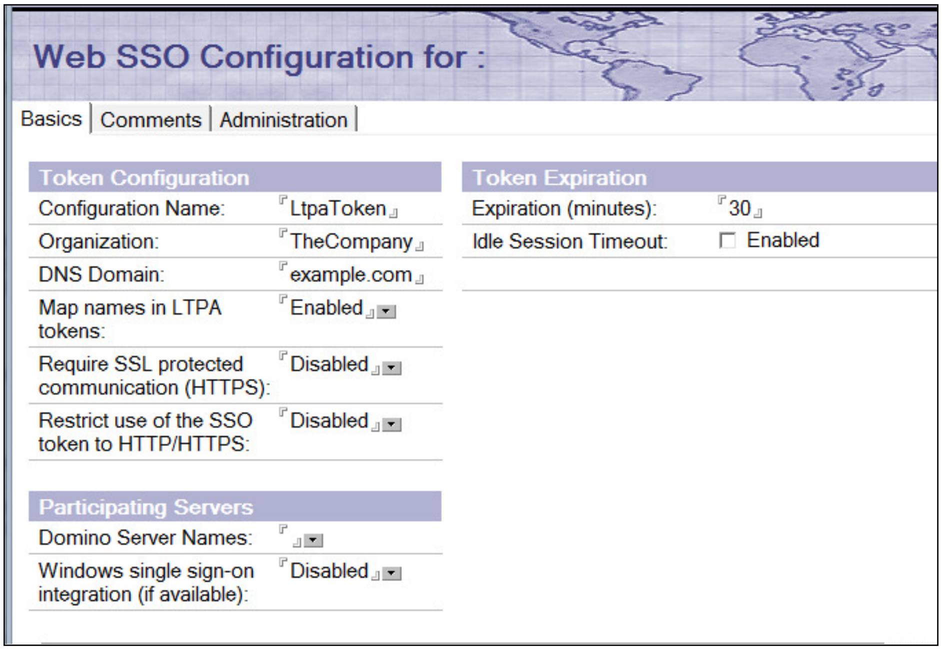
1. Open the Administration Server—`names.nsf`.
2. Select the **Internet Sites** view.
3. Click on **Create Web SSO Configuration**.

4. In the SSO document, click on **Keys.**
5. Initialize the Web SSO Configuration with the shared secret key, at this point you have the following two choices:
    - To choose Domino only, select the **Create Domino SSO Key** option:



    - Choose **Domino and WebSphere** and import the Keys.

6. The following screenshot shows the SSO (MSSO) configuration document:



Web SSO Configuration for :

Basics | Comments | Administration

Token Configuration

Configuration Name: LtpaToken

Organization: TheCompany

DNS Domain: example.com

Map names in LTPA tokens: Enabled

Require SSL protected communication (HTTPS): Disabled

Restrict use of the SSO token to HTTP/HTTPS: Disabled

Participating Servers

Domino Server Names:

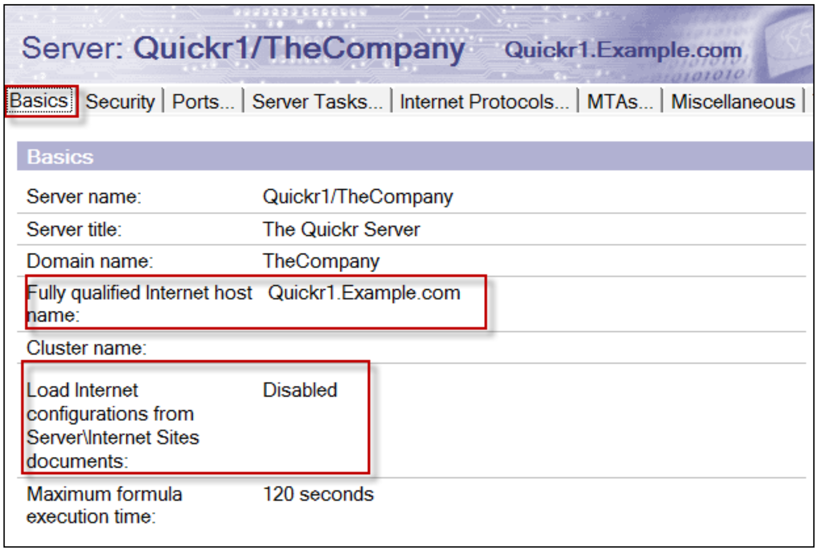
Windows single sign-on integration (if available): Disabled

Token Expiration

Expiration (minutes): 30

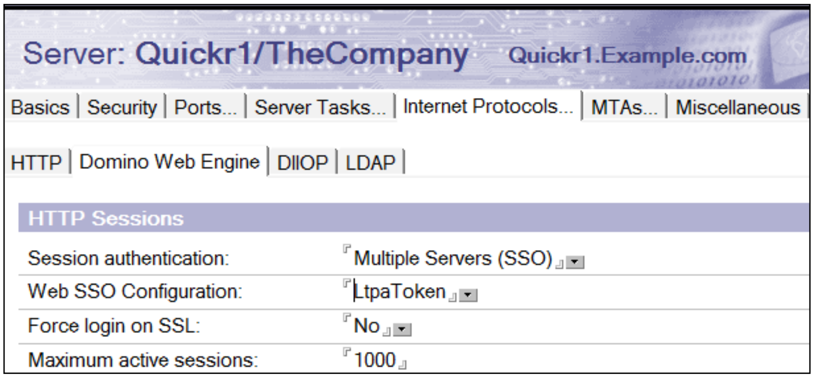
Idle Session Timeout: ☐ Enabled

7. The final step for MSSO is to assign the token to a server or a site document. As mentioned earlier, you will need to assign the MSSO to your server or a site document. Be careful and enter the correct name for the fully qualified host name. If you are using a server document to host the MSSO then set the **Load Internet Configuration from Server/Internet Sites document**—this will be set to **Disabled** for the server and **Enabled** for site documents:


Server: Quickr1/TheCompany
Quickr1.Example.com
Basics
Security
Ports...
Server Tasks...
Internet Protocols...
MTAs...
Miscellaneous
Basics

| | |
|---|---|
| Server name: | Quickr1/TheCompany |
| Server title: | The Quickr Server |
| Domain name: | TheCompany |
| Fully qualified Internet host name: | Quickr1.Example.com |
| Cluster name: | |
| Load Internet configurations from Server\Internet Sites documents: | Disabled |
| Maximum formula execution time: | 120 seconds |

The following screenshot shows your final step. In the **Domino Web Engine** tab, select the **Multiple Single Sign on** option for the **Session authentication** field. This will then display a dialog box showing the LTPA tokens that you created. Select the one that matches your Internet domain name:


Server: Quickr1/TheCompany
Quickr1.Example.com
Basics
Security
Ports...
Server Tasks...
Internet Protocols...
MTAs...
Miscellaneous
HTTP
Domino Web Engine
DIIOP
LDAP
HTTP Sessions

| | |
|---|---|
| Session authentication: | Multiple Servers (SSO) |
| Web SSO Configuration: | LtpaToken |
| Force login on SSL: | No |
| Maximum active sessions: | 1000 |

Now the server is configured for MSSO. Restart HTTP (or the Domino Server).

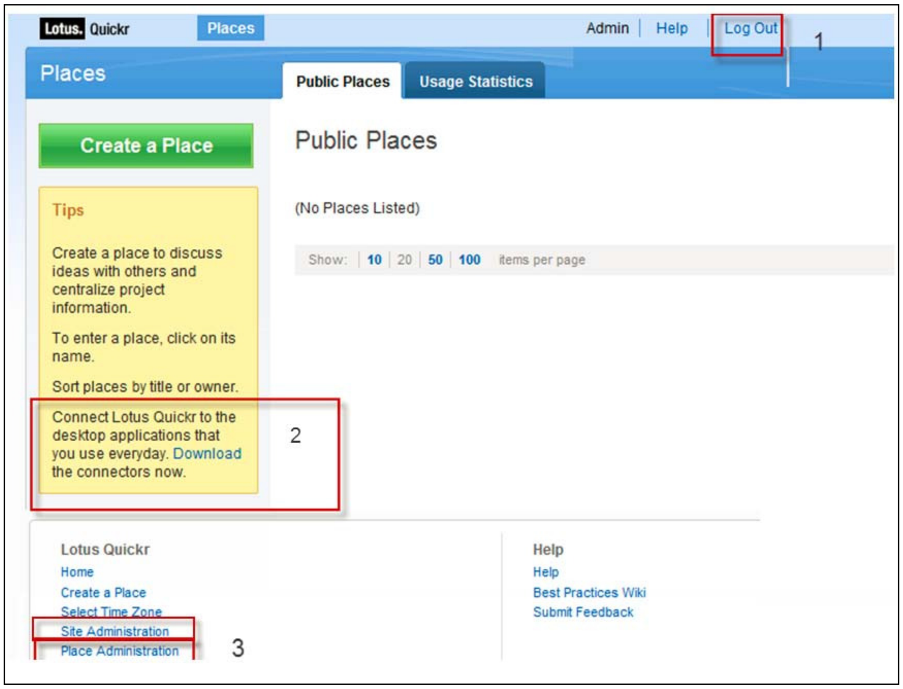
# Configuring Quickr Domino Server settings

So far, you have set up Domino, Quickr, and MSSO. Now, it is time to configure the Quickr Settings. The following steps describe this process:

Start with the following URL:

`http://quickr1.example.com/LotusQuickr/lotusquickr/Main.nsf/`

You will see the following screenshot:


Lotus. Quickr
Places
Admin
Help
Log Out
1
Places
Public Places
Usage Statistics
Create a Place
Public Places
Tips
(No Places Listed)
Show: 10 20 50 100 items per page
Create a place to discuss ideas with others and centralize project information.
To enter a place, click on its name.
Sort places by title or owner.
Connect Lotus Quickr to the desktop applications that you use everyday. Download the connectors now.
2
Lotus Quickr
Home
Create a Place
Select Time Zone
Site Administration
Place Administration
3
Help
Help
Best Practices Wiki
Submit Feedback

As shown in the preceding screenshot, there are three important points on this screen. They are:

- The login/logout tab. This is how you manage the Quickr Server. Use the Administration password that you set as part of the Quickr install (Marked as **1** in the preceding screenshot).
- There is a link to download the Lotus Connections Connectors (Marked as **2** in the preceding screenshot).
- If you are authenticated then you will see the Administration link. This link does not display unless you have authenticated to the Quickr Server.

You will see there are two basic areas of Administration:

- **Place Administration**: This link provides the ability for the Administrator to manage the sites, enable policies, and locked out sites.
- **Site Administration**: This link provides the ability for the Administrator to manage the complete Quickr Server. This includes Security, Directory links, and other interesting settings such as file size.

## Directory integration

After you have installed Quickr, there is some additional configuration required, depending on the intended usage. They are:

- **User/group directory configuration** is used to control the authorization and authentication of the environment.
- **Sametime integration** is used to enable presence awareness within the Quickr places.
- **QPServlet configuration** is used for WebSphere Portal integration.

The user/group directory configuration allows you to select one of two directory types:

- **Lotus Domino Directory** allows users and groups to be stored in the `names.nsf` database (public address book) and corresponding directories surfaced via directory assistance.
- **LDAP directory** allows for users in a supported native LDAP directory (for example, Domino, IBM Tivoli Directory Server, Microsoft Active Directory, Novell Directory, or Sun One Directory). This configuration allows for the refinement of the settings used to interact with the LDAP source.

## Application development

The final integration component of Quickr with services for WebSphere Portal and Domino comes in the area of application development. As Quickr is built on top of a Domino foundation, it is possible to use traditional Domino development techniques to customize and extend it in many ways. Developers can use the standard Lotus Developer client to extend the use of Quickr places.

## Quickr with services for WebSphere Portal

The WebSphere Portal-based edition of Quickr represents a significant application in the Web 2.0 space. It heavily leverages these technologies to bring an industry-leading collaboration experience. This product expands on the capabilities originally created from IBM Workplace Collaboration Services and IBM Workplace Services Express.

## Installing Lotus Quickr services

The installation of Quickr services for the WebSphere Portal server has been optimized for ease of deployment. There are three installation types that are available in the setup program:

- **Departmental/Express** provides the fastest deployment. The server is fully deployed with all necessary components including DB2.
- **Advanced Single Server** allows for additional options during setup for future expansion.
- **Advanced Enterprise Cluster** allows for a base installation that is intended for a clustered deployment.

Additional details about the product installation are available in the Quickr administration guide.

## Integrating Sametime for Quickr WebSphere Portal

The use of awareness within Quickr services for WebSphere Portal is configured in the same way as any other WebSphere Portal installation:

- Configure the Sametime server using the LDAP directory. It is possible to use the native Domino directory for Sametime, but integration is easier if WebSphere Portal/Quickr and Sametime are both using LDAP.
- Configure SSO between WebSphere Portal/Quickr and Sametime. This is accomplished by exporting the LTPA token value from the WebSphere application server and importing it into the Domino domain hosting the Sametime servers.
- Update the `wpconfig.properties` file for WebSphere Portal/Quickr with the values for the Sametime server. This includes the following:
    - Sametime host name
    - Sametime protocol (HTTP)
    - Sametime http port

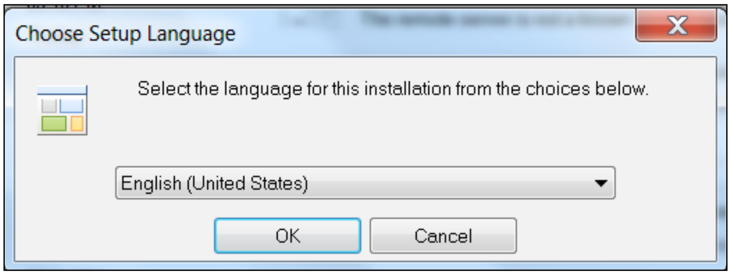
- There are additional configuration options available in the `CSEnvironment.properties` file to facilitate name mapping, if a different directory is used for Sametime.
- Run the `WPSconfig.bat/.sh lcc-configure-sametime` configuration program to name the necessary system changes.

# Lotus Quickr Connectors

One of the key features of Quickr is the openness provided by the connector architecture. These connectors allow for direct interaction with the Quickr servers independently of the backend architecture (WebSphere Portal/Domino).

To install the Lotus Quickr Connectors, you will need to complete the following steps:

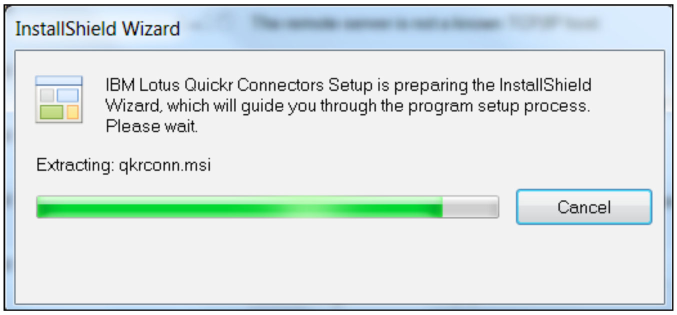
1. The installation begins via the large link on the main page of the Quickr place page. This link will initiate the download and installation of the connector's package. This is handled as a standard install package starting at the welcome screen. The next dialog box will ask about language. The following screenshot shows **English (United States)** as the selected language:



Select the language for this installation from the choices below.

English (United States)

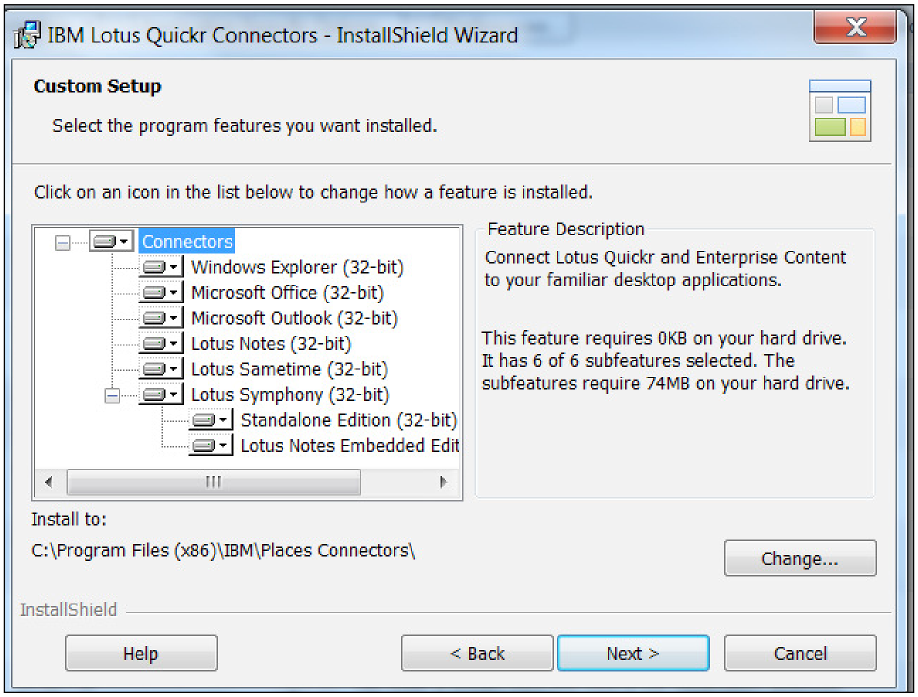
2. After you click on **OK,** the install will start. You will see the **InstallShield** Wizard and the installer will be installed:


InstallShield Wizard
Cancel

IBM Lotus Quickr Connectors Setup is preparing the InstallShield Wizard, which will guide you through the program setup process. Please wait.

Extracting: qkrconn.msi

3. The next step is for you to select what features. The following screenshot shows all of the features being installed, but normally you just install the features that you will use. Select the connector type and click on the **Next** button:


IBM Lotus Quickr Connectors - InstallShield Wizard
Custom Setup
Connectors
Windows Explorer (32-bit)
Microsoft Office (32-bit)
Microsoft Outlook (32-bit)
Lotus Notes (32-bit)
Lotus Sametime (32-bit)
Lotus Symphony (32-bit)
Standalone Edition (32-bit)
Lotus Notes Embedded Edit
Feature Description
Install to:
Change...
InstallShield
Help
< Back
Next >
Cancel

Select the program features you want installed.

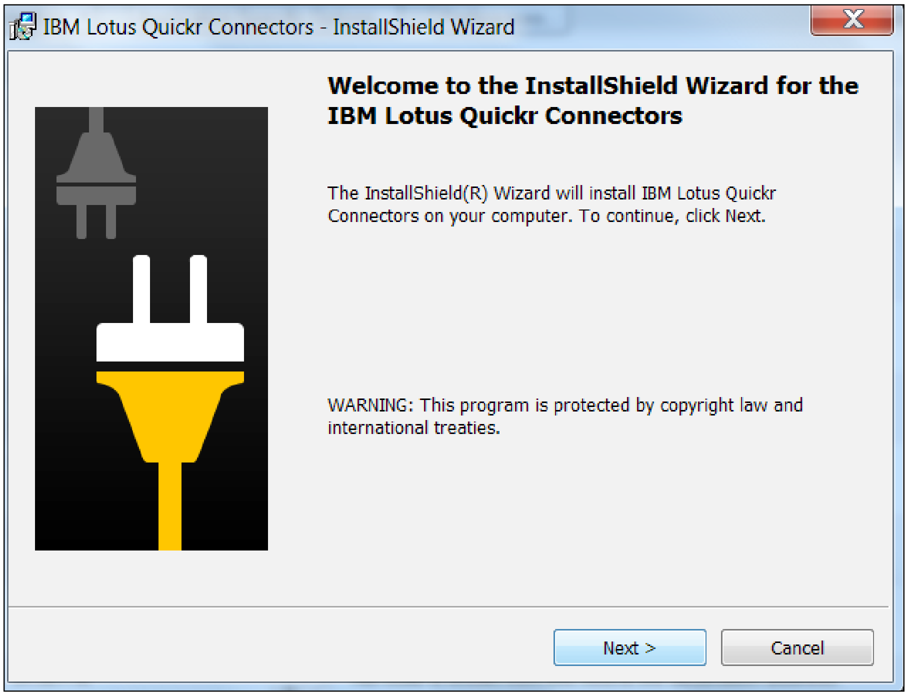
Click on an icon in the list below to change how a feature is installed.

Connect Lotus Quickr and Enterprise Content to your familiar desktop applications.

This feature requires 0KB on your hard drive. It has 6 of 6 subfeatures selected. The subfeatures require 74MB on your hard drive.

C:\Program Files (x86)\IBM\Places Connectors\

4. Once you have selected your connectors, the installer will install each of the connectors for you; click **Next** to continue:



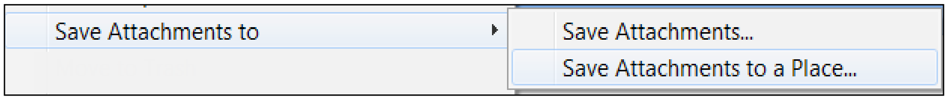
IBM Lotus Quickr Connectors - InstallShield Wizard

**Welcome to the InstallShield Wizard for the IBM Lotus Quickr Connectors**

The InstallShield(R) Wizard will install IBM Lotus Quickr Connectors on your computer. To continue, click Next.

WARNING: This program is protected by copyright law and international treaties.

5. The connector will now be installed on your machine. Now that the Quickr Connector is configured, it will be visible in the various applications. Within Lotus Notes, Quickr connectors are visible from the **Actions** menu. This allows interaction with the Quickr services to provide links to content and save file attachments into the content store:



6. The following screen is called **Insert Link from Places**. It allows a user to send a link to a document in the Quickr content store instead of putting it in an e-mail message. This allows different users to access a central copy of the content. After the link has been added to the e-mail message, others can use it to open the content:

Insert Link from Places

The connector for Sametime allows access to Quickr content stores. It is implemented as a Lotus Expeditor plugin within the Sametime 8.5.1 client (and higher). The connector for Microsoft Office provides access to Quickr document management functions directly from within Office applications. As you can see, the Lotus Quickr connectors provide for tight integration into the content. This will give the end users a choice as to how they work and interact with their content.

# Lotus Sametime

**Lotus Sametime** is an enterprise client instant-messaging and web-conferencing product that has been available for many years. Starting with version 8.5.1, it extended these capabilities with a revised web conference meeting center client and Lotus Expeditor-based instant messaging client.

The product is a core component of the unified communications and collaboration strategy. This represents an integrated messaging solution that includes instant messaging, voice, and video.

The client product supports not only Windows, but also Linux and Mac OS X. These additional client platform choices expand its enterprise reach.

The 8.5.1 product release introduced a new server platform with Linux. This has been a long-sought-after operating system for the server platform.

# Installing Lotus Sametime

The installation of Lotus Sametime 8.5 requires Domino 8.5 or higher. The Domino server is used for the HTTP services, configuration, and meeting data storage. A slight variation of this is the **Enterprise Meeting Server** (**EMS**) product. It extends the capabilities of Sametime with the WebSphere application server as the frontend. The main difference is that EMS provides meeting services fail-over. While the WebSphere application server is used as the frontend, the engine driving the meetings themselves is a standard Sametime server running on Domino.

The installation process involves running the Sametime server installation wizard on an existing server. After you answer a few simple questions, the installation will complete in a matter of minutes. After the base installation has been completed, additional customization is possible.

One important thing to note is that Sametime Connect clients are not installed as part of the Sametime server. The installation programs for these must be installed after the base server install.

There is a Sametime SDK toolkit that can be installed as part of the base package. This provides API services and sample applications to build integrated solutions.

## Directory integration

The base installation itself is fairly simple with a minimal number of questions. The key difference is the directory-type selection of either Domino or LDAP. Regardless of user directory type, the base functions of Sametime are the same.

If the **Domino Directory** is used, then the configuration is very straightforward. The Sametime server needs a replica copy of the Domain Directory. It also needs a Web SSO document defined to function correctly. This is done by default as part of the Sametime setup, if such a document does not already exist.

If an **LDAP Directory** is used, then the configuration can be a bit more complicated. During the installation process, you will be asked for the LDAP server host name and port number. Further configuration is handled via the Sametime administration web interface or by editing the `stconfig.nsf` database via a Notes client.

When an LDAP Directory is used in Domino, it has two interface points. The first is for instant messaging. These services directly access the LDAP server and don't use Domino. The second is for meeting services. These use the Domino Directory's assistance database to interact with the LDAP source. The reason behind this is that meeting services leverage the Domino authentication services and database ACLs to manage access.

## Application integration

Lotus Sametime has many integration points. This is in addition to the Lotus Expeditor-based client. The integration points are as follows:

- Notes Sideshelf
- Notes view/document integration (for instance, Inbox)
- Quickr
- The WebSphere Portal Server

This list includes a few integration points that are available. The key is that the Sametime services can be integrated into virtually any application that can use the API services it provides.

## Lotus Connections

Lotus Connections represents a new classification of applications within the enterprise. It is targeted as a social network tool to allow for dynamic end user collaboration through Web 2.0 tools and technologies.

The product has eleven key areas that it brings into an environment. Each of these can be deployed separately or mixed and matched as needed. However, to fully take advantage of this product, all eleven should work in unison. The eleven areas are as follows:

- **Home Page**: This is a single interface to display all of the other connection features.
- **Profiles**: This provides personal information about end users within the environment. This can include reporting structures, contact information, and associated content within the remaining four components.
- **Communities**: This provides a collaboration environment based upon the wiki structure.
- **Blogs**: This provides basic blogging services for an enterprise.
- **Files**: A place where end users can share, post and discover documents. This is a great place to store presentations, images, and more.
- **Social**: You can get updates from across your defined social network through the consolidated home page, microblogs, and tags.
- **Wikis**: Create web content together, edit, and publish it in a convenient location with access that you manage.
- **Social Analytics**: Work with people who share common interests and expertise and expand your social network with widgets.
- **Bookmarks**: Save, share, and discover bookmarks through this social bookmarking service.
- **Forums**: Exchange ideas with, and benefit from, the expertise of others.
- **Activities**: Provides a new task-based work management tool. An activity is a discrete work stream that can consist of one or more components and can involve many individuals. An example activity would be the creation of a book such as this. The book itself would be the activity with many active participants. Then, as content is created, reviewed, and updated, those activities can be managed in the context of the activity.

The architecture and installation for Lotus Connections is based on the WebSphere application server. For additional information, see the Lotus Connections administration guide.

# IBM Learning Widget

The IBM Lotus Learning Widget for IBM Lotus Notes is a new sidebar widget that is used to display learning materials inside your IBM Lotus Notes client. This new Widget is available for version 8.0.1 or higher.

The Learning Widget for IBM Lotus Notes gives you access to a variety of learning features including:

- **Videos**: You can display videos that will focus on a specific skill and/or topic
- **Web Seminar**: This is a presentation based learning activity that is delivered as a self-paced activity
- **Reference Cards**: Reference cards are provided as a quick reference for end users to quickly find how to execute a common activity in a product

There are many more features, too. They are as follows:

- Task-based demonstrations
- Tutorials
- Product tours
- Online courses

# IBM Multimedia Library

IBM also provides a comprehensive library for multimedia training for its products, these include:

- The Multimedia Library for Lotus Quickr 8.2/8.5x
- The Multimedia Library for IBM Sametime 8/8.5x
- The Multimedia Library for Lotus Notes 8/8.5x
- The Multimedia Library for IBM Connections
- The Multimedia Library for iNotes

You can check the demos for these libraries at the following URL:

`http://www-01.ibm.com/software/lotus/training/multimedialibrary.html`

# New integration features in Lotus Notes and Domino 8.5.3

There are many new integration features in Lotus Notes and Domino 8.5.3, including the following:

- Domino Designer moves to Eclipse
- Xpages
- Themes in Xpages
- Components based on Xpages
- Composite Application Editor
- Drag and Drop enhancements

# Domino Designer moves to Eclipse

Starting with Lotus Notes 8.5, the Domino Designer is now hosted on the Eclipse platform for Lotus Notes. As a result, the Eclipse application development platform provides the same Eclipse elements that are included in the Lotus Notes and Domino client. XPages are one of the design elements available from the Applications Navigator.

# XPages

The XPage Designer lets you create Web 2.0 enabled pages based on the JSF technology. Specific features of XPages include:

- AJAX enabled
- Fully extensible using custom controls
- Support for web clients
- Full support for styling using CSS
- JavaScript scripting language support for client-side and server-side action
- Direct access to Java libraries on the server
- Easy page design using pre-built controls

# Themes in XPages

Starting with Lotus Notes 8.5, there are themes available for XPages. These are used for server-side customization of HTML. Themes can be set globally and applied to all applications or a single application on a server.

## Components based on XPages

Starting with Lotus Notes Designer 8.5.2, components based on XPages can now be developed with Domino Designer.

## Composite Application Editor

Starting with Lotus Notes Designer 8.5.2, the following updates (and support elements) have been made to the Composite Application Editor:

- Palette support for the Notes View containers
- Managed Browser/Browser Container support
- Notes Document Container support
- Symphony container support
- Host On-Demand (HOD) container support
- Inline editing support
- Custom action support
- Support for adding widgets from a catalog to the component palette

## Drag-and-drop enhancements

Starting with Designer 8.5.2, developers can now drag and drop from the XPages Controls and Data palettes to the Source tab of the XPages editor.

Additionally, with Lotus Notes Designer 8.5.2 (and higher) you can manage and use the following:

- Design element filtering
- Working sets
- Eclipse-based HTML editor
- Enhanced Application Icon image
- Application Properties editor
- Version
- Application Signing directly in the designer

# Summary

In this chapter, we looked at several add-on products that are typically integrated into a Lotus Notes/Domino environment. Each of the add-on products represents a key component for the software environment in your company.

Be sure and check out support add-on features at the following URL:

`http://www-01.ibm.com/support/docview.wss?uid=swg27013116#Lotus%20Notes%20Diagnostic`

As we mentioned previously, there are a number of other Lotus/IBM products that can be integrated into Notes/Domino. For more information, visit `http://www.lotus.com`. In the next chapter, we will cover the Domino Configuration Tool (DCT).

# 11

# Domino Configuration Tuner

Lotus Notes/Domino 8.5 saw the introduction of a new, free tool that allows administrators to review their configuration settings against a predetermined set of best practices. The **Domino Configuration Tuner** (**DCT**) is a tool that runs in the Notes client or Domino Administration client against a user defined set of servers. When a DCT scan is run, rules are evaluated comparing existing setting values against setting values listed in the best practices catalog. Rules are written to evaluate for specific Domino versions and operating systems. The rules will also differentiate between 32 and 64 bit operating systems and Domino versions. This chapter will cover the following topics:

- Obtaining and setting up the DCT
- Navigating and using the DCT
- Life cycle and participation
- Usage patterns and practices
- Troubleshooting

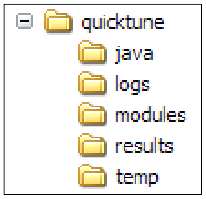
## Obtaining and setting up the DCT

To run the DCT, you must be using a Notes or Domino Administration client version 8.0 or later. These versions and later contain the required **Java Runtime Environment** (**JRE**) for execution. Everything else that you need to set up DCT is contained in the Notes database template file—`dct.ntf`. The template is shipped as part of both the Domino Administration Client and Domino Server. It is also available as part of the **IBM Support Assistant** (**ISA**) Lite and can be downloaded for free from the IBM Support site at the following URL:

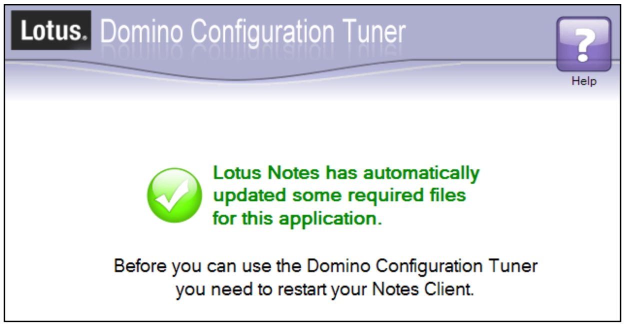
`https://www-304.ibm.com/support/docview.wss?q1=dct&dc=D400&rs=0&context=SWA00&uid=swg24019358&cs=utf-8&wv=1`

Setting up the DCT is equally straightforward. If you are using the Domino Administration Client, click the **Server** tab; you will find the Domino Configuration Tuner tree entry on the **Analysis** sub-tab. Clicking on this entry will automatically create `dct.nsf` on the client machine. You will also find a new entry similar to this in the client machine's `notes.ini` file, `DCT_FILE_PATH=C:\Notes\Data\DCT.nsf`.

All of the files required to run DCT are contained within the template, and are deployed when `dct.nsf` is created. A new **quicktune** directory structure is created under the `Notes\Data` directory on the client machine, as shown in the following screenshot:



When the database opens, the license is displayed on the Help/About page. If you do not want to accept the terms, close and delete the database. You will also need to delete the `quicktune` directory and all subdirectories, as well as the `DCT.jar` file, located under `notes\jvm\lib\ext`. To accept the terms, close the Help/About page. The deployment of the needed Java files will require that the Notes client gets restarted, as shown in the following screenshot:



Lotus Notes has automatically updated some required files for this application.

Before you can use the Domino Configuration Tuner you need to restart your Notes Client.

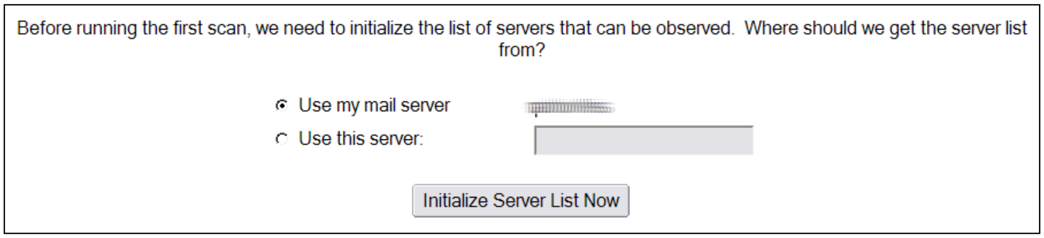
# Navigating and using DCT

The welcome screen of DCT simply indicates that the database has been properly set up. The header section contains several buttons that allow you to perform different actions within the tool or to see various settings in the tool. These buttons are listed as follows:

- **Run New Scan**
- **View Results**
- **Check for Updates**
- **Preferences**
- **Help**

# Run New Scan

The first time the **Run New Scan** button is clicked, you will be prompted to build a server list. The server list will be pulled from your home mail server unless you specify another server, as shown in the following screenshot:



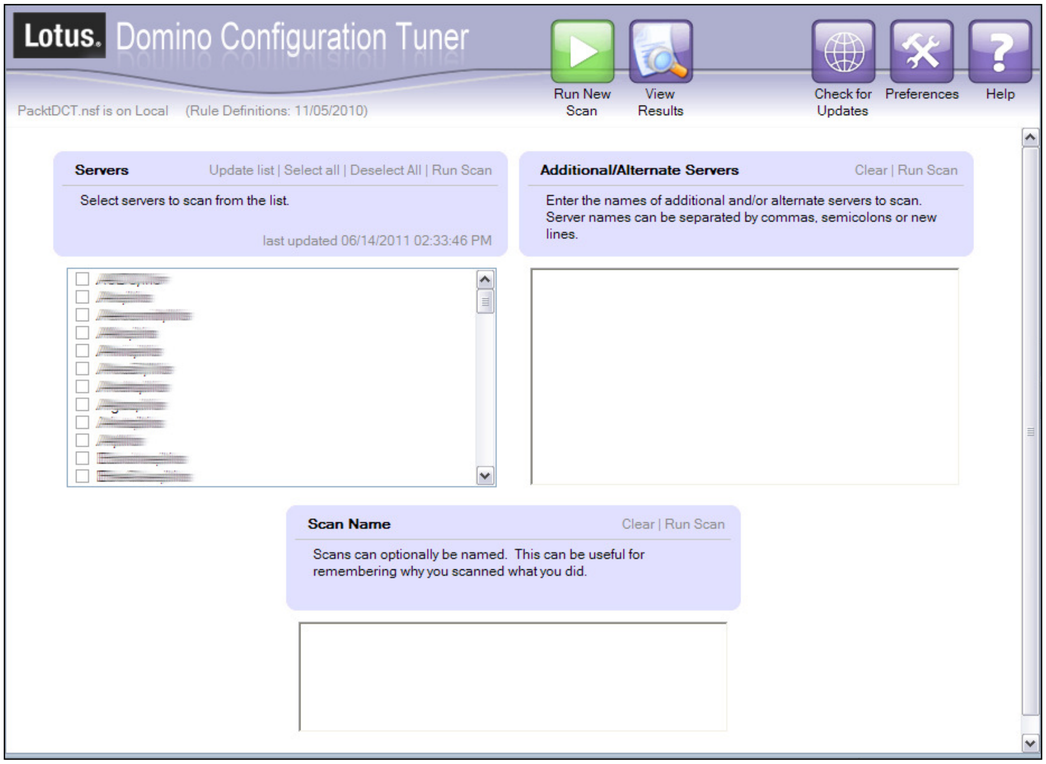
Before running the first scan, we need to initialize the list of servers that can be observed. Where should we get the server list from?

● Use my mail server

○ Use this server:

Once the server list has been built, the New Scan screen will be displayed. Servers in the list that was just created are now selectable in the left pane, while the right pane allows space for the inclusion of servers from other domains. Server names being entered manually must be entered in abbreviated format; for example `MyServer/IBM`.

> You must have at least `VIEW_ONLY_ADMIN` access to the servers that you wish to scan.


Lotus. Domino Configuration Tuner
Run New Scan
View Results
Check for Updates
Preferences
Help
Servers
Update list | Select all | Deselect All | Run Scan
Additional/Alternate Servers
Clear | Run Scan
Scan Name
Clear | Run Scan

PacktDCT.nsf is on Local (Rule Definitions: 11/05/2010)

Select servers to scan from the list.

last updated 06/14/2011 02:33:46 PM

Enter the names of additional and/or alternate servers to scan. Server names can be separated by commas, semicolons or new lines.

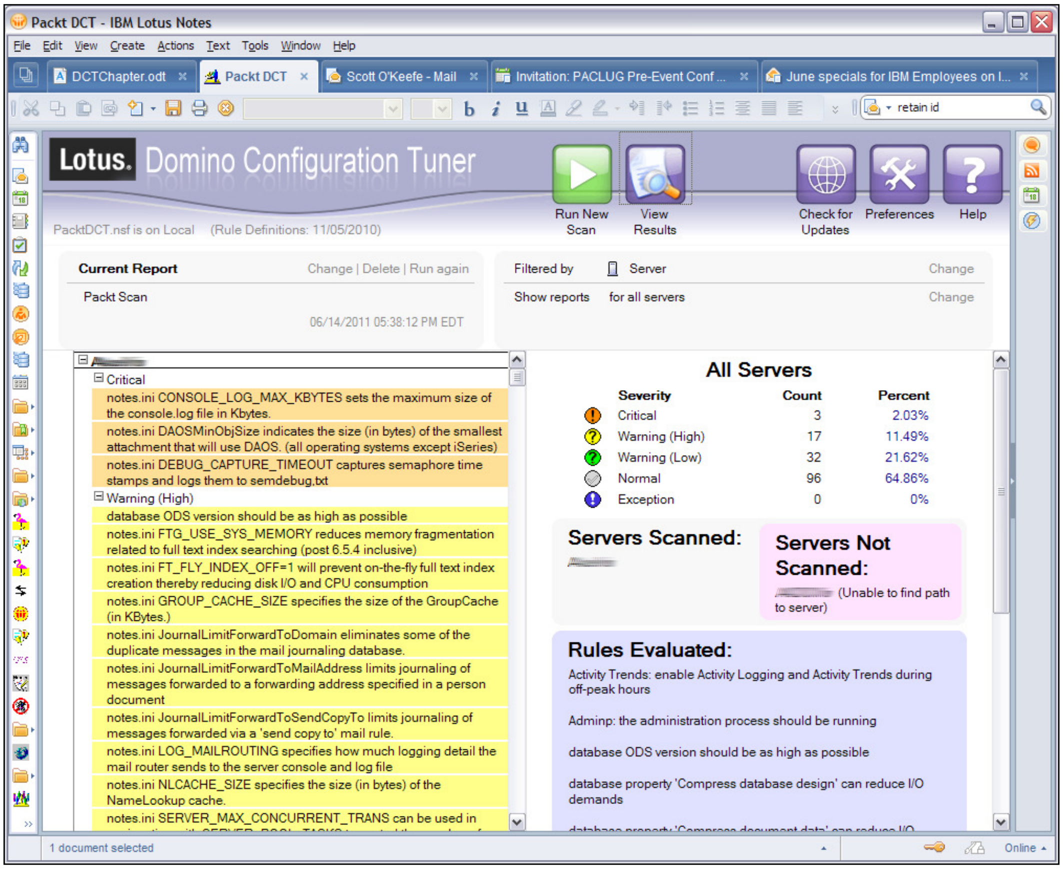
Scans can optionally be named. This can be useful for remembering why you scanned what you did.

Running a DCT scan in this manner allows servers from multiple domains to be included in a single scan. After selecting and/or entering the server names for scanning, you can provide a name for the scan, which will be displayed in the scan results. Naming allows you to differentiate your scans. Your regularly scheduled scans might be named "Monthly Maintenance", while if you are trying to understand why a set of your servers are exhibiting different behavior for the http task, you might name it "HTTP Behavior".

Following the configuration of the scan, click on **Run Scan** in any of the blue boxes and the scan will begin. DCT scans are run by a background agent, which allows you to continue to do other work in your chosen client. When the scan is completed, or if it fails for any reason, the completion/failure will be indicated in the client's status bar, either as **DCT Scan Completed. Please View Results** or **>>> DCT Scan Failed - Please Check Status Bar History and Java Debug Console for Details <<<**.

# View Results

If the scan was successful, then the **View Results** button will display results for the executed scan. Otherwise, it will display the results of the last successful scan. The results provide an abundance of data at various levels of detail. Looking at the initial or overall results screen, you will see high-level information about the scan including the scan name, how the reports are currently filtered, statistics about the scan, a list of the rules that were evaluated and against which servers, as shown in the following screenshot:


Packt DCT - IBM Lotus Notes
File Edit View Create Actions Text Tools Window Help
DCTChapter.odt
Packt DCT
Scott O'Keefe - Mail
Invitation: PACLUG Pre-Event Conf ...
June specials for IBM Employees on I...
retain id
Lotus. Domino Configuration Tuner
Run New Scan
View Results
Check for Updates
Preferences
Help
PacktDCT.nsf is on Local (Rule Definitions: 11/05/2010)
1 document selected
Online

**Current Report** Change | Delete | Run again

Packt Scan

06/14/2011 05:38:12 PM EDT

Filtered by Server Change

Show reports for all servers Change

[redacted]

Critical

- notes.ini CONSOLE_LOG_MAX_KBYTES sets the maximum size of the console.log file in Kbytes.
- notes.ini DAOSMinObjSize indicates the size (in bytes) of the smallest attachment that will use DAOS. (all operating systems except iSeries)
- notes.ini DEBUG_CAPTURE_TIMEOUT captures semaphore time stamps and logs them to semdebug,txt

Warning (High)

- database ODS version should be as high as possible
- notes.ini FTG_USE_SYS_MEMORY reduces memory fragmentation related to full text index searching (post 6.5.4 inclusive)
- notes.ini FT_FLY_INDEX_OFF=1 will prevent on-the-fly full text index creation thereby reducing disk I/O and CPU consumption
- notes.ini GROUP_CACHE_SIZE specifies the size of the GroupCache (in KBytes.)
- notes.ini JournalLimitForwardToDomain eliminates some of the duplicate messages in the mail journaling database.
- notes.ini JournalLimitForwardToMailAddress limits journaling of messages forwarded to a forwarding address specified in a person document
- notes.ini JournalLimitForwardToSendCopyTo limits journaling of messages forwarded via a 'send copy to' mail rule.
- notes.ini LOG_MAILROUTING specifies how much logging detail the mail router sends to the server console and log file
- notes.ini NLCACHE_SIZE specifies the size (in bytes) of the NameLookup cache.
- notes.ini SERVER_MAX_CONCURRENT_TRANS can be used in

**All Servers**

| | Severity | Count | Percent |
|---|---|---|---|
| ! | Critical | 3 | 2.03% |
| ? | Warning (High) | 17 | 11.49% |
| ? | Warning (Low) | 32 | 21.62% |
| ✓ | Normal | 96 | 64.86% |
| ! | Exception | 0 | 0% |

**Servers Scanned:**

[redacted]

**Servers Not Scanned:**

[redacted] (Unable to find path to server)

**Rules Evaluated:**

Activity Trends: enable Activity Logging and Activity Trends during off-peak hours

Adminp: the administration process should be running

database ODS version should be as high as possible

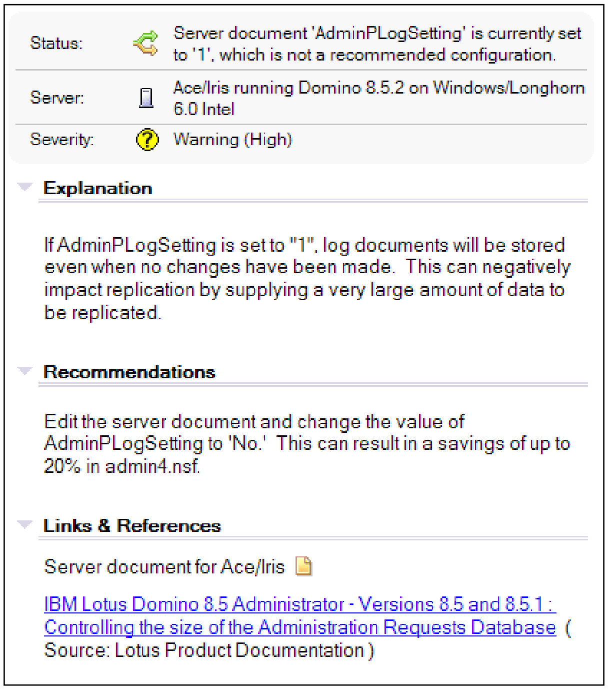
database property 'Compress database design' can reduce I/O demands

The file name of the current database and the date of the rule set in use are shown in the header bar. In the **Current Report** section, the name of the scan is displayed, as well as the date and time that the scan was run. Also, in this section are options such as **Change**, **Delete** or **Run again**. Clicking on **Change** will display a dialog box that will allow you to select a different result set to look at. Clicking on **Delete** will delete the current scan results. You will need to click on **Change** to view other results, or the **Run New Scan** button in the header to initiate a new scan. Clicking on **Run again** will run a new scan with the same parameters as the scan whose results you are viewing.

The **Filtered by** control allows you to vary how you view the results. The default view is by server, and includes all servers. Other choices you have are to view by rule or severity. Additionally, each of these options, including filtering by server, allow you to filter to a single instance of the chosen type. So, you could switch to **All Severities**, and then narrow it down further to only critical issues (select the **Critical** option) in your Domino domain.

When looking at overall results, the lower section of the results displays a view on the left-hand side and other high-level information on the right-hand side. The default view will be categorized by server, then by severity. The right-hand side shows an overview of how your servers fared in the scan. Statistics are shown above a list of the servers that were scanned, and—if any failed—the list of servers not scanned and the reason why they were not scanned. Finally, the list of rules that is evaluated in the scan is presented. Clicking on any of the result documents in the lower-left section will display a single report.

Individual results will always provide an indication of what the mismatched setting is, as well as what the server's Domino version and operating system are.



Status: Server document 'AdminPLogSetting' is currently set to '1', which is not a recommended configuration.

Server: Ace/Iris running Domino 8.5.2 on Windows/Longhorn 6.0 Intel

Severity: Warning (High)

**Explanation**

If AdminPLogSetting is set to "1", log documents will be stored even when no changes have been made. This can negatively impact replication by supplying a very large amount of data to be replicated.

**Recommendations**

Edit the server document and change the value of AdminPLogSetting to 'No.' This can result in a savings of up to 20% in admin4.nsf.

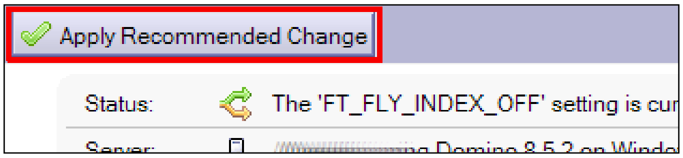
**Links & References**

Server document for Ace/Iris

IBM Lotus Domino 8.5 Administrator - Versions 8.5 and 8.5.1 : Controlling the size of the Administration Requests Database ( Source: Lotus Product Documentation )

The severity of the condition is also indicated. An explanation of the setting and the expected value is displayed, as well as a recommendation for how to remedy the setting and what the default value is, if there is one. When the setting in question relates to a database list—ODS level settings, for example, the list of affected databases will also be displayed. Links to resources are provided, too. These may point to Notes/Domino wiki postings, IBM RedBooks, RedPapers or Technotes. When the rule is related to a server document setting, a doclink to the server document will be included.

Recent updates to DCT include the availability of the often requested "make it so" button, labeled as **Apply Recommended Change**. This button is available for `notes.ini` setting rules only, and executes a `set config` remote console command.



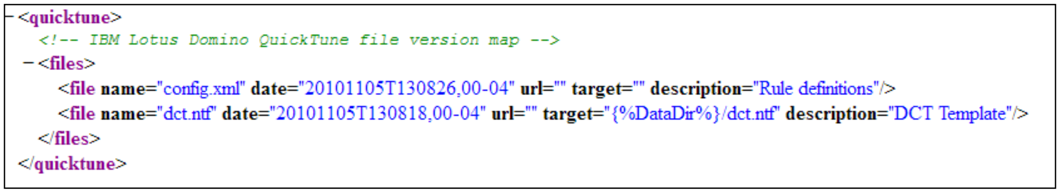
Status: The 'FT_FLY_INDEX_OFF' setting is cur

Clicking on the **Apply Recommended Change** button will fire a dialog box indicating which setting will be changed and on which server. If you click on the **OK** button, the remote console command will be issued. If you click on the **Cancel** button, no changes will be made. Finally, if there is a server configuration document with conflicting `notes.ini` settings, the server configuration documents `notes.ini` settings will supersede those set by DCT.

If you would like to view your DCT results outside of the DCT database, you can run the `Export to HTML` action, which will create the file `report.html` in the `quicktune` directory.

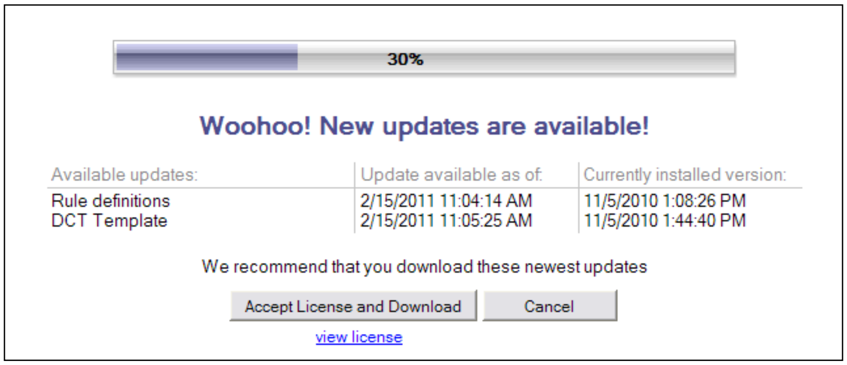
# Checking for Updates

By default, the `quicktune` directory will contain the `java` directory, `config.xml` and `version.xml`. The `version.xml` file is one of the files stored on the support site and contains information about the rule set, as well as the `DCT.NTF` itself. The following screenshot shows the contents of the `version.xml` file:



```
- <quicktune>
    <!-- IBM Lotus Domino QuickTune file version map -->
  - <files>
      <file name="config.xml" date="20101105T130826,00-04" url="" target="" description="Rule definitions"/>
      <file name="dct.ntf" date="20101105T130818,00-04" url="" target="{%DataDir%}/dct.ntf" description="DCT Template"/>
    </files>
  </quicktune>
```

The **Check for Updates** button queries the IBM Support site to see if there are any new rules and/or a new `dct.ntf` available for download. The time date stamp of `config.xml` is compared to the value stored in `version.xml`, while the `dct.ntf` value in `version.xml` is compared to the `$TemplateBuildDate` in the `$TemplateBuild` shared field. If there are new updates available, you will see a screen indicating so, as shown in the following screenshot:



Woohoo! New updates are available!

| Available updates: | Update available as of: | Currently installed version: |
|---|---|---|
| Rule definitions | 2/15/2011 11:04:14 AM | 11/5/2010 1:08:26 PM |
| DCT Template | 2/15/2011 11:05:25 AM | 11/5/2010 1:44:40 PM |

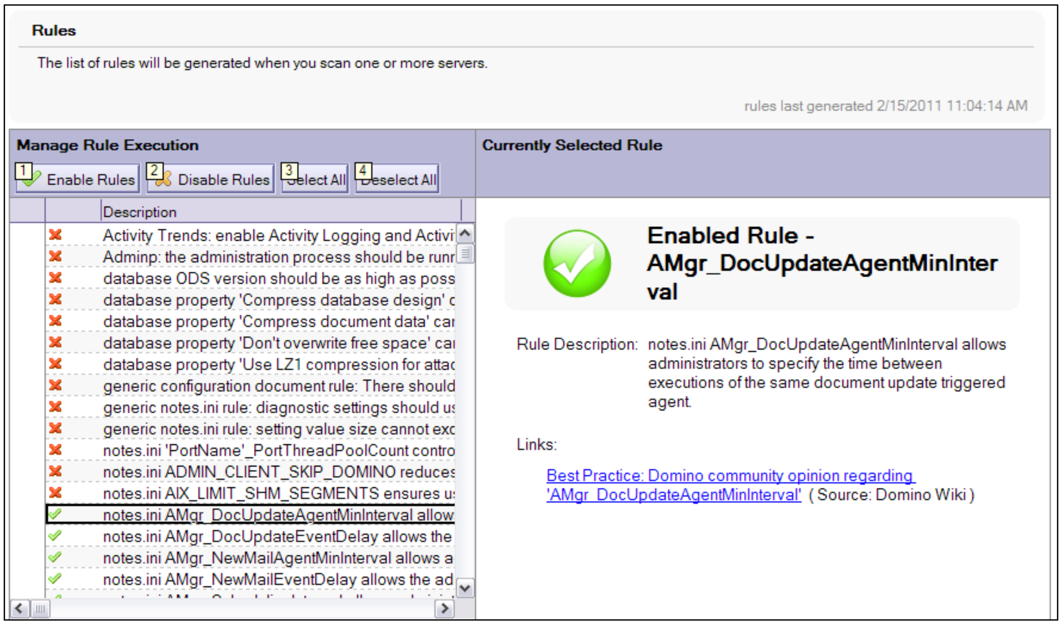
We recommend that you download these newest updates

Click on the **Accept License and Download** button to get the new files. When you have finished downloading the files, DCT will automatically refresh the design of the current `dct.nsf`. If you have multiple DCT databases—maybe you are managing multiple domains — the other databases will have to have their designs refreshed manually. Once the design refresh has completed, you will need to close the current `dct.nsf` and re-open it.

> If you create a new DCT database in either the Notes or Administration client by going to **File** | **New**... it is important that you leave **Inherit future design changes** selected.

## Preferences

The **Preferences** button will open a page (shown in the following screenshot) that allows you to manage which rules are active at any given time for a scan. This allows you to fine tune your scans so that if you want to look at a specific set of servers, to see how the settings related to the Agent Manager are configured, you can do so. The list of rules is generated on the first scan execution, so opening this page prior to the first scan will yield a blank screen:



The list of rules will be generated when you scan one or more servers.

rules last generated 2/15/2011 11:04:14 AM

| | Description |
|---|---|
| ✗ | Activity Trends: enable Activity Logging and Activi |
| ✗ | Adminp: the administration process should be runr |
| ✗ | database ODS version should be as high as poss |
| ✗ | database property 'Compress database design' c |
| ✗ | database property 'Compress document data' car |
| ✗ | database property 'Don't overwrite free space' car |
| ✗ | database property 'Use LZ1 compression for attac |
| ✗ | generic configuration document rule: There should |
| ✗ | generic notes.ini rule: diagnostic settings should us |
| ✗ | generic notes.ini rule: setting value size cannot exc |
| ✗ | notes.ini 'PortName'_PortThreadPoolCount contro |
| ✗ | notes.ini ADMIN_CLIENT_SKIP_DOMINO reduces |
| ✗ | notes.ini AIX_LIMIT_SHM_SEGMENTS ensures us |
| ✓ | notes.ini AMgr_DocUpdateAgentMinInterval allow |
| ✓ | notes.ini AMgr_DocUpdateEventDelay allows the |
| ✓ | notes.ini AMgr_NewMailAgentMinInterval allows a |
| ✓ | notes.ini AMgr_NewMailEventDelay allows the ad |

**Enabled Rule - AMgr_DocUpdateAgentMinInterval**

Rule Description: notes.ini AMgr_DocUpdateAgentMinInterval allows administrators to specify the time between executions of the same document update triggered agent.

Links:

Best Practice: Domino community opinion regarding 'AMgr_DocUpdateAgentMinInterval' ( Source: Domino Wiki )

# Help

The **Help** button will display the three tabs of the Help page. The **Help Topics** tab includes information about installing and uninstalling DCT, as well as scanning instructions and troubleshooting. The **Rule Catalog** tab contains the current list of rules available, and the **Change Log** contains the list of fixes that have gone into the tool.

# Life cycle and participation

The lifecycle of DCT rules has a series of phases, with several opportunities for participation. The lifecycle is as follows:

- A Domino setting is identified internally or through customer engagement
- The setting is researched by IBM
- A new DCT rule is created based upon research results
- The rule is posted to the web for download
- Customers and/or internal users provide feedback

DCT is designed and intended as a participatory tool. There are numerous ways to communicate your thoughts and comments to IBM. You can comment on the Notes/Domino wiki where most of the DCT settings have an entry. You can also comment on Tuner Blog entries when new rule sets are released. The Notes/Domino forums are monitored regularly and are also a good place to voice your opinions and concerns.

The importance of participation to ensure that the rules that we execute continue to represent best practices cannot be overstated. For example, several settings which were previously recognized and reported by DCT are now default values in Domino 8.5.3. The following former `notes.ini` parameters are now handled and/or set by the server code to help servers perform better and provide better "first failure" data:

- The `GROUP_CACHE_SIZE` parameter is now set to 15360, or 15 megabytes. The default for this was previously 4 megabytes. IBM Support routinely recommended increasing the size.
- The `CONSOLE_LOG_ENABLED` parameter is now set to `1`, by default. This is another setting that IBM Support recommended following a server issue. Having this enabled, by default, will allow IBM Support to collect information on the first occurrence of an issue.
- The `CONSOLE_LOG_MAX_KBYTES` parameter now defaults to 204,800 or 200 megabytes. The default size of this was previously 1 megabyte. The console log runs in a circular manner, so that when the 200 megabyte limit is reached, the older entries will start to drop off.

- The `DEBUG_THREADID` parameter is now set to `1` so that the thread ID is automatically shown in the console and reported in the console log.
- The `DEBUG_CAPTURE_TIMEOUT` parameter now also defaults to `1`, allowing semaphore debugging information to be output to the console and written to the console log.

Changing these settings is a direct result of the usage of DCT and collaboration between customers, IBM Support, and IBM Development.

# Usage patterns and practices

There are patterns of usage that will allow you to leverage DCT to its maximum potential. You can manage multiple domains from a single DCT database, ensure server profiles or check for behaviors in specific areas of the servers you're scanning.

If you manage multiple domains, you have the option of running scans out of a single DCT database, or creating a separate DCT database for each domain. If you use the latter option, when presented with the "initialize server list" screen, choose **Use this server** and indicate a server name—in abbreviated format—from the desired domain.

DCT is also a great tool for detecting differences between server configurations. Specify a subset of servers and/or rules, and then run the scan. Review the results to determine where differences exist then modify settings as necessary to ensure that the subsets of servers are configured and performing similarly. This mode can be tweaked by selecting rules from different subject areas—for example, agent manager, HTTP, LDAP or debug settings—and comparing the results. Following result comparison, scans should be re-run to confirm your changes.

> It is recommended that DCT be run on a regular basis as part of your Domino maintenance schedule.

# Troubleshooting

DCT was designed to be straightforward and easy to use with minimal documentation needed. When difficulties arise, the solutions are easy to be found and implemented. Two of the more common issues are listed below. Additionally, the bottom of the **Help Topics** tab on the Help page has a section dedicated to troubleshooting.

If you experience performance issues with DCT, the `JavaMaxHeapSize` setting in the client `notes.ini` file may need adjustment. By default, Notes has this set internally to 64 megabytes. Setting `JavaMaxHeapSize=256` can solve this issue.

If you are constantly prompted to restart your client when opening DCT, check your `notes\jvm\lib\ext` directory for the presence of `DCT.jar`. This file should have been automatically deployed. If it is not present, you can download it from `https://www-304.ibm.com/support/docview.wss?uid=swg21414339&wv=1` and copy it to `notes\jvm\lib\ext`. You will need to close and re-open your client for the new JAR file to be recognized.

If other issues arise, setting `QUICKTUNE_DEBUG=4` in the client `notes.ini` settings will ensure that all DCT data gets written to disk, making it available for IBM Support and Development review.

# Summary

In this chapter, we reviewed the Domino Configuration Tuner (DCT). Creating and using DCT is easy and useful for ensuring smooth operation of the servers in your domain.

Lotus Notes Domino 8.5.3 represents the latest release of IBM Lotus' messaging and collaboration offering. The IBM Lotus development team has introduced some new features that will assist in providing existing environments an enhanced **Return On Investment** (**ROI**) by upgrading and deploying the new features. Delivering an enhanced ROI to match the end user experience that was seen with Notes 8.5 was achieved and can be leveraged by moving forward with an upgrade or deployment of Lotus Domino 8.5.3.

It is very important to access the appropriate resources to ensure that the deployment of the new features is closely matched with knowledge gained from other installations. This book is intended to provide an overview of the new release of Lotus Notes Domino and provide some steps on how to best take advantage of them in a new or existing environment. It should not be used to replace other tools available online or through a Services Provider which may outline updated information that may be reflected differently.

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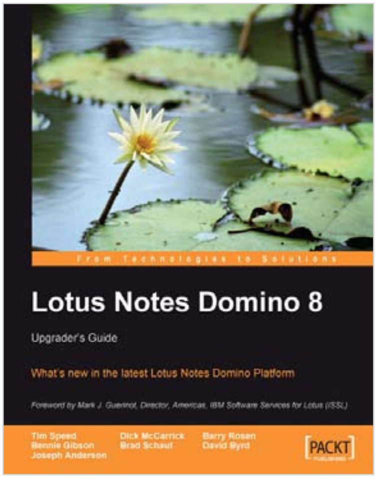

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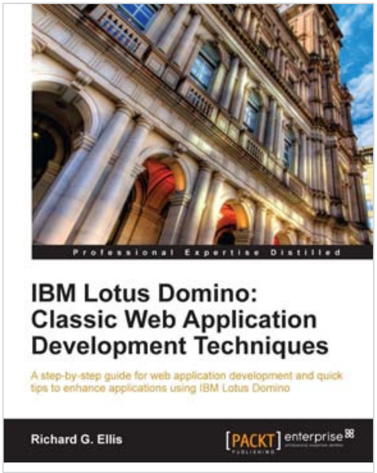

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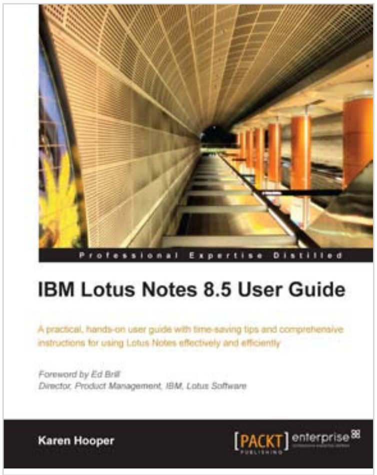

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