Lotus. software

IBM Lotus Notes and Domino 7

Reviewers Guide

International Technical Support Organization

IBM Lotus Notes and Domino 7 Reviewers Guide

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> **Note:** Before using this information and the product it supports, read the information in "Notices" on page vii.

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A special thanks to author Stacy Lieder from the IBM Lotus product marketing, product management, and ITSO organizations.

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This edition applies to IBM Lotus Notes and Domino 7.

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Introduction

This Reviewers Guide takes you on a comprehensive tour of the new features and enhancements in Lotus Notes and Domino 7. At the end of this tour, you see for yourself why upgrading or migrating to Lotus Notes and Domino 7 is the right decision for your company.

In this chapter, we review the history of IBM® Lotus® Notes® and Domino®, and their evolution into a premier collaboration and messaging platform.

This chapter provides a high-level overview of the goals for Lotus Notes and Domino 7, focusing on:

- ► What's new in Lotus Notes and Domino 7
- ► Administration, scalability and performance improvements
- ► The future of Lotus Notes and Domino
- ► Reasons to upgrade or migrate to Lotus Notes and Domino 7
- ► Extended products

1.1 The evolution of Lotus and Domino

By any definition, the Lotus Notes and Domino products represent one of the greatest success stories in the history of business software. Since the introduction of Lotus Notes 1.0 in late 1989, many millions of users have come to rely on Lotus Notes and Domino as essential collaboration and information-sharing tools critical to the success of their teams. And today Lotus Notes and Domino remain among the most important and influential products in the industry; many corporations find that they cannot be as efficient and productive without them.

But before you dive in, you must be mindful that you are reviewing one of the longest-running and most successful products in the history of personal computing. When Lotus Notes was first introduced to the market in 1989, it offered a revolutionary new way for teams to work together more efficiently by allowing them to easily distribute up-to-date information and to share ideas. In its first year, Lotus sold an amazing 35,000 copies. In subsequent years, Lotus Notes continued to spread like wildfire, boosting the productivity of users by bringing organized communication and collaboration to departmental teams in all types of industries. In these early days, both the client and the server were called *Notes*, and, in a very real sense, they made client/server computing a reality by delivering real value to companies that standardized with it.

In 1995, when Lotus embraced the Internet, we incorporated Web application capability in a powerful new server, which we renamed from the Notes server to *Lotus Domino*. From that point, the Lotus Notes brand has been reserved exclusively for the desktop client, which, by 1995, had grown its installed base to 20 000 000 copies. Over the years, IBM has added new programming, scripting, and markup languages that allow developers to build more sophisticated applications. LotusScript, a BASIC language, was added in Lotus Notes Release 4, and globalization technologies with IBM Lotus Domino Global Workbench were incorporated into IBM Lotus Notes Version 4.6 to help customers develop and manage global and multilingual applications. Later releases of Lotus Notes and Domino added Java™, COM, JavaScript™, and XML.

Much has changed since those early days (besides the name), yet much remains the same. IBM continues to innovate with Lotus Notes and Domino and continues to be a market-leading solution for messaging and collaborative application development and deployment, enabling teams to work together more efficiently and easily distribute up-to-date information and share ideas.

1.2 Market leadership

The reason Lotus Notes and Domino remain a market leader is threefold:

► The value that Lotus Notes and Domino brings to the market has not changed and is still needed. Companies always need to efficiently collaborate both internally and externally with employees, suppliers, and customers to remain competitive.

► IBM has evolved Lotus Notes and Domino to meet marketplace needs as new forms of communication have emerged. Examples of this evolution can be seen in the way IBM has adopted Internet standards, introduced instant messaging solutions, and embraced support for mobile and wireless devices.

► Lotus Notes and Domino are flexible. Lotus customers have the freedom to choose supported server and client operating systems, hardware platforms, networking protocols, directory infrastructure, programming languages, client devices, and more.

Today, tens of thousands of corporations around the globe fully tap the power of Lotus Notes and Domino by using them to significantly increase efficiency and enhance information management. With Lotus Notes, these core business processes and applications are now automated, tracked, and re-purposed. Many companies have realized significant returns on their investment in Lotus Notes and Domino by becoming more nimble, responsive, and informed. Enterprises can use Lotus Notes and Domino to achieve their goals of operating efficiently and profitably and executing with the speed necessary for competing globally.

Throughout this guide, you see evidence of the IBM passion for customers in every feature that IBM has brought forward in Lotus Notes 7, Lotus Domino 7, IBM Lotus Domino Designer® 7, and the IBM Lotus Domino extended products. You can think of this as an innovative evolution. Innovation has, and continues to be, an IBM hallmark and IBM is proud to point out aspects of the Lotus Notes and Domino 7 product family that sustain and increase our reputation as industry innovators. Evolution is the other side of the equation and directly responds to customer demand that we move forward, carefully evolving and improving while not imposing incompatibilities or costly requirements such as user retraining, rewriting applications, or mandatory rip and replace actions.

Lastly, the IBM commitment to quality code has never been stronger. It must be. With an extremely large customer community depending on IBM, Lotus Notes 7, Lotus Domino 7, and Lotus Domino Designer 7 have undergone a rigorous and thorough scrub and polish. To do this, IBM worked closely with major enterprise clients and top Business Partners to ensure that Lotus Notes and Domino 7 successfully met the stringent IBM quality metrics.

1.3 Lotus Notes and Domino 7 design goals

The major design goals for the entire Lotus Notes and Domino 7 project include:

- ► Increased scalability
- ► Enhanced administration and security features
- ► Expanded interoperability and integration options
- ► Improved productivity features
- ► Expanded support for Linux®
- ► Opportunity for reduced total cost of ownership (TCO)

Lotus Notes and Domino 7 deliver on these goals.

1.3.1 Think outside the in box

With Lotus Notes and Domino 7, it is time to think beyond e-mail. Lotus Notes and Domino 7 provide a total solution for your messaging, application development, and integration needs. Lotus Notes and Domino 7 give your users exactly what they need, when and where they need it, with unparalleled security, robustness, and scalability. The result is improved productivity.

Lotus Notes and Domino 7 have much to offer. Many enhancements to the Lotus Notes Client give your users the tools that they need to do their jobs, all with an improved and more intuitive interface. Improved performance and features in IBM Lotus Domino Web Access and IBM Lotus Domino Access for Microsoft® Outlook® allow you to extend your environment. Progammability and usability enhancements to Lotus Domino Designer allow your developers to leverage existing skills and take advantage of new technologies, all from a single, familiar interface. Performance and administration improvements to the Lotus Domino 7 Server allow you to "do more with less" and enable your administrators to keep your environment running smoothly. And the Lotus Domino Extended Products add value to your existing investment in Lotus Notes and Domino, while also allowing you to leverage your other IT investments and to

extend their reach. Lotus Notes and Domino 7 have something to offer nearly everyone in your enterprise.

1.3.2 What's new for users

IBM Lotus Notes 7 Client

Lotus Notes 7 offers a number of new calendar and scheduling features as well as tighter integration with IBM Lotus Sametime®. Other functional areas that have been enhanced include mail, desktop, accessibility, and interoperability.

Significant improvements have been made to the desktop so that users can customize their interaction with the desktop, either by saving the window state on exit, or by determining which tabs open on startup. Furthermore, a user no longer has to wait while a view updates; because the update occurs in the background, the user can work in other areas while the view is updated, providing the opportunity for improved productivity. A new AutoSave feature has been introduced to help prevent data loss when unexpected outages occur; users can enable AutoSave as a preference in the Lotus Notes client. This action saves their work every few minutes while they use AutoSave-enabled applications. Designers can enable AutoSave on forms in new and existing applications.

Calendar and scheduling have been updated to better reflect customer needs. A new Calendar Cleanup action allows users to easily and quickly delete old entries from their calendars. The handling of conflicts has been improved, first by giving the user the option to allow Autoprocess to accept conflicts and also by enhancing the display of schedule conflicts. Additionally, users can now cancel calendar and scheduling workflow when they are sending comments. View and miniviews of calendar information have been improved for better usability, and the needs of calendar managers have been addressed. Further, many improvements have been made to the way that rooms and resources features are managed. You can now restrict rooms and designate a room as restricted to those attempting to reserve it. Changes to the workflow prevent double-booking, in addition to providing greater granularity of control to administrators in charge of the rooms and resources process.

In Lotus Notes 7, there is much closer integration with Lotus Sametime. Integration has been added to templates for the mail file, team room and discussion databases, the personal name and address book, the Lotus Domino Directory, and the rooms and resources databases. In these databases, not only can users see who is online, but they can also initiate an instant message session directly by clicking the status icon. Also, several preferences have been added for Lotus Sametime integration that allow a user to specify automatic or manual logins, to save transcripts of instant messaging conversations to the mail file, and to support set preferences about how screen sharing, whiteboarding, and audio and video are used from the Lotus Notes client.

Numerous usability improvements have been made to mail. Among the highlights are a no subject warning, the ability to sort by subject out of the box, quick access to flag items for follow-up, and the ability to see mail threads within an e-mail. The right-click menu has been expanded as well, and administrators can now control mail preferences with policies. Finally, visual tags have been provided to indicate whether an e-mail was sent to the recipient only, and a user can determine what folders hold a document with the Discover Folders action.

To increase your options, the Lotus Notes Application plug-in that is part of the Lotus Notes and Domino 7 release is designed to work with the IBM Workplace™ Managed Client. For additional information, please consult the product documentation for IBM Workplace Collaboration Services 2.5 at:

http://www-10.lotus.com/ldd/notesua.nsf/6c87a7297ac2aa718525698100519109/865ed40240bc25ae85 2570060050eb40?OpenDocument

Finally, a number of improvements have been made to the archiving process.

For details about these and all other new client features, see the Lotus Notes and Domino 7 release notes at the Lotus Developerworks site:

`http://www-10.lotus.com/ldd/notesua.nsf/e18d5eb0b8be97d9852567e50052ad16/ec099861d91381fc85 2570360051903c?OpenDocument`

For more information about the Lotus Notes 7 Client, please see Chapter 2, "IBM Lotus Notes 7 Client" on page 13.

IBM Lotus Domino Web Access

In some situations, accessing e-mail and discussion forums from a thick client installed in a dedicated workstation is not practical. For example, employees require the flexibility to access important information when at home, while traveling, or when using a shared workstation. For those situations, IBM created Lotus Domino Web Access, the premier IBM Web client for accessing a Lotus Domino-based mail file. IBM Lotus Domino Web Access uses Dynamic HTML (DHTML) to offer a rich user experience for Microsoft Internet Explorer, Mozilla, and Firefox browsers. As a DHTML application, Lotus Domino Web Access client performance is governed by server performance, network performance, and client configuration.

Lotus Domino Web Access 7 has many improvements in the areas of performance and usability. Highlights include:

► Opportunity for improved client and server performance
► Enhanced security features
► Expanded presence awareness and instant messaging integration
► Updated user interface
► Added mail and calendar productivity features
► Enhanced support for Linux
► New administration and management features
► Improved offline access to personal data

Lotus Domino Web Access 7 software is a sophisticated Web client for Lotus Domino server. Lotus Domino Web Access software gives your employees the power to create rich text messages, to schedule meetings, to manage tasks and to collaborate with colleagues, whether they are using their own workstation, an Internet kiosk, or another user's PC. With Lotus Domino Web Access 7, you receive the best of both worlds: access to a robust, reliable, enterprise-class messaging and collaboration platform, with the ease of simply opening a browser. For more information about Lotus Domino Web Access 7, please see Chapter 3, "IBM Lotus Domino Web Access" on page 33.

Note: Lotus Domino Web Access 7 takes advantage of Lotus Domino 7 Server performance improvements, both in the core server functionality and in HTTP. For more information about performance improvements in Lotus Domino 7 Server, please see Section 6.3.1, "Performance and scalability" on page 71.

IBM Lotus Domino Access for Microsoft Outlook

IBM Lotus Domino Access for Microsoft Outlook offers the ideal solution for companies that want to leverage the robustness and security advantages of the Domino server, while preserving their dedicated Microsoft Outlook user base. Additionally, in the case where a company merger or acquisition leads to a mixed-client environment, Lotus Domino Access for Microsoft Outlook enables a user to run the Outlook or Lotus Notes client over the same Lotus Domino mail file data. Company mergers and acquisitions can mean having multiple e-mail clients in use. Whether you choose to migrate fully to a Lotus Notes and Domino environment or to allow the Lotus Notes and Lotus Domino Access for Microsoft Outlook

clients to coexist, Lotus Domino Access for Microsoft Outlook provides the functionality to smoothly integrate Microsoft Outlook users into your Lotus Domino infrastructure, while letting them continue to access mail and work with calendar functions from a familiar interface.

Among the highlights of Lotus Domino Access for Microsoft Outlook 7 are:

► Opportunity for improved client software performance, reducing the time to launch the application compared to Lotus Domino Access for Microsoft Outlook 6.5.3

► Native support for Internet standards, including X.509 and Secure Multipurpose Internet Mail Extensions (S/MIME)

► Installation option for separate program and data directories, allowing multiple users to share the same machine using Microsoft Windows® operating system security

► New mail notification options, including playing a sound, briefly changing the mouse cursor, and showing an envelope icon in the notification area

► Option to use a local copy of your global address book; this can be a full copy of the directory or a condensed directory catalog to save space on your workstation

Lotus Domino Access for Microsoft Outlook 7 users can also use Lotus Domino applications from a browser, dramatically increasing access to their existing Lotus Domino applications. Finally, because Lotus Domino Access for Microsoft Outlook 7 does not require a Lotus Domino 7 server, you can take advantage of these improvements today, before you complete your server upgrade, as long as the mail files of your users are Lotus Domino 6.5.1 or higher.

For more details about the improvements to Lotus Domino Access for Microsoft Outlook 7, see Chapter 4, "IBM Lotus Domino Access for Microsoft Outlook 7" on page 49.

1.3.3 What's new for administrators

The new and improved features of Lotus Domino 7 allow you to leverage your existing investments in hardware, operating systems, application software, and administration skills. Domino 7 provides you with the flexibility to choose the most appropriate server and client platforms and to take advantage of important new features without having to overhaul your entire environment. A very attractive value proposition is offered: the potential to decrease the total cost of ownership (TCO) of your messaging and application infrastructure while increasing productivity. To this end, Lotus Domino 7 was designed with you in mind.

To maintain a competitive edge and improve responsiveness, companies must maximize productivity and facilitate collaboration between customers, partners, and suppliers. With this in mind, development of the Lotus Domino 7 Server was driven by these high-level goals:

► Decrease Lotus Notes client deployment and support costs
► Limit time spent troubleshooting
► Improve e-mail management
► Allow Lotus Domino administration on Linux

These contribute to the overall goal of continuing to lower the TCO of Lotus Notes and Domino.

With the new tools in Lotus Notes and Lotus Domino software, you can be more responsive and productive.

Highlights
Some highlights of Lotus Domino 7 include:

► Powerful administration tools, including Domino domain monitoring and Activity Trends
► Improved performance and scalability

- ► Expanded support for industry standards
- ► Enhanced security features and spam control
- ► Unmatched platform support.

Lotus Domino 7 can help you improve the productivity of your people, enhance interoperability and integration, and simplify administration. The combination of these benefits can help you lower your TCO. With Lotus Domino 7, IBM extends the reach of Lotus Notes and Domino messaging and collaboration solutions while allowing you to continue leveraging your IT and application investments.

Lotus Domino server includes powerful features that simplify management and configuration and provide centralized control over your entire collaboration infrastructure. With autonomic and proactive features and tools such as Lotus Domino domain monitoring and Activity Trends, you can more easily identify and resolve problems in your Lotus Domino infrastructure, optimize your deployment, and intelligently distribute your server workload. Other tools allow you to automate repetitive administration tasks, simplifying user management, saving valuable time, and focusing on more critical tasks. Improved client upgrade and installation tools can often decrease deployment time and costs. Enhanced security features and spam controls help you to safeguard your environment and keep your productivity up. The Lotus Domino 7 enhancements described in the following pages can help reduce time and costs associated with administration, systems management and software deployment and configuration.

1.3.4 What's new for developers

Developers have a lot to cheer about with the release on Lotus Notes and Domino 7. Three themes guided the development of the Lotus Domino Designer 7:

- ► Tighter Integration with evolving Web standards
- ► Increased interoperability with other IBM software products
- ► Improved ease of use

As use of the Internet has increased, the standards that govern data interchange and formatting have evolved. To keep up with this ever-changing environment, your developers and application architects need tools that both build on their existing skills and leverage new technologies. Lotus Domino Designer software helps them develop and manage applications more easily than ever before while leveraging their current skills, which can both preserve IT assets and reduce the costs associated with learning new skills and languages. With the comprehensive and open development environment of Lotus Domino Designer software, designers can build and deploy applications in existing platforms while using industry-standard programming tools such as JavaScript, Java/Common Object Request Broker Architecture (CORBA), XML, Microsoft Component Object Model (COM)/OLE, Messaging Application Programming Interface (MAPI), JavaServer™ Pages™ (JSP™) tags and C/C++ application programming interfaces (APIs).

By providing a choice of multiple programming languages, Lotus Domino Designer software enables developers to choose the most appropriate programming language for their application and use the skills they already have. Lotus Domino Designer 7 software continues to support the Lotus Notes formula language and the Lotus scripting language, LotusScript, as well as JavaScript. The Lotus Notes formula language is a procedural, command-level language, while LotusScript is a structured scripting language. Lotus Domino Designer also continues to support the Java programming language.

Additional support for integration with other IBM Software products further allows you to leverage your other IT investments and assets, providing more efficiency. You have the option to extend the reach of your existing Lotus Domino applications to IBM Workplace

Collaboration Services, IBM Workplace Services Express, and IBM WebSphere® Portal software by using portlets. And Lotus Domino 7 server offers the option to evaluate and use IBM DB2® Universal Database™ software as an alternative to Lotus Notes storage facility for storage of individual Lotus Notes databases. Lotus Domino Designer 7 software introduces two design elements that complement this feature: IBM DB2® access views and query views. Using these capabilities, you can build applications that blend collaborative services with relational data, and access Lotus Domino data using industry-standard Structured Query Language (SQL).

What's new for systems integrators and application architects

Application architects and system integrators have not been left out. Code profiling provides you with valuable information about how your code is running in deployment, allowing you to identify and correct bottlenecks in your applications. With Lotus Domino 7, long-running agents could be identified using agent probes in Domino domain monitoring, then application developers could use that information to profile an agent. Combining administration tools with application development tools provides a total package that is designed to help you get, and keep, your environment running smoothly.

1.4 Commitment to the future of Lotus Domino

Lotus Domino 7, part of the IBM Workplace family of products, is not the end of the innovation road map for Lotus Notes and Domino software. Current goals for the future are to:

- ► Expand the boundaries of Lotus Notes capability to help address business problems.

- ► Improve cost of ownership of the rich client experience using IBM Workplace Client Technology.

- ► Evolve to include more standards-based architectures.

- ► Keep the Lotus Notes user experience true to its heritage and to the investments that customers have made.

This clear and solid road map indicates that Lotus Domino-based collaborative applications can be easily adapted for future user interface experiences and innovative interaction models, including the next release of Lotus Notes, code-named *Hannover*.

Hannover introduces an exciting new innovation called activity-centric collaboration to Lotus Notes users. Activity-centric collaboration lets users organize, navigate, manage, and share information, such as e-mail messages, calendar entries, documents, online conversations and Web conferences, to support a particular activity or project.

Another defining capability of Hannover is support for composite applications, which is a key tenet of service-oriented architecture (SOA). A composite application brings together components from multiple applications into a single, role-based work environment. Composite applications are created and customized, potentially by the business user, by assembling the capabilities necessary to allow productive execution of the business process.

New capabilities are being added to Lotus Notes and Domino to support the IBM Workplace strategy while existing ones remain in place. For many existing Lotus Notes customers, the best way to progress to the future is to remain current with Lotus Notes and Domino and take advantage of extended products, rapid application development tools, and integration technologies. This approach can help you maximize organizational productivity now and position yourself for the future of business and of technology.

1.5 Ten reasons to upgrade to Lotus Notes and Domino 7

Lotus Notes and Domino 7 offer you an unprecedented opportunity to enhance user productivity, extend your existing IT investments, increase the security features and robustness of your messaging infrastructure, and leverage new technologies.

1.5.1 Support more users with fewer server and network resources

Lotus Notes and Domino 7 delivers enhanced performance.

► Performance benchmarks indicate that Lotus Domino 7 server has the potential to support up to 80% more Lotus Notes mail users (up to 50% more Lotus Domino Web Access users) with up to 25% fewer CPU resources than Lotus Notes and Domino 6.5. For more performance information see the *IBM Lotus Domino 7 Performance Improvements* white paper at:
http://www-12.lotus.com/ldd/doc/uafiles.nsf/docs/NOTES7OWP/$File/Domino_7_Performance_Paper.pdf

► Network bandwidth utilization can be minimized by using the integrated compression techniques, the streaming replication, and the server caching introduced in Lotus Notes and Domino 6.5.

1.5.2 Opportunity to reduce time and costs for software deployment and configuration

Lotus Notes and Domino 7 make deployment and configuration easier as follows:

► Lotus Domino domain monitoring provides a single view of the overall health of Lotus Domino servers in an enterprise, suggests probable causes and possible solutions, and allows proactive analysis of correlated events.

► The activity trends feature of Lotus Domino 7 incorporates predictive analysis technology formerly delivered as a separate product. It offers autonomic and capacity planning tools.

► Lotus Domino policy-based administration allows administrators to centrally manage standards and enforce corporate IT policies. Lotus Domino 7 extends policy based administration to include settings that are stored in user mail files.

► Lotus Notes Smart Upgrade enables installation and configuration of user PCs and workstations without visiting a single desktop. Lotus Domino 7 provides enhancements to further automate client installation and upgrade processes.

1.5.3 Leverage integrated capabilities

Notes and Domino 7 provides unprecedented integration options:

► Lotus Notes and Lotus Domino Web Access offer instant message and (optional) Web conference integration. With Version 7, presence awareness extends beyond mail to calendar, address book, and application templates such as team rooms and discussions.

► Lotus Notes and Domino provides organizations with an effective way to manage conference rooms and meeting resources, such as audiovisual equipment, online meetings, and more, with a centralized database.

1.5.4 Preserve existing investments while moving forward with a solid roadmap

Lotus Notes and Domino helps extend your existing IT environments as follows:

- ▶ Lotus Notes and Domino is known for its backward compatibility of applications. Lotus Domino 7 continues to support and enhance Lotus Notes formula language and LotusScript.
- ▶ The fact that 80% of Lotus Notes and Domino R5 customers have upgraded in the past three years demonstrates a smooth upgrade path.
- ▶ Lotus Notes 7 offers an application plug-in that allows you to run native Lotus Notes applications in the context of the IBM Workplace Managed Client™ product without design modifications.
- ▶ Lotus Notes and Domino 7 supports a wide range of programming options including Java, JavaScript, Web services, and SQL to leverage existing skills and help integrate with new or existing application environments.
- ▶ A clear and solid road map indicates that Lotus Domino-based applications can be easily adapted for future user interface (UI) experiences and innovative interaction models, including the next release of Lotus Notes, code-named *Hannover*.

1.5.5 Provide infrastructure flexibility

Lotus Notes and Domino 7 lets you match your environment to your needs, skills, and investments as follows:

- ▶ Lotus Domino supports a wide range of server operating system platforms (IBM AIX®, IBM i5/OS™, IBM z/OS®, Linux (for Intel® and IBM @server zSeries®), Sun™ Solaris™, and Microsoft Windows 2000 and 2003).
- ▶ Client offerings provide the flexibility to choose the supported option best tailored for your users: Lotus Notes, Lotus Domino Web Access (on Windows and Linux), POP or IMAP clients, or Microsoft Outlook (using Lotus Domino Access for Microsoft Outlook).
- ▶ Lotus Domino lets you leverage your current directory infrastructure through support for Active Directory and LDAP.
- ▶ Lotus Domino 7 server performance enhancements support the dramatic scalability increases described previously for Lotus Notes and Lotus Domino Web Access users.
- ▶ With client performance enhancements in Lotus Domino Web Access 6.5.4 and 7, users have reported improved response times of up to 40%.
- ▶ Performance enhancements in Lotus Domino Access for Microsoft Outlook, introduced in 6.5.4, can significantly reduce application launch time.

1.5.6 Provide high availability for your information and your environment

Lotus Notes and Domino 7 allow your users to remain productive as follows:

- ▶ Lotus Domino provides many capabilities to help maximize the availability of your mission-critical information and help reduce downtime, including proactive monitoring tools, transaction logging, and server fault recovery.
- ▶ Advanced clustering technology provides failover for data as well as processor resources.

1.5.7 Protect your information

Lotus Notes and Domino 7 provide unrivalled security features:

- ▶ Security-rich functionality is the foundation of Lotus Notes and Domino. The advanced and proven security features include:
  - – Multi-level access control from the server all the way down to a field on a form
  - – Server and local file encryption;

– Digital signatures
– Support for Internet security standards; and more.

► Execution control lists in the Lotus Notes client keep unauthorized scripts, code, and formulas from running on your workstation without your consent.

1.5.8 Extend your applications to serve the needs of On Demand Business

Lotus Notes and Domino 7 allow you to leverage all of your IT investments:

► Lotus Domino-based collaborative applications can contribute to high return on investment. Many case studies demonstrate the business value of applications that are developed in house, are custom designed by IBM Business Partners, or are available from independent software vendors.

► Lotus Domino Designer 7 allows you to rapidly built, test, and deploy security-rich, mission-critical business applications in house, using an open development environment.

► Lotus Notes and Domino 7 and IBM WebSphere Portal offer tools to help extend the reach of Lotus Domino applications to business portals.

► Using Lotus Domino Designer 7, your application developers can leverage Java or LotusScript technology to create Web services and expose Lotus Domino applications to external systems, including J2EE™ and Microsoft .NET environments.

► With the Lotus Domino 7 option to use IBM DB2 Universal Database as a data store, along with new design elements in Lotus Domino Designer 7, application developers can easily blend collaborative services with relational data.

► Using IBM Lotus Enterprise Integrator®, you can create, manage, and schedule batch and real-time access to provide integration among a variety of relational systems such as IBM DB2, Oracle, Microsoft SQL Server and more.

1.5.9 Enable users to be more productive

Lotus Notes and Domino 7 support increased user productivity as follows:

► Many enhancements in Lotus Notes 7 and Lotus Domino Web Access 7 are designed to help users manage the vast quantities of mail they receive daily and to manage their schedules and resources more effectively.

► Lotus Notes 7 offers multi-threading for mail file views and instant message windows, allowing users to work productively while tasks run in the background.

► Enhancements to instant message integration include the ability to paste Lotus Notes links into instant messages and save online conversations to your mail file.

► General Lotus Notes 7 productivity enhancements include an AutoSave feature, customization and management of open windows, access to more features from the right-mouse menu, and a confirmation prompt when closing the application.

1.5.10 TCO

Preliminary analysis of Lotus Notes and Domino 7 by Ferris Research indicates that Release 7 continues the downward trend in TCO begun by Lotus Notes and Domino 5, and built upon by Lotus Notes and Lotus Domino 6 and 6.5. Initial studies suggest that direct costs and user productivity costs will each decrease by 15% over Lotus Domino 6.

Ferris cites six main reasons for this continued reduction in TCO:

► More efficient use of server processor resources
► Easier administration of server infrastructure

- ► Much more comprehensive policy-based Management
- ► Enhancements to Smart Upgrade
- ► Pervasive integration with Lotus Sametime
- ► Client productivity enhancements

Additionally, Ferris goes on to state:

Release 7 is a significant upgrade of the Notes/Domino infrastructure. Although the IBM product plan primarily classifies Notes/Domino 7 as a "server feature" release, the client component has benefited from significant and valuable improvements as well.

For more information or to download the Ferris Report, visit:

`http://www-306.ibm.com/software/swnews/swnews.nsf/n/nhan6fyn7f?OpenDocument&Site=default`

1.6 Overview of extended products

The Lotus Notes and Domino 7 extended products are a set of products that extend the functionality of Lotus Domino, allowing you to integrate and coexist with existing investments and to leverage all of your IT investments to their greatest extent. In short, the extended products extend the value and reach of your existing Lotus Domino and non-Lotus Domino, IT investments. The portfolio of extended products provides a variety of offerings and integration points for improved productivity beyond simple e-mail. Each product in the portfolio is designed to improve all aspects of a user's ability to communicate and collaborate, from simple UI enhancements to more fundamental improvements.

Lotus Notes and Domino extended products include:

- ► Lotus Sametime
- ► IBM Lotus QuickPlace®
- ► IBM Lotus Enterprise Integrator
- ► IBM Lotus Domino Document Manager
- ► IBM Lotus Workflow™

Just as many improvements have been made to Lotus Notes and Domino, the extended products have been improved, too. IBM Lotus Sametime 7, the industry leading instant message and web conference product, provides tighter integration with all of our clients. Significant improvements have been made to the Lotus QuickPlace user interface. And Lotus Domino Document Manager is still providing easily deployable, low cost library services for the enterprise user.

2

IBM Lotus Notes 7 Client

In this chapter, we examine new IBM Lotus Note 7 features in the following functional areas:

- ► Mail
- ► Calendar and scheduling
- ► Lotus Sametime integration
- ► Desktop
- ► Template enhancements
- ► Interoperability with Microsoft Office
- ► Lotus Notes Application plug-in for use with the IBM Workplace Managed Client

2.1 Overview

With Lotus Notes 7 software, IBM continues to focus on helping organizations improve collaboration, increase productivity, and streamline business processes. As the premier integrated desktop client software for use with Lotus Domino server, Lotus Notes software delivers enterprise class messages and collaboration. Built-in functionality includes electronic mail with integrated instant message capabilities, calendar and scheduling, discussion forums, team rooms, reference databases, and personal information management tools.

Lotus Notes and Lotus Domino software are well known for robust security features that can help minimize or, in some cases, eliminate the impact of computer viruses. With the Lotus Notes client, execution control features can help keep unauthorized scripts, code, and formulas from running on your workstation. Multi-tier security options allow you to control access rights from the server level all the way down to an individual field on a form.

To meet the ever-growing messaging demands of enterprises, Lotus Notes 7 software provides advanced presence awareness, instant message, and Web conference features. These capabilities allow companies to create powerful collaborative environments, thereby helping companies to increase employee productivity, facilitate decision making, and improve overall business responsiveness.

2.2 Goals and highlights

With Lotus Notes 7, IBM builds on the robust, feature-rich foundation of earlier releases. With Lotus Notes 7, the major goals were to improve user productivity and help lower TCO. IBM accomplished these goals by focusing on these major themes:

► Increasing user efficiency with enhanced productivity features

► Maximizing employee responsiveness with a single point of access to frequently used resources such as e-mail, calendar, instant messages, and collaborative applications

► Facilitating collaboration between users through improved presence awareness and Web conference integration

► Managing conference rooms and resources more effectively with a centralized rooms and resources database

► Enhancing integration with Microsoft Office applications

► Integrating with IBM Workplace Managed Client software

The improvements in every area of Lotus Notes 7 can help you keep your users productive and happy.

2.3 What's new in Lotus Notes 7: Features and benefits

Lotus Notes 7 software provides many new features and functions that can help enhance the productivity of users in their daily work.

2.3.1 Mail

Employees continue to receive vast quantities of e-mail daily. Effective e-mail management helps them be more responsive and productive. Lotus Notes 7 software provides a host of productivity enhancements to help users prioritize, organize, and manage information. Table 2-1lists these enhancements and features.

Table 2-1   Mail

Feature	Description	Benefit
Attention indicator	Users can now display a view level icon in the in box that shows if they are the only one, or one of a few listed, in the To field, cc: field, or both. See Figure 2-1 on page 17	This feature allows a user to quickly find targeted messages, making them stand out from messages addressed to large numbers of people.
Mail threads	Mail threads can now be displayed as part of the Memo header by clicking the "Show Threads" button in the action bar.	This feature provides the user with immediate context when viewing a message that is part of a long e-mail thread, without having to go look for the other messages.
Mail rules	Mail Rules support: ► Stop processing action ► Black list filter ► White list filter ► Form name	This support allows users more granularity when creating mail rules; they can now perform actions based on the presence of black list tags or white list tags, or based on a form name. It can also prevent processing of additional mail rules once a specified condition is met.
Right click	The right-click mouse menu options have been optimized for ease of use. See Figure 2-2 on page 17.	This optimization provides quick access to common functions.
Follow up	Follow-up actions are available from the right-click mouse menu. Also, the user can now display the Follow Up dialog box by dragging and dropping to the Follow Up view.	This feature provides quick access to follow-up features.
Quick follow up	Quick follow-up allows a user to flag a document or set of documents for follow up, without displaying the Follow-up dialog box, by using defaults that are set in Preferences. See Figure 2-3 on page 18.	This feature provides one-click flagging of messages for follow-up.
Discover folders	Mail views have a new action that, when clicked, displays a dialog box showing the folder or folders in which the selected document is found. See Figure 2-4 on page 18.	This feature provides an easy way for users to find misfiled documents.
Sort by subject	The ability to sort by subject is now available in the in box and other views in Mail.	This feature allows users to quickly find a message based on subject.

| Feature	Description	Benefit
No subject warning	Users are warned if no subject has been entered in a message. If there is no subject, the user can add one at this point. See Figure 2-5 on page 18.	This feature gives users the opportunity to add a subject before the message is sent, which decreases the incidence of messages inadvertently sent without a subject.
Mail preferences	Mail Preferences can now be set with policies, allowing administrators to roll out a single set of preferences to all users. Optionally, these preferences can be locked down by the administrator so that the user cannot modify them.	This feature allows for implementation of organizational policies; settings can be standardized, and can be locked to enforce compliance with security guidelines.
Trash folder	A *Date/Time deleted* column has been added to the Trash folder.	This feature assists in finding documents that were inadvertently marked for deletion.
Archiving	The following enhancements have been made to archiving: ► UI usability has been improved. ► A creation date can now be used when archiving. ► Administrators can now set a maximum retention time for archiving. ► Administrators can now use a custom generated expiration field.	These enhancements allows users or administrators more options when making choices for archiving.
Attachment processing	Attachment processing has been improved; users are warned to save edits to attachments before closing the Lotus Notes editor window. See Figure 2-6 on page 19.	This improvement is designed to prevent a user from losing work when editing an attachment from within a mail message.

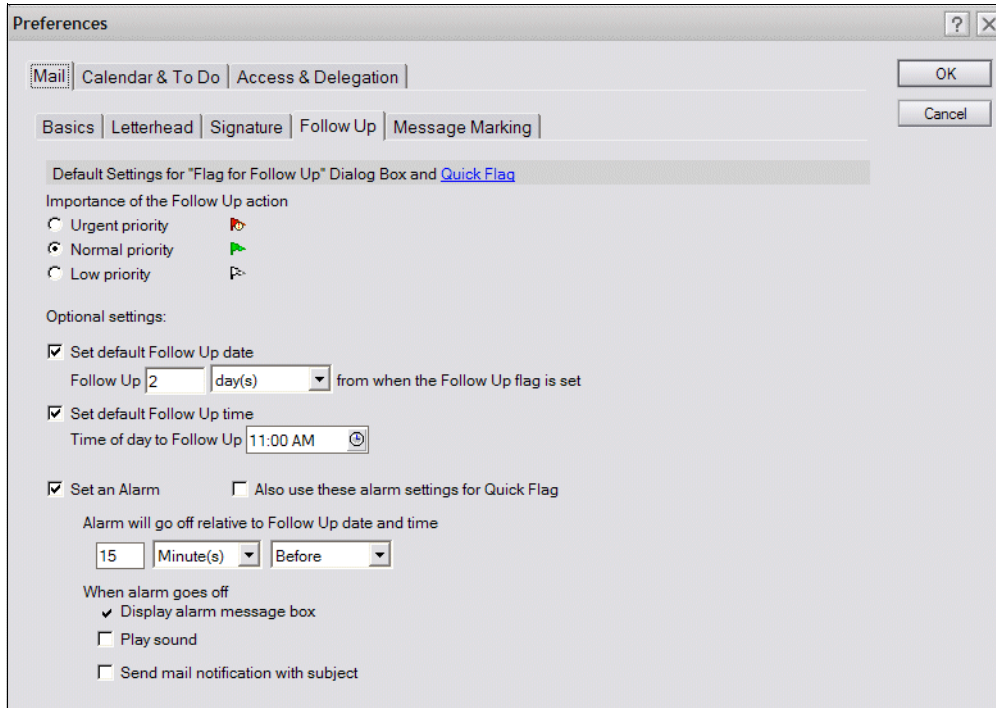*Figure 2-1   Attention indicator preferences*
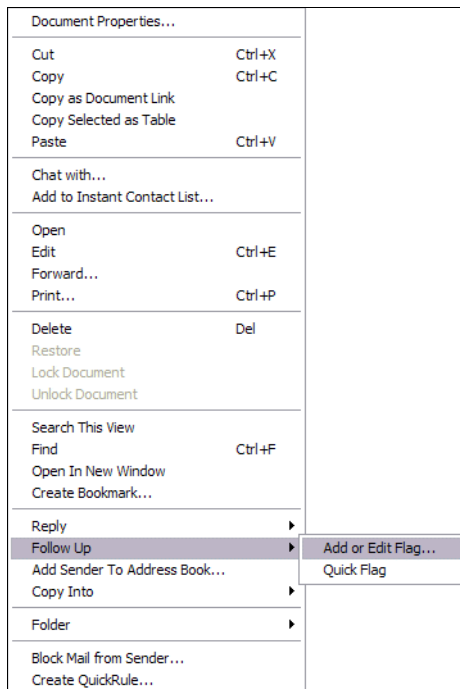
Figure 2-2   Right-click options
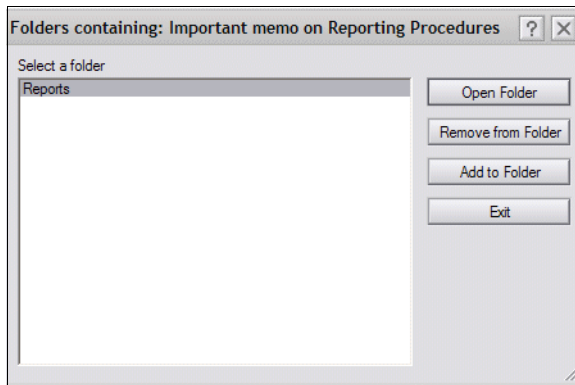
Figure 2-3   Quick follow-up preferences

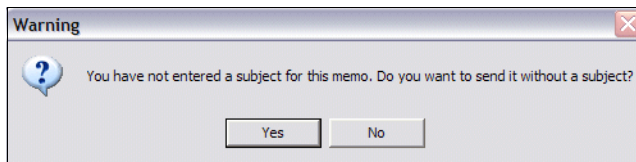*Figure 2-4   Discover folders dialog*

Figure 2-5   No subject warning
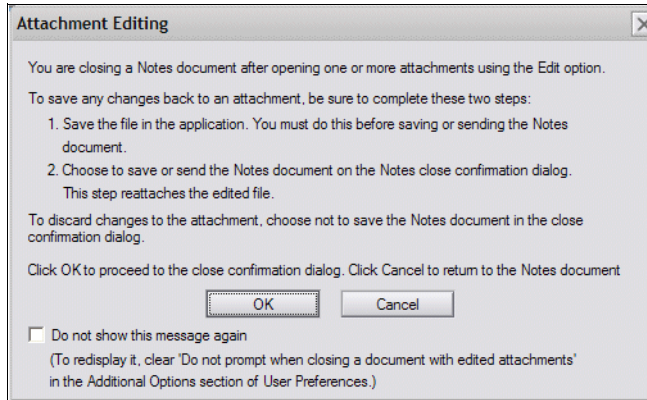
Figure 2-6 Attachment editing dialog

2.3.2 Calendar and scheduling and room and resource reservations

Increased employee efficiency can contribute to the overall efficiency of your business. With the enhanced calendar capabilities delivered with Lotus Notes 7, employees can manage their schedules and resources more effectively, helping to improve daily productivity.

To decrease calendar clutter and help increase efficiency, the calendar filter allows you to sort your calendar by calendar entry type: meeting, appointment, all day event, anniversary, reminder, and to do.

Lotus Notes 7 continues to provide enterprise organizations with an effective way to manage conference rooms and meeting resources, such as audio-visual equipment, online meetings and more, with a centralized rooms and resources database.

The Lotus Notes 7 enhanced calendar and scheduling capabilities are listed in Table 2-2.

Table 2-2 Calendar and scheduling

Feature	Description	Benefit
Calendar filter feature	A new addition in the calendar is the Filter button in the action bar that provides the following filter options: by chair, by type, by status, by private, and by view all. If a filter option has been selected, clicking the unfilter button in the action bar makes all the calendar details appear.	This provides users with the ability to refine the information that appears on their calendar.
Calendar display	► Conflicting calendar entries are now optimized in the Calendar view, instead of spanning multiple columns. ► The Calendar Mini-view has the ability to be expanded and collapsed.	These display optimizations improve usability by providing easier to read, more detailed information about calendar entries.

Feature	Description	Benefit
All Calendar Entries view (formerly called the Meetings view)	There are now three different ways to look at all calendar entries: ► On My Calendar displays all Calendar entries to which you have committed, including appointments, reminders, all-day events, anniversaries, and draft and penciled-in meetings. Each instance of a repeating meeting stands alone as its own entry. ► All By Date displays everything in the On My Calendar view, plus entries to which you have not yet committed and meeting workflow documents (by date that the workflow occurred). Each instance of a repeating meeting stands alone as its own entry. ► Meeting Threads displays all meeting documents, regardless of acceptance, with repeating meetings and workflow documents indented beneath each parent meeting. See Figure 2-7 on page 22	These enhancements provide a user with more flexibility in viewing calendar entries, allowing for more efficient calendar management.
Online meetings	There are more options available when scheduling online, such as enabling users to restrict attendees to only those on the invite list and providing a password for the online meeting.	If the Sametime environment is configured with integrated Web conference functionality, this feature allows the setup of online meetings without having to leave the Lotus Notes client. Also, if there are any changes to the invitation, the online meeting is modified automatically.

Feature	Description	Benefit
Automatic processing of meeting invitations	▶ Allows users to automatically respond to meeting invitations, either from anyone, from only specific people, or from everyone except specific people. ▶ Allows users to enable automatic processing of meeting invitations one of several ways, by only automatically accepting if the time is available, and declining if time is unavailable, by delegating if time is unavailable, by allowing the user to decide if time is unavailable, or by accepting all conflicts. See Figure 2-8 on page 22	Users can ensure that they are aware of all calendar invitations even if they have been automatically processed. Users can retain control of their calendars while still allowing automatic processing and preference is no longer given to the first meeting in a time slot. Therefore, users can now decide how best to manage their time based on all available information.
Set preferred sites and resources	Users can define most commonly used rooms and resources in Calendar Preferences. Users are prompted to set preferences when saving an invitation that includes rooms or resources. See Figure 2-9 on page 23 and Figure 2-10 on page 23.	This feature allows quicker access to commonly used resources, saving time.
View owner restrictions on resources	Users can see if a resource is restricted, and what restrictions have been placed on its use. See Figure 2-11 on page 23 and Figure 2-12 on page 24.	This feature allows users to see if the rooms or resources they want are subject to any use restrictions before they try to book a room, decreasing the need for update notices. For more information about enhancements made to Room and Resource Reservations management, please see 6.3.6, "Room and resource scheduling" on page 89.
Calendar Cleanup action	Allows users to easily and quickly delete old entries from their calendar. See Figure 2-13 on page 24	Users can remove calendar details that have already occurred, which can help them manage mail file sizes better.
Delegation features	▶ Calendar managers can now mark messages for follow up in mail files that they manage. ▶ Mail forwarded by a calendar manager now is created and saved in the correct mail file.	This feature provides greater flexibility and utility for calendar managers.

The All Calendar Entries view (Figure 2-7) allows you to choose what entries you want displayed and how, and allows you to sort.
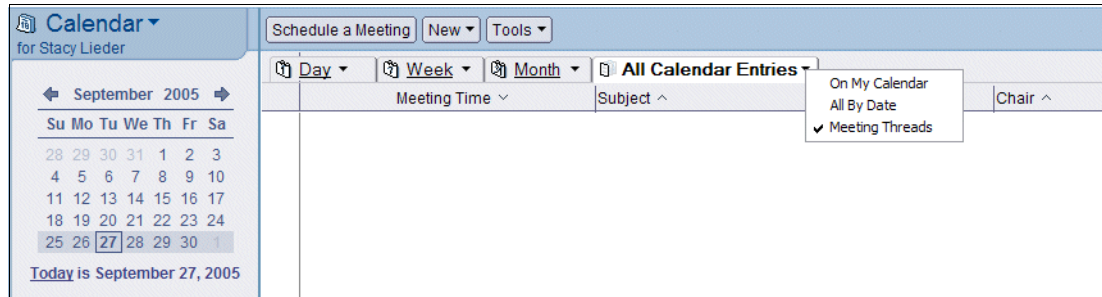
Figure 2-7   All Calendar Entries view

Users have several options if they choose to enable automatic processing of Calendar entries as shown in Figure 2-8.
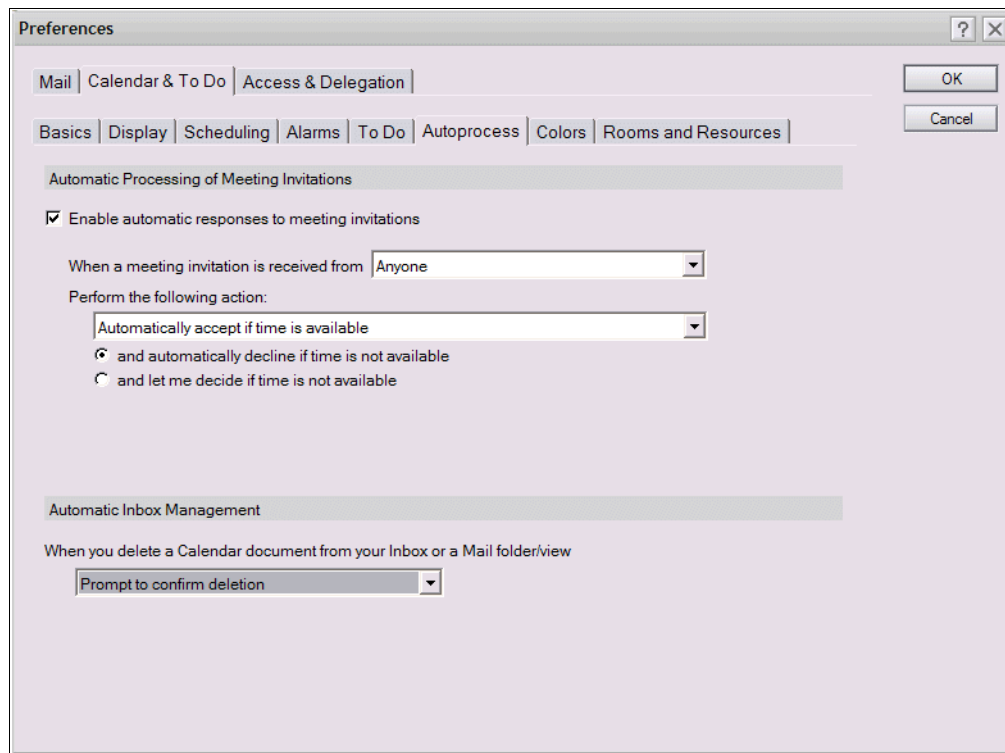
Figure 2-8   Calendar automatic process settings

Using preferred sites and rooms (see Figure 2-9 and Figure 2-10 on page 23) allows quicker creation of reservations of frequently used rooms.
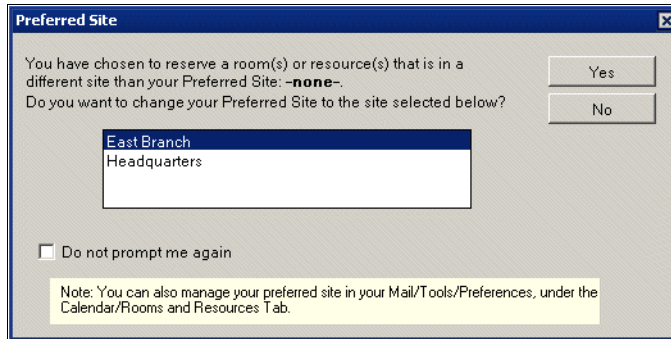
Figure 2-9   Setting preferred site
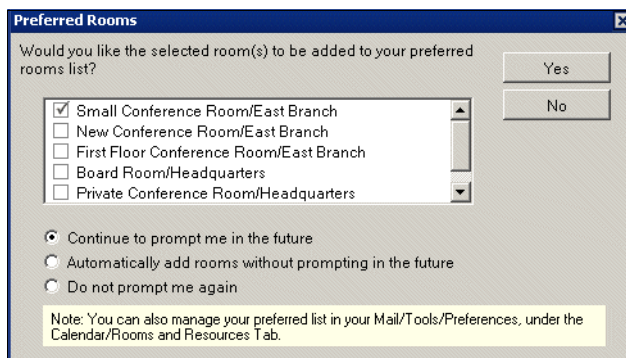
Figure 2-10   Setting preferred rooms

The red icon to the left of the room or resource name indicates there are restrictions on how a resource can be reserved as shown in Figure 2-11. To see the restrictions, select the resource, then click the Details button to display more information about the resource.
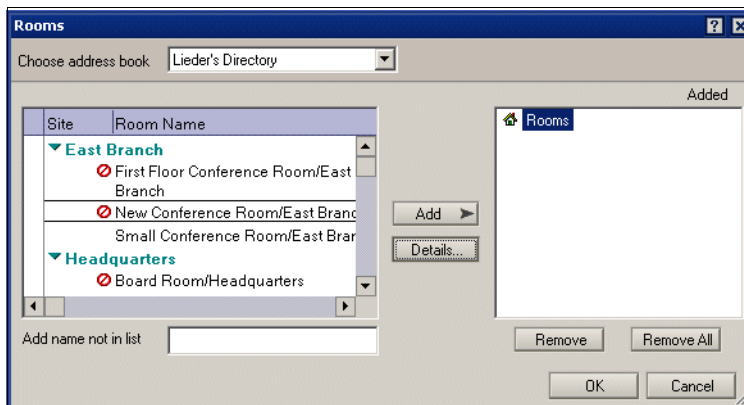
Figure 2-11   Icon indicating that room is restricted

The details of this resource (see Figure 2-12) indicate that it is disabled, meaning that, if the user attempts to reserve it, the Room and Reservation Manager task declines the reservation. Owner restrictions are specified during resource setup. For more information about the updates to room and resource reservations in Domino 7, see 6.3.6, "Room and resource scheduling" on page 89.
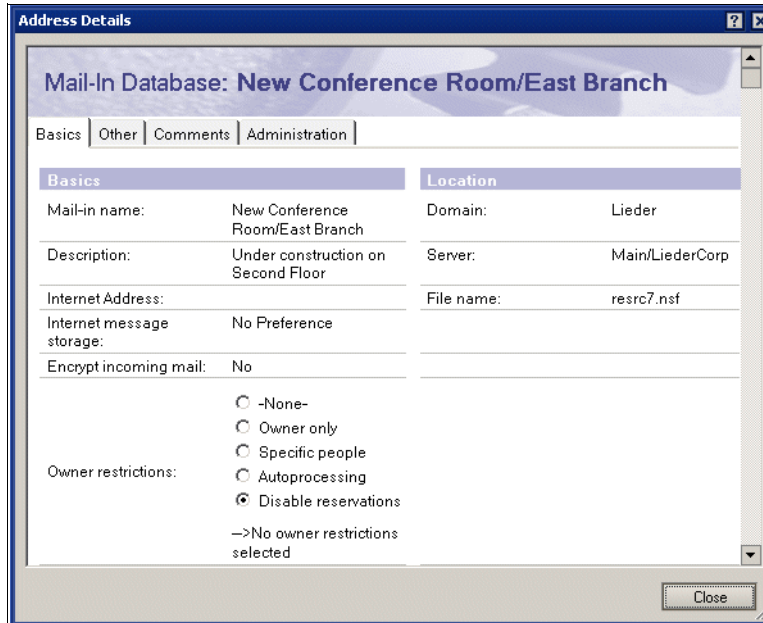
Figure 2-12   Viewing details for a restricted room

Users are presented with the Calendar Cleanup dialog (Figure 2-13) after selecting **Calendar Cleanup** from the Tools Action menu in the Calendar.
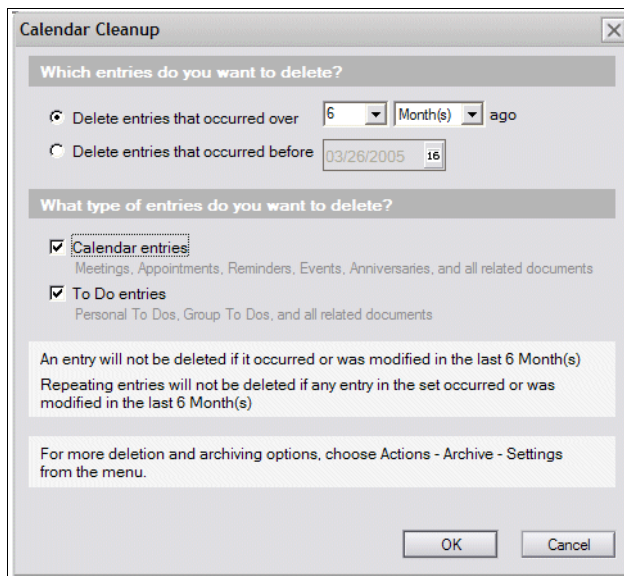
Figure 2-13   Calendar Cleanup settings

2.3.3 Lotus Sametime integration

By continuing to blend presence awareness and instant message functionality more tightly into the daily routine of communication, employees can respond more quickly to urgent issues and make informed business decisions more rapidly. As shown in Table 2-3 on page 25, Lotus Notes 7 software provides many improvements to instant message functionality integration, thereby enabling users to more effectively collaborate in a timely and productive manner.

Table 2-3   Lotus Sametime Integration

Feature	Description	Benefit
Instant message window threading	Instant messaging windows are on a separate thread.	This enhancement provides better client performance by using multi-threading to separate instant message functions from other Notes functions. This enables users to work on multiple tasks, such as creating a mail message, instant message communication, and background replication.
Chat transcripts	Transcripts of instant message sessions can now be saved, manually or automatically, to a Chat Transcript view in a mail or journal database. See Figure 2-14 on page 25 and Figure 2-15 on page 26.	This enhancement enables users to go back and find information that was discussed in instant messages easily because the information is stored in the mail file.
File menu	The File menu now includes instant message options. See Figure 2-16 on page 26.	This enhancement provides easy access to instant message functions. Note that some functions are only available if your organization has a full Web Conferencing License.
Contacts list	The Contacts List can be minimized to the task bar.	The contacts list can be made available as a separate window, making it easier to access.
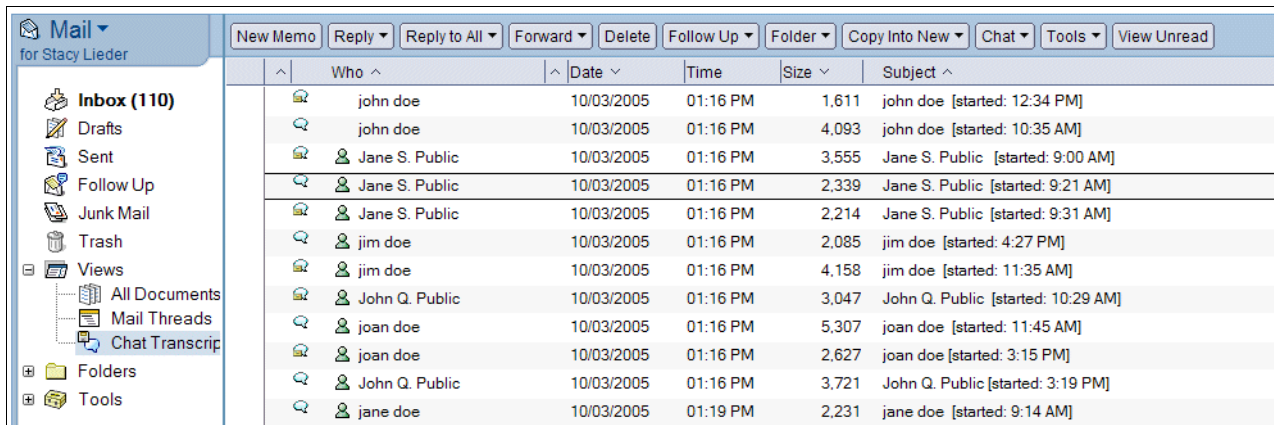
Figure 2-14   Chat transcripts view in mail file
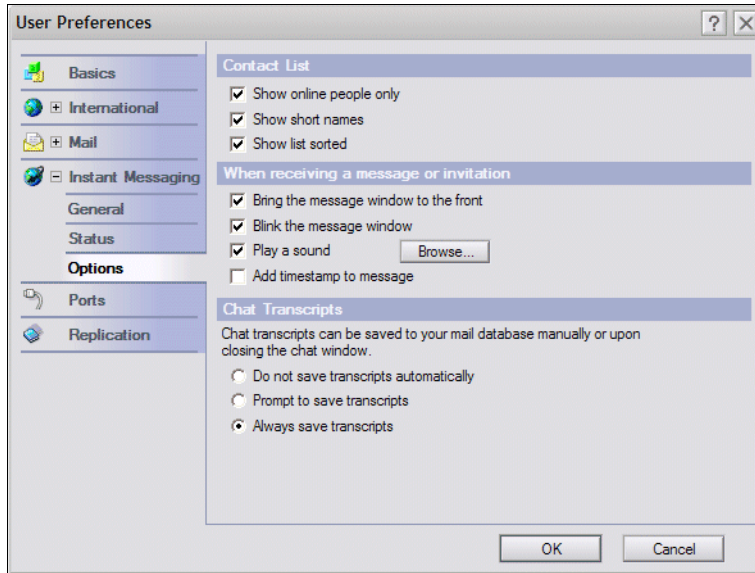
Figure 2-15   Instant message preferences
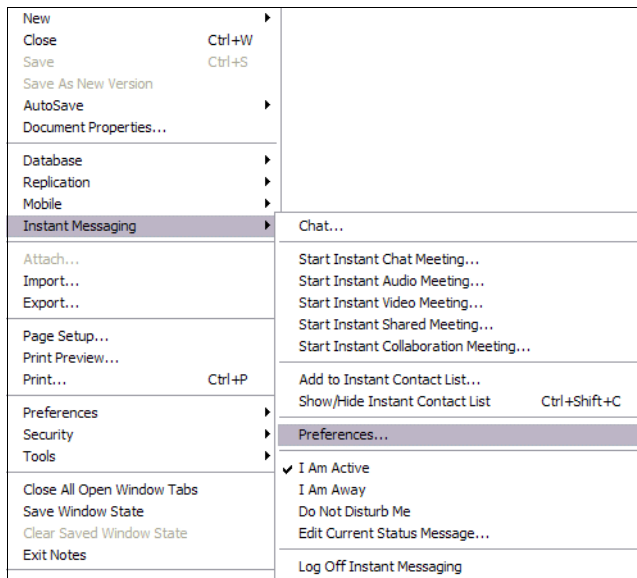
Figure 2-16   File menu access to instant message functions

2.3.4 Desktop

Continuing the theme of improved usability, Lotus Notes 7 has several general improvements to the user experience. Work need not be lost in the event of a power loss or system failure; the AutoSave feature automatically saves a local copy of documents in progress as defined in the user preferences. Users can now continue to work in other Lotus Notes windows while a database view is being updated, minimizing the time spent waiting, and can now close all open window tabs with a single mouse click.

Lotus Notes 7 provides the ability to customize the user experience based on individual and corporate preferences, and includes a sample welcome page, called *My Work*. My Work provides a portal-like interface and can be further customized by the user. Also, users now have options that allow them to save their window states.

Table 2-4   Desktop

Feature	Description	Benefit
AutoSave	Lotus Notes can automatically save in-progress documents to a local encrypted database in case you need to recover your work after a power outage or system crash. When you finish working on a document and send, save, or discard it, Lotus Notes removes it from the local database. See Figure 2-17 on page 27 and Figure 2-18 on page 28.	This feature is designed to minimize the amount of work lost in the event of an outage; users can recover work that would have otherwise been lost. Note: While some forms in the mail file are enabled for AutoSave by default, use of this feature in other forms requires that AutoSave be enabled for them using the Lotus Domino Designer client. For more information about enabling AutoSave on forms, see 5.3.6, "New AutoSave support in forms" on page 59.
AutoSave Now	AutoSave Now allows a user to force an AutoSave at any point (if working in an AutoSave-enabled form). See Figure 2-19 on page 28.	This enhancement minimizes the amount of work lost in the event of an outage, if the server becomes unresponsive, or if there is a threat of power loss.
Asynchronous view open	Asynchronous view open updates a view in the background if needed when accessed. See Figure 2-20 on page 28.	Because it is in the background, the workstation is not tied up during the update; users can work in another window while the view is being updated.
Save window state	Saving the window state preserves the collection of open window tabs, for easy access to commonly used functions.	This enhancement allows the user to define exactly what windows open upon start up, providing quick access to the most frequently used resources.
Save window state on shutdown	Each time Notes is shutdown, this option saves the collection of open window tabs.	The user can define exactly what windows open upon startup, providing quick access to the most frequently used resources.
Close all window tabs	This option closes all open window tabs at once.	Users can quickly close windows instead of requiring each window to be closed individually.
Welcome page wizard	Easily create your own personal welcome page to serve as a single point of access to frequently used resources. Welcome page wizard includes new "My Work" page, with a portal-like interface.	This option provides a user with the flexibility to set up a single entry point to desired content, such as e-mail, calendar and scheduling, instant messaging, contact lists, Web pages and databases, so each user can choose the most effective layout.
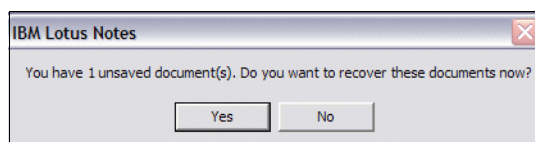
Figure 2-17   AutoSave notification
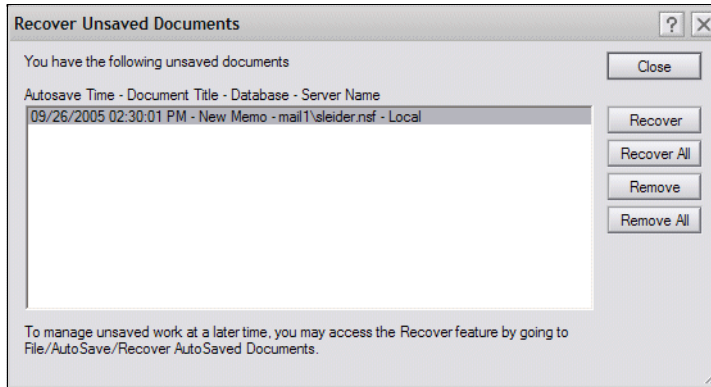
Figure 2-18   Recovering a document with AutoSave
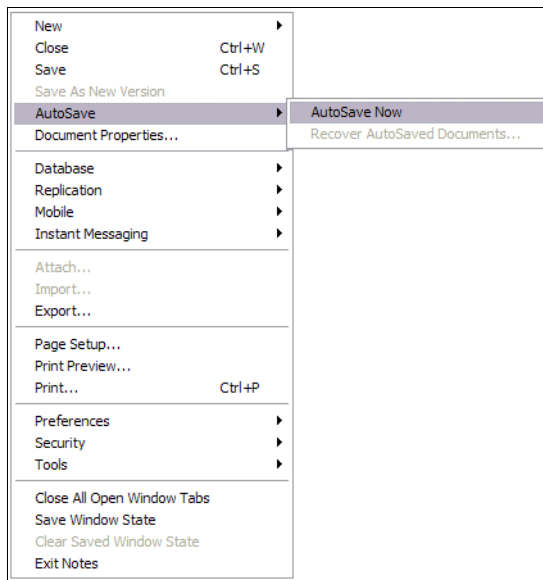
Figure 2-19   AutoSave Now
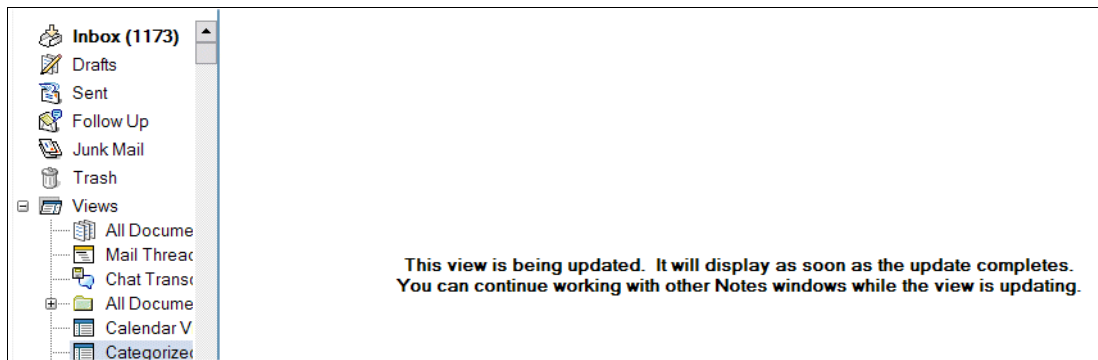
Figure 2-20   Asynchronous view open

2.3.5 Microsoft Office interoperability

Lotus Notes 7 offers tight integration with Microsoft Office 2003 or Office XP software. Users of Microsoft Office software can access Lotus Notes mail using smart tags, a new feature in Microsoft Office XP that makes some of the most common tasks easier by recognizing certain types of text in a document, such as a person's name. Smart Tags are available in Microsoft Office XP and higher, and are accessed by selecting AutoCorrect from the Tools Menu.

Smart Tag indicators usually display as a dotted line under text. When you move your mouse over text that has an indicator, the Smart Tag action button appears, offering related functions and commands. You can then click the action button and choose one of the available options. In Lotus Notes 7, you can use Smart Tags in Microsoft Office documents to send Lotus Notes mail, show name details, or invite someone to a meeting. By using Smart Tags, users can do in two clicks what traditionally requires switching applications before performing the desired function. Users benefit from the efficiency that this streamlined integration provides.

For this feature to work, Microsoft Office applications must be configured to use Smart Tags. For information about setting up Microsoft Office Smart Tags, see your Microsoft Office documentation.

Table 2-5 lists the Lotus Notes features that interoperate with Smart Tags.

Table 2-5   Microsoft Office Interoperability with Smart Tags

Feature	Description	Benefit
(Lotus Notes) Create Memo To	*Create Memo To* opens a new message with the person's name in the To field.	This feature allows a user to create an e-mail from within a Microsoft Office document, without having to switch back to Lotus Notes.
(Lotus Notes) Invite to Meeting	*Invite to Meeting* opens a new meeting form with the person's name in the Required (to) field.	This feature allows a user to create a meeting invitation from within a Microsoft Office document, without having to switch back to Lotus Notes.
(Lotus Notes) Show Name Details	*Show Name Details* opens the Name Details dialog box with information from the Address Book.	This feature allows a user to view information about the named user without having to switch back to Lotus Notes and open the address book.
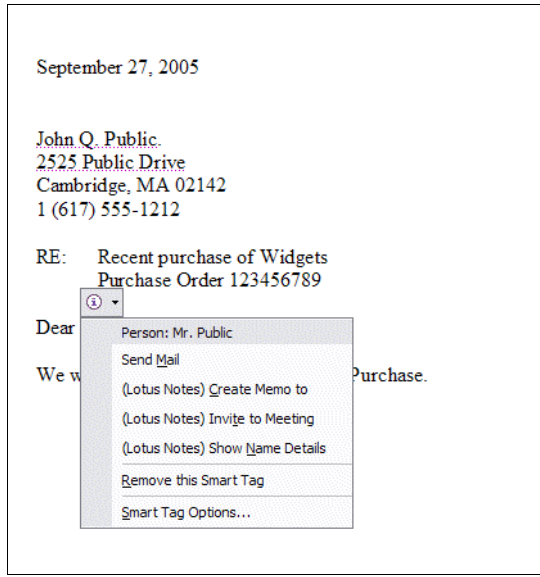
Figure 2-21   Smart tags and options in an Office document

2.3.6 Templates

As part of the enhanced integration with Lotus Sametime, presence awareness has been integrated into many commonly used templates, including those used for Lotus Notes Mail, the Lotus Domino directory, discussion databases, rooms and resources, and the personal name and address book. Also, the team room and discussion templates, rooms and resources, and document library now support the Mozilla browser. These features are described in more detail in Table 2-6.

Table 2-6   Templates

Feature	Description	Benefit
Presence awareness in templates	Presence awareness in templates provides online status of other users to a client logged in to the instant messaging feature with the Lotus Notes client, and allows instant message initiation to online users.	Users can more quickly and easily start instant messaging sessions with other users, without having to change context and launch an additional program.
Mozilla/Firefox support in templates	With this support, databases created from these templates to be accessible to Mozilla/Firefox, without needing to modify the design.	This further expands your infrastructure choices, allowing you to use the browser that best meets your organizational needs.
AutoSave enabled on some mail file forms	Some forms in the mail file are AutoSave-enabled in the standard templates. Users can take advantage of AutoSave immediately, without customization, for these forms.	This feature minimizes data lost after system failures without requiring any customization. For information about expanding AutoSave support into existing applications, see 5.3.6, "New AutoSave support in forms" on page 59.

2.3.7 Plug-in for use with IBM Workplace Managed Client

A Lotus Notes application plug-in, provided with Lotus Notes 7, allows you to run native Lotus Notes applications within the context of the IBM Workplace Managed Client product, without making any changes to existing applications. This plug-in allows you to extend the reach and viability of those applications to an IBM Workplace Collaboration Services environment. The plug-in also offers the option to integrate Lotus Notes applications with the instant message capabilities of IBM Workplace Collaboration Services software.

The highlights of the Lotus Notes plug-in to Workplace Managed Client are:

► Lotus Notes is accessible from the Application Switcher of the Workplace Managed Client.

► Lotus Notes has its own page perspective with bookmarks and tabs for documents, similar to Lotus Notes tabs.

► Lotus Notes menus are integrated in the Workplace Managed Client.

► Lotus Notes status bar messages appear as usual in the Workplace Managed client.

► Lotus Notes server and local databases are accessible and work the same way within the Lotus Notes client.

Figure 2-22 on page 31 depicts Lotus Notes running as a plug-in to Workplace Managed Client.

Figure 2-22   Lotus Notes running as a plug-in to Workplace Client

> **Note:** Before using Lotus Notes as a plug-in, you must have Workplace Collaboration Services and the Workplace Managed Client in your environment. For more information about IBM Workplace products, please see:
>
> http://www.ibm.com/lotus/workplace

2.4 Lotus Notes 7 supported platforms

The following are supported platforms for the Lotus Notes 7 Client:

► Microsoft Windows 2000 Professional, Service Pack 4

► Microsoft Windows XP Professional, Service Pack 1

► Microsoft Windows XP Tablet PC Edition (Digital Ink Input is not supported in the Lotus Notes 7 client)

On these platforms, 128 MB RAM is the minimum required, with 256 MB RAM or higher recommended.

3

IBM Lotus Domino Web Access

In this chapter, we discuss enhancements made to IBM Lotus Domino Web Access 7. Specifically, we discuss improvements in the following areas:

► Performance
► Security features
► Presence awareness
► User interface and usability
► Mail and calendar
► Linux support
► Administration

Additionally, we provide a side-by-side feature comparison between Lotus Domino Access for Microsoft Outlook 7, Lotus Domino Web Access 7, and the Lotus Notes 7 Client.

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3.1 Overview

In the modern world, access to corporate communication services (messages) and personal information, regardless of physical location, is more critical than ever. Employees require the flexibility to access important information when at home, on the road, or at a shared workstation. Lotus Domino Web Access, formerly known as iNotes™, is the premier IBM Web client for accessing a Lotus Domino-based mail file, offering a rich user experience for Microsoft Internet Explorer, Mozilla, and Firefox browsers with Dynamic HTML (DHTML). As a DHTML application, the Lotus Domino Web Access client performance is governed by server performance, network performance, and client configuration.

Lotus Domino Web Access 7 gives your employees the power to create rich text messages, schedule meetings, manage tasks, and collaborate with colleagues, whether they are using their own workstation, an Internet kiosk, or another user's PC. Offline services for the security-rich e-mail, collaboration, and personal information management features of Lotus Domino Web Access allow a mobile workforce to maintain a high level of productivity by expanding access to key information and applications.

Lotus Domino Web Access 7 software offers enhancements that can help improve user and administrator productivity and can help reduce your TCO. User productivity features, instant message integration, and security features are all improved, and these enhancements bring Lotus Domino Web Access closer to functional parity with Lotus Notes; this is important because many Domino Web Access users also use Lotus Notes.

3.1.1 How Lotus Domino Web Access works

Lotus Domino Web Access uses these components:

- ► The Lotus Domino Web server
- ► The user's browser
- ► The user's mail file, based on the Lotus Domino Web Access 7 template
- ► The user's internet password
- ► The common forms database, FORMS7.nsf

The Lotus Domino Web server stores the user's mail database, which contains personal data to be displayed, such as messages, calendar entries, and views. The logic and forms that are used to display this data (HTML and JavaScript) are maintained in a common forms database (FORMS7.NSF) and in the Web server code itself. The common logic and forms are pulled from the common forms database, and shared by all users.

When a Lotus Domino Web Access HTTP request is received by the Web server, the appropriate form is loaded from the common forms database, and the HTTP response is generated using data (if necessary) from the user's mail database. The responses can also have external references to other elements, such as style sheets, script modules, and images. When the Web browser receives the response, it renders the page by loading the HTML and any embedded script references. It also triggers additional requests to load the external references. Many of the external references are UI design elements that do not change. These elements are stored in the browser's file system cache so that the browser only has to download them through the network once. When the browser needs to reload the elements, it simply obtains the copy from its own cache. Confidential content, such as the body of a mail message, is tagged by the server so that it is not cached.

3.1.2 Requirements for Lotus Domino Web Access

The basic requirements for Lotus Domino Web Access users to access their mail files are:

- ► The user must have a Lotus Domino Web Access mail template, DWA7.NTF.
- ► The HTTP server task (the Lotus Domino Web server) must be running on the server where the mail file is stored.

Lotus Notes users can replace the design of their mail files with DWA7.NTF. Then, they can dynamically choose the access method that works best for them, access their mail file with a Web browser when needed, and continue to use the Lotus Notes client to access their mail file with no loss of functionality,

3.2 Goals and highlights

Three major themes guided the development of Lotus Domino Web Access 7:

- ► Leverage the latest Web browser technologies, on Microsoft Windows and on Linux, to access industry leading messaging and collaboration capabilities.
- ► Help reduce TCO and enhance productivity through high performance and rapid, no-touch deployment, with a minimal need for training.
- ► Provide a security-rich environment to help protect business-critical information.

With improvements across the board, Lotus Domino Web Access 7 delivers on these themes.

3.3 What's new in Lotus Domino Web Access 7: Features and benefits

Lotus Domino Web Access 7 delivers new features designed to help make users more productive, make their data more secure, and make their browser-based experience more like the Lotus Notes experience many of them know. With Lotus Domino Web Access 7, your users have an experience that is more like the full client than ever before.

3.3.1 High performance

Lotus Domino Web Access 7 includes the performance enhancements introduced with Domino Web Access 6.5.3 hotfix and included in Lotus Domino Web Access 6.5.4 and higher. Lotus Domino Web Access boasts an improvement in client response time of up to 30% to 40% (most notably on low-end computers) over Lotus Domino Web Access 6.5.3 without the hotfix. The Lotus Domino Web Access mail template has been engineered to provide increased server scalability and reduced CPU usage to help boost performance and response times both on the workstation client and on the server. In addition to the impact of Lotus Domino 7 server performance improvements discussed in Chapter 6, "IBM Lotus Domino Server 7" on page 67, Lotus Domino Web Access users have reported improved response times of up to 40 percent with client-side enhancements first implemented in 6.5.4.

For more information about Lotus Domino Web Access performance please see *Lotus Domino Web Access client performance improvements* at:

http://www-128.ibm.com/developerworks/lotus/library/dwa-clientperf/

3.3.2 Enhanced security features

So that you and your users can feel safe using Lotus Domino Web Access, security features have been improved. The highlights of security enhancements are listed in Table 3-1.

Table 3-1   Security enhancements

Feature	Description	Benefit
S/MIME support	Secure Multipurpose Internet Mail Extensions (S/MIME) and the ability to read, encrypt, sign and verify signatures using X.509 certificates are supported.	This enhancement expands the Lotus Domino Web Access secure mail capabilities beyond supporting just Lotus Notes encryption to also include S/MIME encrypted messages.
Support for password sync with Lotus Notes ID	You can change the password for the Lotus Notes ID file that Lotus Domino Web Access software uses for mail encryption, and you have the option to synchronize this password with your Internet password.	This support makes the security features easier for users to utilize.
Ability to disallow access to attachments	New configuration settings available to the administrator include an option to disallow access to mail attachments.	This ability provides greater control over your environment, and allows you to protect against malicious attachments.
Ability to force user logout	New configuration settings provide the administrator the ability to force a user logout when all Lotus Domino Web Access windows are closed. This includes clearing the browser cache and system temporary files directory so that no user data is left behind.	These settings provide the opportunity for greater security especially when public or shared computers are used to access the corporate infrastructure.
Ability to control access to Lotus Sametime Web conferences	Administrators can control access to online meetings when using Web conference integration.	This feature provides greater control of Web conference environment.

3.3.3 Expanded presence awareness and instant message integration

Lotus Sametime integration was introduced in Lotus Domino Web Access 6.5 and has been expanded in Lotus Domino Web Access 7. The new features are listed in Table 3-2.

Table 3-2   Lotus Sametime integration

Feature	Description	Benefit
Pervasive awareness	Enhanced presence awareness extends beyond the inbox to calendar and address book.	This feature facilitates better, more immediate communication among users.
Contacts list	A new default instant contact list manager allows you to easily add names to your list and change your availability status using a menu option.	This enhancement provides easier use of instant message and awareness features.
Presence awareness	Icons indicating online status appear next to the names of colleagues.	Users can easily see the online status of other users.

3.3.4 Enhanced user interface

The user interface has been improved to provide better usability, and more visual information. Table 3-3 lists these UI enhancements.

Table 3-3   UI enhancements

Feature	Description	Benefit
Mail usage indicator	Lotus Domino Web Access provides a mail file usage indicator so that users can view what percentage of their mail database is in use. Administrators enable this feature when registering users.	This option provides users with a visual indicator of how much of their mail allotment is being used.
Lotus Domino Web Access redirect	Lotus Domino Web Access users can access their mail files using the Lotus Domino Web Access Redirect utility. With Lotus Domino Web Access Redirect utility, users do not need to know the name of their mail file and mail server; they need only know the name of the Domino Web Access Redirect server.	This utility allows users easy access to their mail files when using a browser, without having to remember a long and complex URL.
Menus	Menus are present in more places on the screen and support cascaded style.	This increased presence provides users with easier access to common functions.

3.3.5 New mail productivity features

Users of Lotus Domino Web Access 7 can take advantage of the following productivity features listed in Table 3-4.

Table 3-4   Mail productivity features

Feature	Description	Benefit
Attention indicator	If enabled when using a Lotus Notes client, mail attention indicators highlight items in the user's mail file	This feature allows a user to quickly find targeted messages, making them stand out from messages addressed to large numbers of people.
Quick follow-up	The quick follow up feature allows a user to flag a document or set of documents for follow up, without displaying the Follow-up dialog box, by using defaults that are set in Preferences.	This option provides one-click flagging of messages for follow-up.
Forwarding	Non-mail objects such as calendar entries and contacts can now be forwarded as e-mail.	This feature makes sharing information easier.
Sort by subject	The ability to sort by Subject is now available for the in box.	Users can quickly find a message based on subject.

Feature	Description	Benefit
Mail threads	Mail threads can now be displayed as part of the memo header when a user clicks the Show Threads button in the action bar.	This enhancement provides the user with immediate context when viewing a message that is part of a long e-mail thread, without having to go look for the other messages.
Stationery	Users can now create personalized stationery to use when composing mail.	Users can create templates to use for messages that are sent repeatedly to the same people in the same format, such as status reports.
Mail rules	Easily set-up rules let Lotus Domino Web Access automatically process e-mail that meets specified criteria.	This feature provides users with the ability to specify actions to be taken on mail messages based on user-defined characteristics, such as sender or subject.
Delete and continue	Delete a message and continue to the next item in the in box.	Users are provided with a more efficient way to manage mail and navigate their in box, which improves usability and productivity.

3.3.6 Calendar productivity features

Calendar features have been enhanced for usability. Table 3-5 lists these enhancements.

Table 3-5   Calendar productivity features

Feature	Description	Benefit
Draft meetings	Save an in-process meeting invitation as a draft.	This feature provides users with the opportunity to Increase productivity.
Calendar details	Lotus Domino Web Access users view detailed information about each time slot when creating group calendar entries or meeting invitations.	This enhancements provides users with more information, enabling better coordination for meeting planning.
Import holidays	Administrators can import holidays to their calendars.	This feature offers an easy way for users to have all company holidays on their calendars.

3.3.7 Enhanced support for Linux

Lotus Domino Web Access 7 supports the Mozilla Foundation Firefox 1.0.x browser on both Microsoft Windows and Linux. Drag-and-drop functionality and offline scheduled synchronization is extended to supported Linux-based Web browsers, and an enhanced user interface for attachments on Linux simulates the list-style interface of Microsoft ActiveX® control.

3.3.8 New administration and management features

Lotus Domino 7 server can be set up to log activity requests from Lotus Domino Web Access, allowing administrators to track the use of Lotus Domino Web Access clients within their infrastructure. This can help administrators to more accurately determine and understand the type and mix of clients accessing their servers. By optimizing the configuration of the server based on the clients accessing it, you are likely to improve performance.

The new administration and management features are listed in Table 3-6 on page 39.

Table 3-6   New administration features

Feature	Description	Benefit
Lotus Domino Web Access configuration settings	The Lotus Domino Web Access tab of the Configuration Settings document includes new settings to: ▶ Prohibit access to rooms or resources and online meetings ▶ Set up Lotus Sametime with Lotus Domino Web Access ▶ Synchronize the user's online and offline Internet passwords ▶ Prohibit access to attachments	These configuration settings provide administrators with better granular control of the Lotus Domino Web Access environment.
Lotus Domino Web Access redirect	Lotus Domino Web Access users can access their mail files using Lotus Domino Web Access Redirect. With Lotus Domino Web Access Redirect, users do not need to know the name of their mail file and mail server; they need only know the name of the Lotus Domino Web Access Redirect server.	This feature allows administrators to direct users to a user-friendly URL to login to e-mail.
Monitor Lotus Domino Web Access users	You can monitor the number of active Lotus Domino Web Access users on a system and log Lotus Domino Web Access request information.	This enhancement provides administrators with real-world data about user activity, allowing them to make the most effective use of resources.
Browser cache management	Use browser cache management to help improve client performance and address security requirements of Lotus Domino Web Access sessions. Control which entries are stored in the cache and which are removed when the Lotus Domino Web Access session ends.	This feature offers added security capabilities.
Reuse child windows	Globally enforce reuse of windows that are already open, thereby reducing the time it takes to perform certain actions and reducing the amount of client resources consumed.	This enhancement provides better performance for the user.
Lotus Sametime configuration	Many of the NOTES.INI settings required to set up Lotus Sametime are now Configuration Settings document fields.	Administrators now have a central place to manage Sametime configuration for Lotus Domino Web Access users.

Feature	Description	Benefit
S/MIME support	S/MIME is now supported in Lotus Domino Web Access.	This support expands the Lotus Domino Web Access security-rich mail capabilities beyond Lotus Notes encryption to include S/MIME encrypted messages.

3.3.9 Lotus Domino Web Access feature comparison

With Version 7, Lotus Domino Web Access achieves near parity with the Lotus Notes 7 Client. Table 3-7 compares the features.

Table 3-7   Feature Comparison: Lotus Notes 7 and Lotus Domino Web Access 7

Feature	Lotus Notes 7 Client	Lotus Domino Web Access
Views and folders		
File type used	NSF (Server, Local)	NSF (server)
In-box view	Yes	Yes
Drafts view	Yes	Yes
All Documents view	Yes	Yes
Discussion Thread view	Yes	Yes (new in 7.0)
Folders	Yes	Yes
Nested folders	Yes	Yes
Create and delete folders	Yes	Yes
Drag messages into folders	Yes	Yes
Copy and move to folder	Yes	Yes
Discover folder	Yes (new in 7.0)	No
Unread count within folders	Yes	No
Soft Deletes	Yes	Yes
From the action bar, open mail into specific view (that is, in box, sent, drafts, etc.)	No	Yes
Message creation and addressing		
Create New Memo	Yes	Yes
Type-ahead addressing	Yes	Yes, automatic name resolution provides this function
Support file attachments	Yes	Yes
View file attachments from within message	Yes	No, third party products are available for this
Spell checking	Yes	Yes
Alternate name support	Yes	Yes

Feature	Lotus Notes 7 Client	Lotus Domino Web Access
Lotus Sametime integration	Yes	Yes
Perform name and address Book lookup	Yes	Yes
Display contacts sorted by organizational unit	Yes	Yes
Perform integrated address book lookup when sending a message	Yes	Yes
Name lookups to LDAP directories	Yes	Yes
Personal contacts address book	Yes	Yes
Delivery options (importance, delivery priority, delivery report)	Yes	Yes
Forward message	Yes	Yes
Save message draft	Yes	Yes
Create a serial route memo	Yes	Yes (new in 6.5.3)
Forward Web pages, documents from any Lotus Notes application	Yes	No
Forward document as bookmark link message	Yes	No
Copy into (convert item to task, calendar entry or new memo)	Yes	Yes
Return receipt	Yes	Yes
Prevent copying	Yes	No
Apply mood stamps to messages	Yes	No
Create and use stationery	Yes	Yes (new in 7.0)
Choose a letterhead	Yes	No
Create a message containing a signature file	Yes	Yes
Type ahead in Move to Folder dialog	Yes	No
Specify outbound message with a reply by date	Yes	No
Specify message expiration date	Yes	No
Internet message format	Yes	Yes
Viewing and responding to message items		
Support for Read/Unread marks	Yes	Yes
Navigate to next document without returning to view	Yes	Yes
Delete current document and navigate to next document without returning to view	Yes	Yes (new in 7.0)
Perform mail file delegation	Yes	Yes
Reply with history	Yes	Yes
Reply to memo	Yes	Yes
Reply to all	Yes	Yes
Reply without attachments	Yes	Yes

Feature	Lotus Notes 7 Client	Lotus Domino Web Access
View Rich Text in a message	Yes	Yes
Support for Doc links, View links, and Database links	Yes	Yes
View tables in messages	Yes	Yes
Create tables in messages	Yes	Yes
Resend documents from a delivery failure	Yes	Yes
View sections	Yes	Yes
Action bar	Yes	Yes
Add sender of message to personal contacts list	Yes	Yes
Modify and view the file ACL from client	Yes	No
Display of Importance/Type icons in views	Yes	Yes
Read encrypted mail and verify signature of signed mail	Yes	Yes
Verify signature of signed mail	Yes	Yes
Next and previous navigation from an open mail message	Yes	Yes
Preference setting for new mail on top and bottom	No	Yes
Automatically checking for new messages	Yes	Yes
Follow-up flags	Yes	Yes
Sort by subject	Yes (new in 7.0)	Yes (new in 7.0)
Light weight view navigation for low bandwidth connections	N/A	Yes (new in 7.0)
Advanced Editing features in Rich Text field		
Left, right, and center justification, indent, outdent text	Yes	Yes
Tables (simple tables, not all complex)	Yes	Yes
View sections	Yes	Yes
Support for embedded OLE objects	Yes	No
Java applet support	Yes	No
Page break	Yes	Yes
Horizontal line	Yes	Yes
Hotspots	Yes	No
Insert image resources	Yes	Yes
Create sections	Yes	No
Ability to switch language dictionaries for spelling checks	No	Yes
Support for both bullets and numbered lists	Yes	Yes
Undo	Yes	Yes
User preferences		

Feature	Lotus Notes 7 Client	Lotus Domino Web Access
New mail notification	Yes	Yes
Default Mail Send/Save setting	Yes	Yes
Ability to archive mail and Calendar and Scheduling documents	Yes	Yes
Lookup across multiple address books	Yes	Yes
Automatically create a reply message by clicking the From field	No	Yes
Security features		
Send signed mail, encrypted mail, or both	Yes	Yes
S/MIME	Yes	Yes (new in 7.0)
Read encrypted mail	Yes	Yes
Field, form, view, document, section-level security	Yes	No
User roles	Yes	No
Local encryption of mail database	Yes	Yes
Other features		
Control of database properties and design (refresh, replace, and so on)	Yes	No
Support for alternate editors for mail messages	Yes	No
Built-in news reader, POP mail, IMAP mail	Yes	No
Support for Lotus Notes and Domino database subscriptions	Yes	No
Extended search (within databases, attachments, messages, and so on), control of search (refinement of search with form, and more)	Yes	No
Drag documents between frames	Yes	Yes
User can change their own password from client	Yes	Yes
Support for mail rules	Yes	Yes
Support for Lotus Domino Server-based rules	Yes	Yes
Web access to mail	Yes	Yes
Calendar views		
From the Action bar, open Calendar into specific view (that is, 1day, 1 week, 1-month, and so on)	No	Yes
Calendar views	1 day, 2 days, 5 days, 1 week, 2 weeks, 1 month	1 day, 2 days, 5 days, 1 week, 2 weeks, 1 month, 1 year
Summarized calendar views	Yes	Yes

Feature	Lotus Notes 7 Client	Lotus Domino Web Access
Display unprocessed invites in calendar	Yes	Yes
Meeting view	Yes	Yes
Calendar print preview	No	Yes
Inline calendar view editing	Yes	Yes
Work and non-work hour differentiation	Yes	Yes
Ability for chairperson to see status of invitees from the view level	Yes	Yes
Calendar entries and group scheduling		
Double-click in the calendar view to create an entry	Yes	Yes
Create appointment	Yes	Yes
Create all day event	Yes	Yes
Create reminder	Yes	Yes
Create anniversary	Yes	Yes
Create meeting invitation	Yes	Yes
Create Rich Text in detailed description field	Yes	Yes
Centrally managed rooms and resources	Yes	Yes
Create repeating entries	Yes	Yes
Add alarms to entries	Yes	Yes
Attach a file to invitation forms	Yes	Yes
Pencil in a meeting or tentatively schedule	Yes	Yes
Mark an entry **Private/not for public viewing**	Yes	Yes
Delivery options in calendar entries	Yes	Yes
Address lookup for inviting people	Yes	Yes
Check free time availability for invitees	Yes	Yes
Free time search in a counter-proposal	Yes	Yes
Respond with comments in a counter-proposal	Yes	Yes
Edit calendar entries	Yes	Yes
Send a reschedule notice	Yes	Yes
Add additional invitees after invitation is sent	Yes	Yes
Send broadcast invitation (no RSVPs or responses)	Yes	Yes
Send meeting confirmation	Yes	Yes
Display invitee responses in invitation	Yes	Yes
Accept invitation	Yes	Yes

Feature	Lotus Notes 7 Client	Lotus Domino Web Access
Decline invitation	Yes	Yes
Counter propose an alternative time	Yes	Yes
Accept or decline with comments	Yes	Yes
Delegate an invitation	Yes	Yes
Check calendar from invitation page	Yes	Yes
Create and maintain group calendar	Yes	Yes
Create meeting invitation from group calendar view, populating group members in invitation	Yes	Yes
Accept counter proposal	Yes	Yes
Support for meetings spanning midnight	Yes	Yes
Calendar and Schedule entry support for online Lotus Sametime meetings	Yes	Yes
Ability to specify time zones in Calendar and Schedule entries	Yes	Yes
Users in different time zones can share the same server and still see meeting times with respect to their own zone	Yes	Yes
User preferences		
Set global default appointment duration	Yes	Yes
Set global default calendar entry type	Yes	Yes
Option to make free time available only to certain users	Yes	Yes
Options to set allowable free time	Yes	Yes
Enable conflict checking for calendar entries	Yes	Yes
Allow another user to manage Calendar without allowing access to e-mail	Yes	Yes
Mark default calendar entry **Not for public viewing**	Yes	Yes
Automatic processing of calendar information		
Option to remove invitations from Inbox after processing	Yes	Yes
Ability to automatically process invitations	Yes	Yes
Web access	Yes	Yes
To Do lists		
To Do lists follow day-to-day in Calendar view	Yes	Yes
Display To Do list in Calendar view	Yes	Yes
Delegate a To Do task or list to another person	Yes	Yes
Create To Do tasks or lists (with start and end dates)	Yes	Yes
Categorize new To Do entries	Yes	Yes

Feature	Lotus Notes 7 Client	Lotus Domino Web Access
Alarm notification on To Do entries	Yes	Yes
Mark To Do entries as complete or uncompleted	Yes	Yes
Create Group To Do entries	Yes	Yes
Ability to set time on To Do entries	Yes	No
Display To Do entries in Gantt chart format	No	Yes
Priorities for To Do entries (**High**, **Medium**, and **Low**)	Yes	Yes
Create personal To Do entries	Yes	Yes
Owner and Participant actions	Yes	Yes
Personal contacts		
Sort contacts by last name, company, e-mail, address, and more	Yes	Yes
Add users in Lotus Domino Directory to personal contact list	Yes	Yes
Select multiple contacts and send message	Yes	Yes
Select multiple contacts and schedule a meeting \	Yes	Yes
Business Card Summary view	Yes	Yes
Categorization of contacts	Yes	Yes
Automatically add e-mail sender to personal contact list	Yes	Yes
Attachments		
Unlimited attachments	Yes	Yes
Drag attachments from desktop and file system	Yes	Yes
Ability to rename attachments on download	Yes	Yes
Miscellaneous		
Browser support	N/A	Win32® Internet Explorer 6.0 or better (Lotus Domino 7) Firefox 1.0.x Linux Mozilla 1.7.x (iNotes6.ntf, dwa7.ntf) Firefox 1.0.x
Advanced search (contextual by text, author, or date)	Yes	Yes
Journal integrated in mail file	No	Yes
Contacts integrated in mail file	No	Yes
Ability to snooze alarms across multiple sessions and logins	N/A	Yes
Context-sensitive help	Yes	Yes

Feature	Lotus Notes 7 Client	Lotus Domino Web Access
Multilingual template support	Yes	Yes
Support for all Lotus Domino server platforms	Yes	Yes
Offline support for messaging, personal information management, and collaborative applications	Yes	Messaging, personal information management
Welcome Page Support	Yes	Yes
Mail view filter for unread messages	Yes	Yes

3.4 Lotus Domino Web Access 7 supported platforms

In this section, we list the Lotus Domino Web Access 7 supported platforms.

3.4.1 Client operating systems

The client operating systems supported are:

► Microsoft Windows 2000 Professional
► Microsoft Windows XP
► Novell SUSE LINUX Enterprise Server (SLES) 8
► Novell SUSE LINUX Enterprise Server (SLES) 9

3.4.2 Supported browsers

The supported browsers are:

► Win32 Internet Explorer 6.0
► Mozilla 1.7.x (Linux clients only)
► Mozilla Firefox 1.0.x on Win32 and Linux (supported by the DWA7 mail template only; not supported by iNotes6 templates)

Note: Lotus Domino Web Access 7 does not work if JavaScript is disabled or if session cookies are disabled.

3.4.3 Client system requirements

The client system requirements are:

► Recommended for better performance: Intel Pentium® IV 1 GHz with 512 MB of memory (Microsoft Windows and Linux clients)

► Minimum: Pentium III 400 MHz with 128 MB of memory (Microsoft Windows client); Pentium III 500 MHz with 192 MB of memory (Linux client)

For more information about system, patch, and service pack requirements, see the Lotus Notes and Domino release notes, found here:

http://www-12.lotus.com/ldd/doc/domino_notes/7.0/readme.nsf

4

IBM Lotus Domino Access for Microsoft Outlook 7

In this chapter, we discuss enhancements made to IBM Lotus Domino Access for Microsoft Outlook 7. Specifically, we focus on improvements in the following areas:

- ► Performance
- ► Security features
- ► Usability
- ► Mail and calendar
- ► Administration
- ► Installation

Additionally, we provide a side-by-side feature comparison between Lotus Domino Access for Microsoft Outlook 7, Lotus Domino Web Access 7, and the Lotus Notes 7 Client.

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4.1 Overview

Lotus Domino Access for Microsoft Outlook delivers the leading messaging, calendar and scheduling, and personal information management services of Lotus Domino to Microsoft Outlook users. Organizations can migrate from Microsoft Exchange to the reliable, security-rich Lotus Domino server without having to change clients on the desktop. Like other members of the IBM Workplace family, Lotus Domino Access for Microsoft Outlook is designed to help your people be more productive in the tasks that they perform every day.

You can improve your quality of service with the high availability and security features of Lotus Domino server, as well as capabilities that extend messaging and collaboration beyond e-mail and calendar. New functionality in version 7 further enhances performance, installation, and usability.

4.1.1 How Lotus Domino Access for Microsoft Outlook works

Lotus Domino Access for Microsoft Outlook 7 software installs as a plug-in to Microsoft Outlook 2000, 2002 (XP), or 2003 on your employees' computers. Users continue to read their e-mails, perform calendar and scheduling tasks, and manage their contact names with the same interface that they have always used. No retraining is required. However, instead of accessing Microsoft Exchange servers, they access Lotus Domino servers. Lotus Domino Access for Microsoft Outlook users are able to view their mail file data stored on the Lotus Domino server because the Lotus Domino data is replicated to a Microsoft Outlook personal message store (.PST) for use with the Lotus Domino Access for Microsoft Outlook client.

Lotus Domino Access for Microsoft Outlook 7 lets users run the Lotus Notes or Lotus Domino Access for Microsoft Outlook client over the same Lotus Domino data, which allows users to move between either client, sending and receiving messages and creating calendar entries while viewing the same data in a different perspective. In addition, users can send and receive messages and meeting requests between the Lotus Domino Access for Microsoft Outlook and native Microsoft Outlook, or between Lotus Domino Access for Microsoft Outlook and Lotus Notes, regardless of the mail client being used. Lotus Domino Access for Microsoft Outlook 7 users and native Microsoft Outlook users cannot view the busy time information for one another, however, because the native Microsoft Outlook client runs in a Microsoft Exchange server.

4.2 Goals and highlights

Whether you are migrating users from Microsoft Outlook to Lotus Notes or simply providing coexistence between both types of clients, Lotus Domino Access for Microsoft Outlook 7 builds upon the great feature set introduced in version 6.5.1and the performance improvements included in version 6.5.4 of Lotus Domino Access for Microsoft Outlook. The following themes have guided the development of version 7:

- ► Provide Microsoft Outlook users with the robust, proven server security features and the replication and clustering capabilities of Lotus Domino software, including failover.
- ► Decrease or eliminate retraining by allowing users to read e-mail, perform calendar and scheduling tasks, and manage personal data with the Microsoft Outlook client.
- ► Reduce network traffic by transporting messages using Lotus Domino advanced streaming replication and built-in data compression.
- ► Allow users to access e-mail, calendar and address book when offline using the local Microsoft Outlook .PST file.

- Install smoothly with Microsoft Standard Installer technology so that you can easily update user desktops using your company's standard software delivery.

Great performance, robust security features, and a seamless transition for end users all add up to the opportunity to increase productivity. Add to that the ability to leverage existing investments in client technology, and the benefits to TCO for Lotus Domino Access for Microsoft Outlook 7 are clear.

4.3 What's new in Lotus Domino Access for Microsoft Outlook 7: Features and benefits

The highlights of Lotus Domino Access for Microsoft Outlook 7 include:

- Native support for Internet standards, including X.509 and S/MIME
- Client software performance enhancements, reducing the time to launch the application compared to version 6.5.3
- Installation option for separate program and data directories that allows configuration of more than one user on the same machine, using Microsoft Windows operating system security features
- New mail notification: User options include playing a sound, briefly changing the mouse cursor, and showing an envelope icon in the notification area
- Option to use a local copy of your global address book: This can be a full copy of the directory or a condensed directory catalog to save space on your workstation
- Ability to sync Lotus Domino Access for Microsoft Outlook with your personal digital assistant device, in the same manner you would sync the native Microsoft Outlook client

4.3.1 Performance

Performance was dramatically improved on the client with the release of 6.5.4. Lotus Domino Access for Microsoft Outlook 7 continues to deliver that performance.

4.3.2 Security features

The security feature enhancements that are listed in Table 4-1 have been included with Lotus Domino Access for Microsoft Outlook 7.

Table 4-1   Security

Feature	Description	Benefit
Single sign on	Lotus Domino Access for Microsoft Outlook 7 supports the ability to use your operating system credentials to log in. This feature is available as an option during installation.	This support provides a more seamless experience for the user.
X.509	You can send and receive messages encrypted with x509 certificates from recipients outside of the Lotus Domino Domain.	This support provides easier access to security rich messaging.

Feature	Description	Benefit
Lotus Notes decryption on receive	Messages that are sent with Lotus Notes Encryption are decrypted automatically.	This feature allows Lotus Notes users to take advantage of greater security when sending messages and allows Microsoft Outlook users to read encrypted messages without any special action requirement.

4.3.3 Directory

Lotus Domino Access for Microsoft Outlook supports the ability to store a local copy of your global address book so that users can access their contact information while travelling. Lotus Domino Access for Microsoft Outlook supports both full copies of the directory or condensed directory catalogs.

4.3.4 Other enhancements

Lotus Domino Access for Microsoft Outlook version 7 has some additional improvements. These are listed in Table 4-2.

Table 4-2   Other enhancements

Feature	Description	Benefit
High availability	Take advantage of high availability features of Lotus Domino 7 server such as clustering, server fault recovery, and predictive analysis tools that can help identify and resolve issues before they arise.	This improvement provides users with uninterrupted access to e-mail, enabling them to maintain productivity.
New mail notification	Users can now enable the software to perform any or all of the following standard Microsoft Outlook options when new items arrive in the in box: ► Play a sound. ► Briefly change the mouse cursor. ► Show an envelope icon in the notification area.	This feature allows users to continue to be notified of new mail in the manner to which they are accustomed.
Spam control	Lotus Domino Access for Microsoft Outlook software leverages Lotus Domino server anti-spam technology, allowing you to manage junk mail at the server level, reducing the amount of unwanted e-mail that reaches your user in boxes.	This control allows users to be more productive by reducing the time spent dealing with unwanted e-mail. For more information about spam control in Lotus Domino 7, see Section 6.3.5, "Messaging and spam" on page 86.

Feature	Description	Benefit
Ability to set Lotus Domino preferences from within Microsoft Outlook	The Lotus Domino preferences page allows users to perform a variety of tasks, including: ► Change the password for their Lotus Notes ID. ► Enable or disable the out-of-office agent. ► Manage replication settings. ► Allow access to their mail and calendars.	This feature provides users with greater control over preferences.

4.4 Lotus Domino Access for Microsoft Outlook 7 supported platforms

In addition to operating system requirements, Lotus Domino Access for Microsoft Outlook 7 also has version requirements for Microsoft Outlook. Note that Lotus Domino Access for Microsoft Outlook 7 requires a Lotus Domino 6.5.1 server or higher.

4.4.1 System and Outlook requirements

The following four items are required to use Lotus Domino Access for Microsoft Outlook 7:

► Microsoft Windows OS (Windows 2000 Professional or Windows XP Professional) on a workstation

► One of these versions of Microsoft Outlook:

– Microsoft Outlook 2000
– Microsoft Outlook XP with SP3
– Microsoft Outlook 2003 with SP1

► Lotus Domino Server 6.5.1 or later

► Mail databases created using a Mail7.NTF, Mail7ex.NTF or DWA7.NTF template

On client systems, 128 MB RAM is required, but 256 MB or higher is recommended.

For more information about system, patch, and service pack requirements, see the product documentation page at:

http://www-10.lotus.com/ldd/notesua.nsf/find/damo

5

IBM Lotus Domino Designer 7

In this chapter, we discuss the enhancements to IBM Lotus Domino Designer 7. Main areas of improvement include:

- ► Programmability enhancements
- ► Usability enhancements
- ► Application troubleshooting enhancements

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5.1 Overview

Competition is fierce. Customers are demanding faster service and better products. And the business landscape is constantly changing. The need to stay ahead and effectively respond to market demands is driving organizations to deliver their products and services more quickly and cost-effectively than ever before. To meet these goals, companies want their business processes to be more efficient, more accessible, and easier to follow by delivering business applications that are enhanced with collaboration capabilities, but without incurring high costs or facing long development cycles.

Lotus Domino Designer software is a rapid application development tool that provides an intuitive, integrated development environment for building and managing your Lotus Domino applications. With Lotus Domino Designer software, developers and Web site designers can quickly build security-rich, multi-platform collaborative applications to help streamline business processes and increase workflow efficiency. Intuitive, GUI-driven, point-and-click tools provide you with the capabilities to develop applications that can be accessed from Lotus Notes clients, Web browsers, business portals, and mobile devices. Lotus Domino Designer software also can help you quickly and cost-effectively deliver multilingual applications to facilitate global deployment.

The open development environment of Lotus Domino Designer software lets you leverage Lotus Domino server, which provides a robust platform for deploying collaborative applications on a wide variety of supported operating systems. With Lotus Domino Designer software, you can create collaborative applications based on templates that are ready to use, such as discussion databases or team rooms. You can also add presence awareness to Lotus Notes applications. With increased online awareness and instant messaging capabilities, users can interact with other team members in real time and enhance their productivity.

5.2 Goals and highlights

Three themes guided the ongoing development of the Lotus Domino Designer and Application Development Platform:

► Tighter integration with evolving Web standards
► Increased interoperability with other IBM Software products
► Improved ease of use for application developers and for users

With Version 7, Lotus Domino Designer software builds on its reputation for being the premier collaborative application development tool for Lotus Domino software-based applications. As an integral part of the IBM Workplace family, Lotus Domino Designer software helps companies improve employee productivity and build and deploy Lotus Domino applications more quickly, thereby enabling organizations to be more responsive to changing business initiatives. New features focus on tighter integration with Web standards, more interoperability with IBM technologies, and ease of use. Lotus Domino Designer software is designed to allow novice developers to customize applications based on supplied templates, while providing advanced developers with the robust performance and features necessary to create business-critical applications.

With Lotus Domino Designer 7, you are able to:

► Rapidly build, test, and deploy security-rich, mission-critical business applications in an open development environment.

► Extend the reach of Lotus Domino applications to business portals.

- Utilize Java or LotusScript technology to create Web services and expose Lotus Domino applications to external systems.

- Leverage IBM DB2 Universal Database software as an optional data store to build applications that blend collaborative services with relational data.

- Boost the efficiency of users and developers with enhanced usability and productivity features.

- Leverage existing development skills with programmability enhancements.

Lotus Domino Designer software helps you develop and manage applications more easily than ever before while leveraging the current skills of your development team, helping to both preserve IT assets and reduce the costs associated with learning new skills and languages. With the comprehensive and open development environment of Lotus Domino Designer software, designers can build and deploy applications on existing platforms while using industry-standard programming tools such as JavaScript, Java/CORBA, XML, Microsoft COM/OLE, MAPI, JSP tags, and C/C++ APIs.

By providing a choice of multiple programming languages, Lotus Domino Designer software enables developers to select the most appropriate programming language for their application and use the skills that they already have. Lotus Domino Designer 7 software continues to support the Lotus Notes formula language and the Lotus scripting language, LotusScript, as well as JavaScript. The Lotus Notes formula language is a procedural, command-level language, and LotusScript is a scripting language. Designer also expands its support of the Java programming language.

Finally, added support for Java Platform Debugger Architecture (JPDA) and the introduction of *code profiling* in Lotus Domino Designer 7 can help improve your ability to troubleshoot application problems. Code profiling is a powerful tool that can assist you with the fine-tuning of application performance, especially when used in conjunction with agent probes, discussed in "Lotus Domino domain monitoring" on page 74,

5.3 What's new: Features and benefits

Lotus Domino Designer 7 provides powerful tools for building applications, providing you not only with the flexibility of new capabilities that you need to quickly build effective applications, but also with an improved interface for developing those applications.

5.3.1 Web services

Lotus Domino Designer 7 software continues its legacy of supporting new standards to extend its rapid application development model by providing the ability to turn Lotus Domino applications into Web services hosted on a Lotus Domino server. Web services are self-contained modular applications that are able to work together without relying on custom-coded connections, because they are built on open standards. As Web services allow different applications and IT systems to interact with each other, service components can be combined and recombined on the fly, enabling companies to respond rapidly to changing business and customer needs.

Lotus Domino 7 offers native support for Web services, including a Web services hosting environment based on Simple Object Access Protocol (SOAP). Lotus Domino Designer 7 also includes a Web services design element and built-in support for Web Services Description Language (WSDL). Using these capabilities, you can rapidly create or extend Java or LotusScript code with Web services, thereby exposing thousands of Lotus Domino applications to external systems, such as J2EE applications and Microsoft .NET applications.

5.3.2 Lotus Notes formula language

The Lotus Notes formula language has been updated in Designer 7. New @Functions have been introduced in support of DB2 and Workplace client technology integration and in support of Policy and ECL Locking security features. Also added is a new @Command to locate every folder that contains the selected document.

The new commands and functions are:

- ► @AdminECLIsLocked (new function)
- ► @DB2Schema (new function)
- ► @IsDB2 (new function)
- ► @IsEmbeddedInsideWCT (new function)
- ► @PolicyIsFieldLocked (new function)
- ► @Command([DiscoverFolders]) (new command)

For more information about these functions and commands, see Lotus Domino Designer 7 help:

http://www-12.lotus.com/ldd/doc/domino_notes/7.0/help7_designer.nsf

5.3.3 LotusScript properties and methods

LotusScript has been updated with improved capabilities, including:

- ► Support for the new code profiling
- ► Improved document collection capabilities
- ► Expanded XML support
- ► Support for integration with Workplace Client Technology

One highlight of Lotus Domino Designer 7 is a new property that has been added to LotusScript. The property *NotesUIDocument.ModifiedSinceSaved* detects changes made to a document in edit mode since the last save.

For more information about the updates to LotusScript in Lotus Domino Designer 7, see Lotus Domino Designer 7 help:

http://www-12.lotus.com/ldd/doc/domino_notes/7.0/help7_designer.nsf

5.3.4 Expanded Java support

Lotus Domino Designer 7 software supports a new version of Java, Java Virtual Machine (JVM™) 1.4.2, and a new version of the XML parser. With a new check-box feature and Java debugging preferences, you can set up Java agents, Web services, and script libraries for remote debugging in the Lotus Notes client.

Lotus Domino Designer 7 offers the following new and enhanced features:

- ► Sun core Java documentation for Java/CORBA classes
- ► Support for the Sun Java™ 2 Platform, Technology Edition, v 1.4.2.
- ► AdministrationProcess.approveHostedOrgStorageDeletion (new method)
- ► Database.getModifiedDocuments (new method)
- ► DocumentCollection.UntilTime (new property)
- ► Support for JPDA

For more information about Java and CORBA support in Lotus Domino Designer 7, see Lotus Domino Designer 7 help:

http://www-12.lotus.com/ldd/doc/domino_notes/7.0/help7_designer.nsf

5.3.5 New view capabilities

In this section, we discuss the new view capabilities that are available in Lotus Domino Designer 7.

Support for shared columns

Lotus Domino Designer 7 software provides the ability to create shared columns that can be used in views and folders. This capability helps increase developer productivity by allowing settings to be maintained once and reused throughout an application. Changes to a shared column definition are automatically reflected wherever the shared column is used. By clicking an action button in the design list, you can see at a glance which views and folders in the database are using the selected shared column.

Support for multiple user profile view columns

A column property called *User Definable* allows the developer to design a column formula based on profile documents in the database. In previous versions of Lotus Domino Designer software, this feature provided programmatic control of row text and row background colors. Lotus Domino Designer 7 provides increased profile document support for view and folder columns to permit more runtime options in applications. A good example of this is in the Lotus Notes 7 mail template. The Inbox folder contains a mail attention indicator column and a hidden column that controls color coding. Contents and behavior of both of these columns are defined by the user's mail preferences.

5.3.6 New AutoSave support in forms

Lotus Notes 7 software includes an AutoSave feature that helps prevent data loss in the event of a power outage, software failure, or workstation failure. When IBM started developing AutoSave, we had the following goals in mind:

► Users must be able to AutoSave documents at user-specified fixed intervals.

► Users must be able to recover saved documents when they start the Lotus Notes client after it fails for any reason.

► AutoSave must include security features that can ensure that no user information is left unencrypted.

► AutoSave must be fast and must avoid any extra server activity.

► Users must be able to turn AutoSave on and off, as controlled by administrators through a policy.

Lotus Domino Designer 7 software takes advantage of this feature by adding the ability to enable any form in a Lotus Notes application to support the AutoSave feature. If users activate AutoSave in their Lotus Notes preferences, documents that they create or edit using an AutoSave-enabled form is saved to a special local database at a user-specified interval. Additionally, if the server is unresponsive, the user can force an AutoSave from the file menu. How users can take advantage of AutoSave is briefly covered in 2.3.4, "Desktop" on page 26

Once a document is saved in the application, the document is removed from the AutoSave database until modified again. Should the software go down while a document is being edited, the user is presented with a dialog box when Lotus Notes software is restarted, offering the ability to recover any unsaved documents as needed.

Enabling a form for AutoSave is very simple; simply open the database in Designer and select **Allow AutoSave** in the Form properties dialog, as shown in Figure 5-1 on page 60.

Figure 5-1   Enabling AutoSave for a form

5.3.7 DB2 support

Lotus Domino 7 server offers the option to use IBM DB2 Universal Database software as an alternative to Lotus Notes storage facility to store individual Lotus Notes databases. Lotus Domino Designer 7 software introduces two design elements that complement this feature: DB2 access views and query views. Using these capabilities, you can build applications that blend collaborative services with relational data and access Lotus Domino data using SQL.

Initially, IBM is offering interested Lotus Domino 7 customers the opportunity to try, on an evaluation basis, the IBM DB2 data store integration feature. The DB2 data store feature can be enabled in Lotus Domino 7 with a software key available to you as part of this trial program. The goal of this program is to allow you to test and evaluate the DB2 integration capability and to begin testing your Lotus Notes applications with DB2. Customer participation in this program provides IBM with continuous feedback that helps us improve this feature for future Lotus Notes and Domino releases. Please visit the Domino 7 product page for latest details:

http://www.lotus.com/products/product4.nsf/wdocs/nsfdb2

DB2 access views

A DB2 access view is a shared resource that lets you define a DB2 view of Lotus Notes data, exposing fields in a Lotus Domino application to DB2 applications, such as reporting and query tools. A DB2 application can create, update, or delete Lotus Notes data from the DB2 access view using the Lotus Domino security model. Other non-Lotus Domino applications can similarly access the information using Open Database Connectivity (ODBC).

DB2 query views

Query views allow relational data to be displayed in Lotus Notes views and embedded views. The query view differs from the simple search-based view and formula-based view because the rows displayed in the view are controlled by a SQL statement by the user or developer. Using query views, you can join data from multiple Lotus Domino and DB2 applications in a single Lotus Domino view.

5.3.8 Code profiling

Code profiling is a new feature that allows you to optimize code in your Lotus Domino Applications; the tool that does this is called Profiler. Profiler measures the time it takes to perform each method in the agent logic, thus helping you identify bottlenecks. This tool allows you to concentrate on the portions of the code that take the longest amount of time and have the most impact.

Profiler profiles back-end methods in Java and LotusScript. It profiles Lotus Domino back-end methods, that is, operations on back-end objects, for example, `dir.OpenDatabase(†b.nsf\)`, not standard language constructs (for example, `Open fileName$`).

To profile an agent, the agent profiling has to be turned on for that particular agent. This setting is found in the second tab of the Agent Properties box (Figure 5-2). After the profiling toggle is turned on, the next time the agent runs, it is profiled.
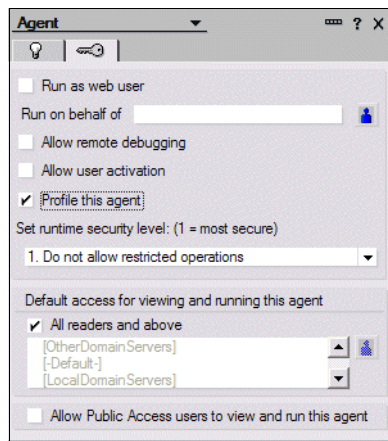
Figure 5-2   Enabling code profiling in Agent properties

Agents can be profiled regardless of how they run (for example, as a scheduled agent, as a Web agent, or manually from the Action menu). The profiling information is stored in a Profile document in the database that is associated with the agent.To view profiling information, select the agent that you are profiling in Lotus Domino Designer, and then choose **Agent - View Profile Results**.

At the top of each Profile document, the name of the agent and the time that the profiling was done are recorded. Elapsed time is the total amount of time that the agent ran, followed by a total measured time, which is typically somewhat smaller because time values are rounded down for display purposes. For example, the values under one millisecond are displayed as zeros in the Profile document. The profiling table contains the class, the method, the operation, the total number of calls to that method, and the total amount of time spent on all calls to that method. The information in the table is sorted in descending order, showing the methods where the most amount of time was spent at the top. In the example shown in Figure 5-3 on page 62, the Profile Output shows that the `UpdateFTIndex` method is the most time-consuming part of this agent.

```
ProfileExample Profile

08/25/2005 01:39:53 PM EDT
Elapsed time: 41059 msec
Methods profiled: 6
Total measured time: 37023 msec
```

Class	Method	Operation	Calls	Time
Database	UpdateFTIndex		27	36113
Database	Open		27	910
Database	Title	Get	27	0
Database	FileName	Get	27	0
DbDirectory	GetNextDatabase		26	0
DbDirectory	GetFirstDatabase		1	0

Figure 5-3   Code profile output

By capturing data upon real-world agent execution, code profiling provides developers with valuable information, allowing them to identify bottlenecks in code execution. Armed with this information, the developer can then modify agent logic to improve execution time. Ultimately, this can add up to increased user satisfaction and the opportunity for improved productivity.

5.3.9 Usability improvements

Lotus Domino Designer 7 provides a host of usability and productivity enhancements to the Lotus Domino Designer interface to help your developers be more productive.

Design lists have been improved for display and usability. These enhancements include those listed in Table 5-1.

Table 5-1   Server administration improvements

Feature	Description	Benefit
Rearranged UI	Rearranged screen real estate allows key information to be displayed on one screen. See Figure on page 64.	This enhancement provides more information without requiring the developer to scroll or change windows.
Icons in design list	Icons indicate attributes of a design element: ► No Refresh/Replace ► Inherits from specific template ► Available to Lotus Notes clients ► Available to Web browsers ► Available to mobile devices	This enhancement visually provides information to developers about design elements.
Edit-in-place in design list	Application designers can now change a design element name, alias and comments directly in the design lists.	Fewer steps are required to update information about design elements.
Resizable columns	Widths of resizable columns are saved.	This feature provides easier customization of views.
Help	Hover help is now available for design list icons.	Hover help provides easy access to assistance.

Feature	Description	Benefit
Sorting	Design lists can be sorted by the contents of the comment column.	This enhancement allows designers to find design elements more easily.
Sign from Design List	Certain elements can now be signed from the design list, including: ► Agents ► Web services ► Script libraries	This feature allows designer to sign design elements more easily.
Close all open Lotus Domino Designer window tabs from File menu	You can close all open Lotus Domino Designer window tabs at one time by clicking an option from the File menu.	This enhancement offers an easy way for developers to easily clean up their work areas and begin working on something different.
Close confirmation	Developers are asked to confirm the closing of Lotus Domino Designer.	This feature helps developers avoid inadvertently exiting Lotus Domino Designer while closing individual windows or Web browser sessions.
LotusScript Debugger	The LotusScript Debugger state is now shown in the status bar, rather than as a dialog box, and the toolbar icon appears as depressed when debugger is enabled.	This enhancement provides less obtrusive access to the debugger.
Input enabled field event for Notes client	Lotus Notes style fields are supported in addition to Native OS style fields, although this does not support Rich Text or Rich Text Lite.	Developers can now use formulas to conditionally allow edit access to individual fields for a document in edit mode.
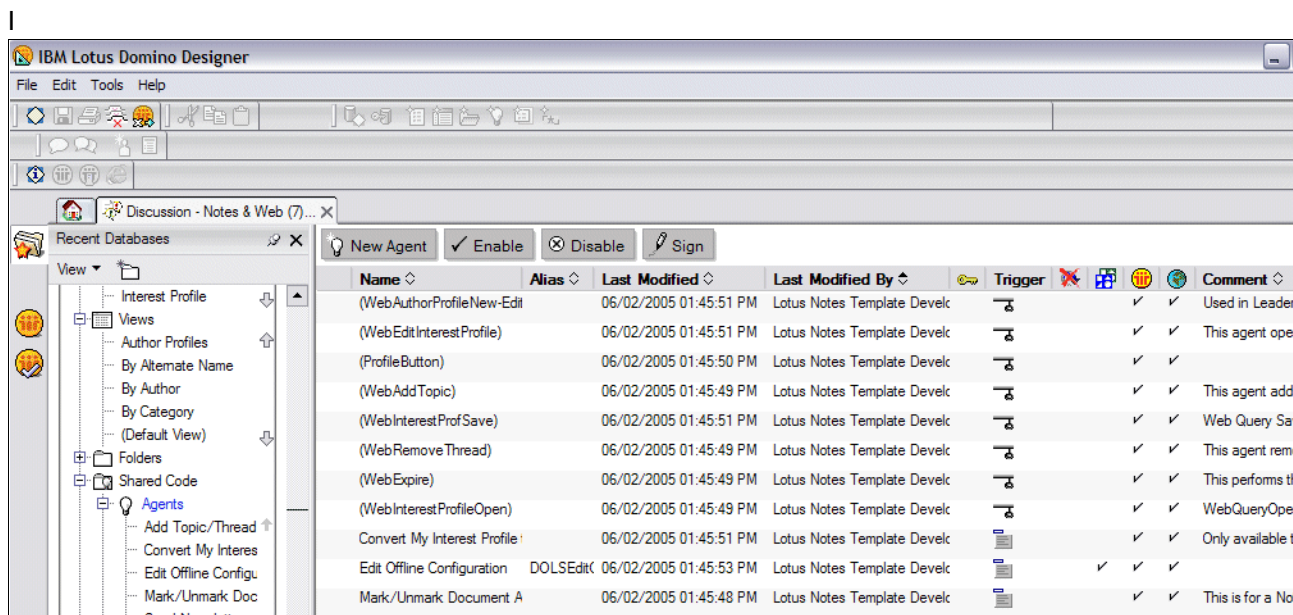
Figure 5-4   Improved UI with ability to sign Agents from design list and sortable Comments column

The UI in Lotus Domino Designer 7 (Figure 5-5) provides you with a lot of information at a glance.
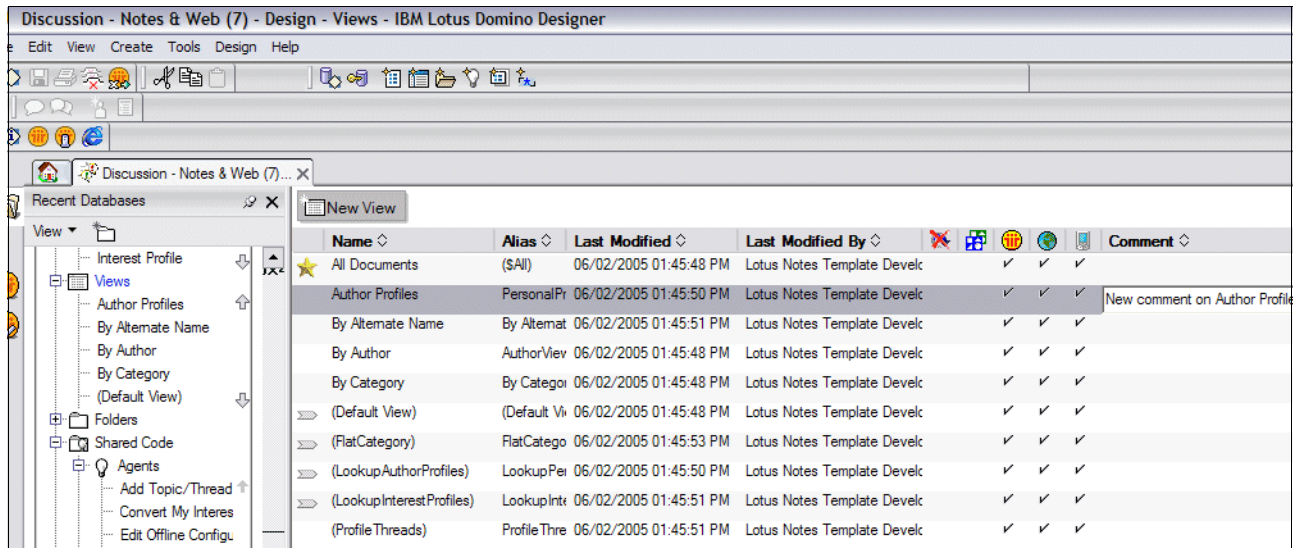
Figure 5-5   View Design list, showing icons, and in-place editing of comments.

5.3.10 Portal integration

You have the option to use portlets to extend the reach of your existing Lotus Domino applications to IBM Workplace Collaboration Services and IBM WebSphere Portal software.

Portlets are Java technology-based applications that serve as a delivery mechanism for your Lotus Domino data. IBM provides a wide range of tools to help developers create portlets, from prebuilt portlets to robust programmatic interfaces. Three options are supplied with WebSphere Portal software or are available from the IBM Workplace Solutions Catalog:

► Lotus Notes and Domino and Extended Products Portlets deliver a set of prebuilt portlets and sample pages and provide easy access to Lotus Notes and Domino applications and Lotus Domino extended products, such as Lotus Sametime software.

► The Lotus Domino Application Portlet allows Lotus Domino Web applications to be surfaced in a portlet while maintaining the full functionality of the application and without design changes.

► Portlet Builder for Lotus Domino provides a wizard-driven interface to let users quickly and easily build other portlets to access and manipulate Lotus Domino technology-based data.

In addition to the three prebuilt portlet options, WebSphere Portal Version 5.1 incorporates Common Personal Information Management Portlets that allow portal access to several back-end mail systems and protocols, including Lotus Domino mail and calendars.

5.4 Lotus Domino Designer 7 supported platforms

The following are supported platforms for Lotus Domino Designer 7:

► Microsoft Windows 2000 Professional, Service Pack 4
► Microsoft Windows XP Professional, Service Pack 1

For these platforms, 128 MB RAM is the minimum required, with 256 MB RAM or more recommended.

6

IBM Lotus Domino Server 7

IBM Lotus Domino Server 7 (hereafter referred to as Lotus Domino 7) has improvements in many areas. This chapter examines the following enhancements:

► Performance and scalability
► Server administration, monitoring, and troubleshooting
► User administration
► Upgrade and installation
► Messages and spam
► Room and resource scheduling
► Directories
► Security features
► DB2 support

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6.1 Overview

Lotus Domino 7 continues to build on the strong foundation laid by previous versions of Lotus Notes and Domino. Reliability, availability, and serviceability have all been improved. Performance and scalability have reached new levels. Security features and anti-spam protection have been fortified. Powerful new monitoring and administration tools have been introduced. Support for Web Services and DB2 (both discussed in Chapter 5, "IBM Lotus Domino Designer 7" on page 55) have been added while platform support remains unmatched. The synergy of the combined effect of these enhancements presents a powerful proposition.

The new and improved features of Lotus Domino 7 allow you to leverage your existing investments in hardware, operating systems, application software, and administration skills. Lotus Domino 7 provides you with the flexibility to choose the most appropriate server and client platforms, and take advantage of important new features without having to overhaul your entire environment. The result is a very attractive value proposition: the potential to decrease the TCO of your messaging and application infrastructure while enabling increased productivity. To this end, Lotus Domino 7 was designed with you in mind.

As an integral part of the IBM Workplace family, Lotus Domino 7 helps you improve the productivity of your people and enables users to share, manage, and organize information more efficiently. Lotus Domino includes a host of integrated messaging and directory services that provide world-class e-mail, calendar and scheduling capabilities, collaboration tools, and address books in a unified, easy-to-manage architecture. Beyond messaging, Lotus Domino 7 provides a robust platform for developing and deploying collaborative applications on a wide variety of operating systems. With Lotus Notes and Lotus Domino software, you can build and run collaborative solutions, such as project management tracking and customer support processes, which can help your organization to be more responsive and productive.

6.2 Goals and highlights

Budgets are tight. Skilled resources are hard to find. Pressure from competitors is increasing. And customers are demanding faster and better service. In times of shrinking budgets, fewer human resources, and rapid changes in the business environment, organizations must focus on leveraging their existing application and IT assets to help reduce costs and increase employee productivity. To maintain a competitive edge and improve responsiveness, companies must maximize productivity and facilitate collaboration between customers, partners, and suppliers.

In today's business environment, three key issues present themselves:

► Maximize the value of your IT investments, given lack of resources and minimal budgets.
► Benefit from improved performance, scalability, reliability, availability, and security features.
► Increase return on investments in applications and employees (your human resources).

These issues permeate nearly all organizational IT decisions. Because IBM wants you to succeed, they were the foundation for the development goals that were established for Lotus Domino 7.

Note: This section focuses on Lotus Domino 7 improvements in performance and administration; for information about enhanced application development platform support, see Chapter 5, "IBM Lotus Domino Designer 7" on page 55.

6.2.1 Goals

Development of Lotus Domino 7 was driven by two major goals:

► Addressing TCO

To help you decrease TCO, IBM focused on improving performance and scalability and decreasing the administrative burden.

► Expanding application development platform support

The Lotus Domino application platform has been expanded through support for Web Services and DB2, enhanced support for Java, and other programming enhancements.

6.2.2 Highlights

The administration tools in Lotus Domino 7 are designed to help you manage your infrastructure more effectively and leverage your existing infrastructure investments. Enhanced performance and improved server scalability facilitate the deployment of messaging and collaboration solutions while using fewer resources. Unmatched platform support allows you to choose the right platform for you, and advanced security and mail management features can help you control information access and limit unwanted mail.

TCO

Lotus Domino 7 can help you improve employee productivity, enhance interoperability and integration, and simplify administration, all of which can also help lower your TCO. With Lotus Domino 7, IBM extends the reach of Lotus Notes and Domino messaging and collaboration solutions while allowing you to continue leveraging your IT and application investments.

Backward compatibility

Backward compatibility is fundamental to Lotus Domino. Version 7 facilitates a smooth upgrade by allowing developers to extend existing Lotus Domino application investments and reuse them over a much broader domain that includes J2EE application frameworks and Microsoft .NET environments.

Platform flexibility

Lotus Domino 7 offers flexibility and choice in supported hardware platforms and operating systems. Lotus Domino 7 runs on IBM AIX, IBM i5/OS, IBM z/OS, Linux (for Intel and IBM @server zSeries®), Microsoft Windows 2000 and 2003 and Sun Solaris platforms. You can now choose how you want to deploy your messaging and collaboration infrastructure, without having to overhaul your entire environment and without becoming dependent on specific hardware or software.

Lotus Domino 7 also allows you to choose the most appropriate client access for your infrastructure environment and needs. Through a variety of client options, your employees can use feature-rich e-mail and scheduling capabilities to share information with key constituents and communicate more quickly. These options include:

► Lotus Notes client software, discussed in Chapter 2, "IBM Lotus Notes 7 Client" on page 13

► Support for Web browsers running in Microsoft Windows or Linux systems (using Lotus Domino Web Access software, discussed in Chapter 3, "IBM Lotus Domino Web Access" on page 33)

► Microsoft Outlook (using Lotus Domino Access for Microsoft Outlook software, discussed in Chapter 4, "IBM Lotus Domino Access for Microsoft Outlook 7" on page 49)

- ► Internet clients based on POP3 or IMAP with a Lotus Domino WebMail client access license

- ► Supported mobile devices (using separately acquired mobile messaging and collaboration software products that support Lotus Domino 7, including IBM Lotus Domino Everyplace® software and select products supplied by independent software vendors)

Improved scalability and performance

With Lotus Domino 7, you can typically support more users with fewer server and network resources. Performance metrics from the IBM development lab and statistics from the Lotus Domino 7 beta program indicate that Lotus Domino 7 uses up to 25 percent fewer CPU resources than Lotus Domino 6.5, and that Lotus Domino 7 can support up to 80 percent more NotesBench[1] mail users on the same server hardware. By consolidating more users into the same hardware, you have the opportunity to reduce your total cost of ownership in both hardware costs per user and overall administration costs. For more information about performance, see the Lotus Domino 7 Performance white paper:

ftp://ftp.lotus.com/pub/lotusweb/product/domino/Domino_7_Performance_Paper.pdf

Another performance benefit of Lotus Domino 7 can result from enhanced support for LDAP. New features include LDAP server thread pooling and caching enhancements. Organizations can also realize considerable cost savings by efficiently managing network bandwidth utilization and storage requirements. The network compression and streaming replication capabilities of Lotus Domino 7, introduced in Lotus Domino 6, can help reduce the amount of data transmitted over the network. Use of native attachment compression and single copy templates, which allow applications to share common design elements, can help reduce redundant storage requirements.

Administration

Lotus Domino 7 includes powerful features that simplify management and configuration and provide centralized control over your entire collaboration infrastructure. By automating repetitive administration tasks and simplifying user management, you can save valuable time and focus on more critical tasks. Tools such as Domino domain monitoring and activity trends help your administrators keep your system running smoothly and help them identify problems and corrective actions more quickly. Improved client upgrade and installation tools can decrease deployment time and costs while enhanced security features and spam controls help you safeguard your environment and keep your productivity up. The Lotus Domino 7 enhancements listed later in this chapter can help reduce the time and costs typically associated with administration, systems management and software deployment, and configuration.

Availability

Server downtime costs companies money and hinders productivity. Lotus Domino 7 continues the legacy of providing a solid server infrastructure and enabling people to reliably access the tools and information they need to do their jobs effectively. Lotus Domino 7 offers new diagnostic tools and autonomic capabilities such as Lotus Domino domain monitoring to complement high availability features from previous releases of Lotus Domino server, such as advanced clustering, transaction logging, and server fault recovery.

6.3 What's new in Lotus Domino 7: Features and benefits

So what benefits can you expect to reap by deploying Domino 7? The following short list highlights what Domino 7 does for you:

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[1] For information about NotesBench, visit http://www.notesbench.org/.

- ► Provides flexibility by letting you deploy to a variety of hardware platforms and operating systems
- ► Offers the potential to support more users with fewer resources by delivering improved server performance and scalability
- ► Helps reduce the time and costs that are typically associated with deploying and managing software, through advanced administration features
- ► Improves room and resource reservation management with a completely redesigned room and resource manage tool, including a new, dedicated server task and support for clustering
- ► Reduces the impact of spam with new spam control features
- ► Leverages Web services and open standards to extend existing Lotus Domino applications to J2EE and Microsoft.NET environments (see Chapter 5, "IBM Lotus Domino Designer 7" on page 55)
- ► Offers the option to use IBM DB2 Universal Database software as a data store to consolidate Lotus Domino enterprise data

Do you want to know more? The rest of this chapter gives you everything you need to know about Lotus Domino 7.

6.3.1 Performance and scalability

Server performance and scalability are usually foremost on the minds of administrators. In this time of doing more with less, Lotus Domino 7 offers good news: Server scalability has been dramatically improved.

Lotus Domino 7 also provides enhanced performance in other ways. The tests results cited in this section are for a single Lotus Domino partition. Here are some of the key findings:

- ► Up to 50% to 80% improvement in both NotesBench Lotus Domino 6 Mail and Lotus Domino 6 Web Access scalability on most platforms (except in zSeries where many performance improvements were delivered in version 6.5)
- ► Up to 400% improvement in Intel Linux NotesBench Lotus Domino 6 Mail user scalability (in part due to exploitation of the Linux 2.6 kernel)
- ► Up to 25% reduction in Lotus Domino server CPU utilization for Lotus Notes Remote Procedure Call (NRPC) client access
- ► Up to 50% reduction in Lotus Domino server CPU utilization for Lotus Domino Web Access
- ► Up to 35% CPU utilization reduction experienced on IBM mail servers used in production

In addition, an internal API gathers CPU times for Lotus Domino domain monitoring (see "Lotus Domino domain monitoring" on page 74). CPU utility and performance statistics are also collected and analyzed by an improved process.

These Lotus Domino 7 features help make your job as administrator easier and can help make your users more productive. And the increased capacities and scalability could translate into a lighter infrastructure and less hardware, helping reduce both costs and overhead.

For information about scalability improvements as measured by NotesBench, visit:

http://www-128.ibm.com/developerworks/lotus/library/nd7-perform/

6.3.2 Server administration, monitoring, and troubleshooting

Development of Lotus Domino 7 administration was driven by these high-level goals:

► Reduce Lotus Notes client deployment and support costs
► Limit time spent troubleshooting
► Improve e-mail management
► Allow Lotus Domino administration on Linux

All of these relate to the overall goal of continuing to lower the TCO of Lotus Notes and Domino.

Numerous improvements have been made in the area of server administration, including monitoring and troubleshooting. The major theme is increasing server reliability and availability while decreasing the administrative burden. Areas of improvement include server monitoring and fault analysis, installation, event handling, and support for server administration on Linux, all of which are designed to help you keep your environment healthy and your users productive.

Inevitably, however, problems arise. In 2003, IBM surveyed Lotus Domino administrators, and you told us that having ways to identify and resolve those problems quickly was your primary concern. You spoke; IBM listened. Decreasing the time spent troubleshooting was a major design goal for Lotus Domino 7. IBM added the new tools and enhancements listed in "Server administration improvements" on page 72to Lotus Domino 7 to allow you to keep your environment healthy, to let you know when there are problems, and to help you resolve problems as quickly and easily as possible.

Table 6-1   Server administration improvements

Feature	Description	Benefit
Lotus Domino domain monitoring	A set of monitoring tools for the Lotus Domino 7 uses probes designed to report on the status of server functions. The toolset includes: ► Enhanced monitoring of tasks and processes ► Assistance in problem determination ► Guidance in determining autonomic corrective actions ► Consolidation of problems with the same root cause ► The ability to prioritize problems ► The ability to assign problems to appropriate resources for correction	Lotus Domino domain monitoring provides a comprehensive monitoring environment, designed to help you identify problems sooner and decrease the time to resolution, resulting in decreased server downtime. A more detailed description is provided in "Lotus Domino domain monitoring" on page 74, later in this chapter.

Feature	Description	Benefit
Activity trends	The activity trends feature charts statistics for a specified server or server group, collects statistics into meaningful views, and provides recommendations for balancing database workload across servers, based on specified resource goals. Activity trends also provides a workflow to assist you in implementing these recommendations.	This feature allows administrators to better understand workload on a given server, and more effectively distribute workload across the domain. A more detailed description is provided in "Activity trends" on page 77.
Web administration on Linux/Mozilla	Administrators can now use a Linux workstation to administer Lotus Domino Servers.	This enhancement eliminates the need for administrators to have a Microsoft Windows workstation to administer their server. Provides added deployment flexibility.
Multi-platform server installer	The InstallShield multi-platform server installer offers a new method for performing silent server installations and a new option for running an express setup.	This enhancement decreases server installation and upgrade administrative burden by providing some automation to the installation process.
Show Schedule - DDM command	The argument *-DDM* has been added to the Show Schedule server command. Show Schedule -DDM shows the Lotus Domino domain monitoring probes that are scheduled to run.	This addition provides an easy way for administrators to know what probes are active on a server and when the next set up for updated data is available.
Fault Analyzer task	Fault analyzer processes all new crashes as they are delivered to the Automatic Data Collection mail-in database and identifies recurrences of known problems.	This task provides information about what types of faults are happening, and allows the administrator to determine the frequency of repeat occurrences.
Server Monitoring tasks	► Shutdown Monitor terminates Lotus Domino on request; that is, the server does not hang while attempting to shut down. ► Process Monitor monitors the processes that should be running as part of the Lotus Domino server environment. ► Writing status bar history to a log file can assist you when troubleshooting problems.	These tasks help decrease server downtime, and assist with problem determination.

Feature	Description	Benefit
Administration scriptability	Three new notification methods have been included: ▶ The run program notification method now provides the option to pass event parameters. ▶ The new event handler notification method sends a console command to the server. ▶ The new event handler notification method sends a Java Controller command.	These methods offer administrators greater flexibility in configuring event notification.

Lotus Domino domain monitoring

Lotus Domino domain monitoring provides a single location in the Lotus Domino Administrator client that you can use to view the status of multiple servers in your environment. Configurable probes gather information across multiple servers, checking for issues involving the directory, SMTP, routing, replication, ACL, security, and agents.

Lotus Domino domain monitoring then consolidates and reports that information about specially designated collection servers in a Lotus Notes output database called the Domino Domain Monitor (DDM.NSF). From the Domino Domain Monitor database, you can select an event and view detailed information about it. You can then click **Probable Cause Possible Solution** to view information explaining the cause of the event and (in some cases) to access a link to the database from which you can correct the error.

Features of Lotus Domino domain monitoring include:

▶ Monitoring that you can schedule any time, 24/7

▶ Fast recognition and reporting of critical server and client issues

▶ Top-down, feature-oriented view of the domain status (from which you can selectively view detailed information)

▶ Automated problem determination and probable cause in multiple feature areas

▶ Autonomic corrective actions, allowing the Lotus Domino server to resolve some problems by itself, with no administrator intervention required

▶ Visual indicators that identify which problems remain unresolved and which have been addressed

▶ Configuration defaults for easier setup

▶ The option to combine data generated on one or more Lotus Domino domain monitoring-enabled servers into a single database on another server through collection hierarchies

Lotus Domino 7 comes with a default set of probe documents. These contain the probe name, a description of the probe, specifics on what the probe monitors, and scheduling information. You can use these probe documents with their default settings.

You can also create new probe documents that are tailored specifically for your environment to monitor feature areas, such as application code and operating system. You can schedule probes to run daily, weekly, during the first or last week of the month, or at almost any other time. You also specify the repeat interval for the probe.

The types of probes include:

► A database probe that ensures a database can be opened (optionally, the probe can check the database for unused space and user inactivity)

► A database probe that monitors key locations in the database software layer and generates events for errors (you can define a list of errors to be ignored)

► Directory probes that check the health of a number of directory-related tasks and processes, including the LDAP task, replication, indexing, NRPC, secondary LDAP search response times, and so on

► Mail probes that:
   – Verify local mail routing by sending a message to a known destination and verifying delivery
   – Notify you if the router cannot keep up with mail flow
   – Alert you if too much mail is pending to a particular destination or if mail to that destination is failing

► SMTP probes that:
   – Verify that mail can be delivered to an SMTP recipient via a Delivery Status Notification (DSN) report
   – Check the SMTP task by verifying the processes threads
   – Verify protocol requests

► Replication probes that check for replication errors and conditions (such as databases that are not replicating according to their schedules), for last successful replication, and for replication conflicts

► Security probes that can verify a database ACL against a predetermined configuration and that can check for inconsistencies in security configurations across multiple servers

► Agent probes that report total number of agents run, agent security errors, time-out errors, and other agent-related information

Lotus Domino domain monitoring components also include an administrative interface and Lotus Domino resource modules. The administration interface collects reported events, categorizes them according to type and severity, and offers possible root causes and corrective actions. Additionally, problems can be assigned to specific administrators to resolve, related problems can be correlated and consolidated, and actions taken by administrators can be recorded for future reference.

The information from agent probes can be provided to application developers and architects to help them identify poorly performing agents; developers can then profile the identified agent to determine what functions are causing a bottleneck (see 5.3.8, "Code profiling" on page 61).

Lotus Domino domain monitoring probes are configured by accessing Monitoring Configuration from the Lotus Domino Administrator as shown in Figure 6-1 on page 76.
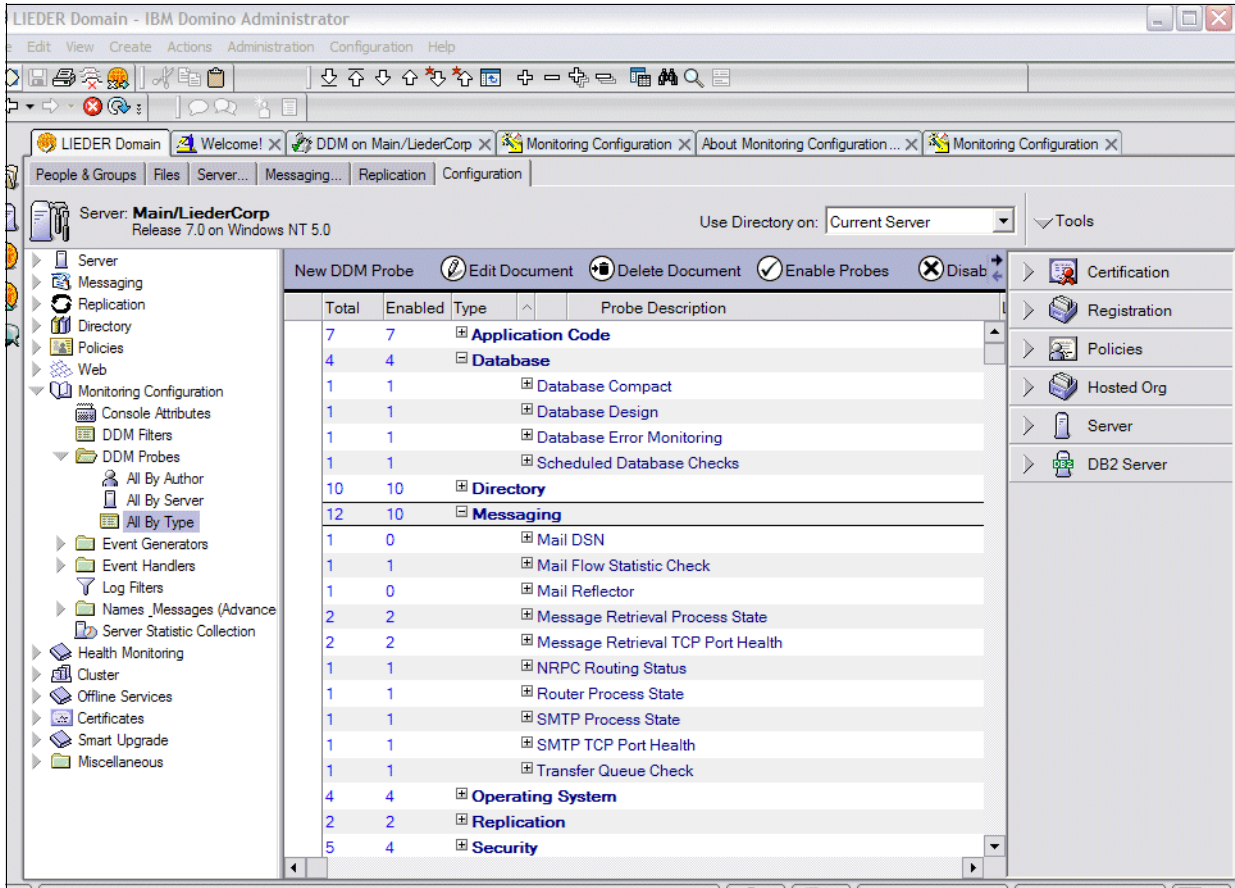
Figure 6-1   Configuring probes with the Lotus Domino Administrator client

Lotus Domino domain monitoring probes generate events in the Domino Domain Monitor database as shown in Figure 6-2.
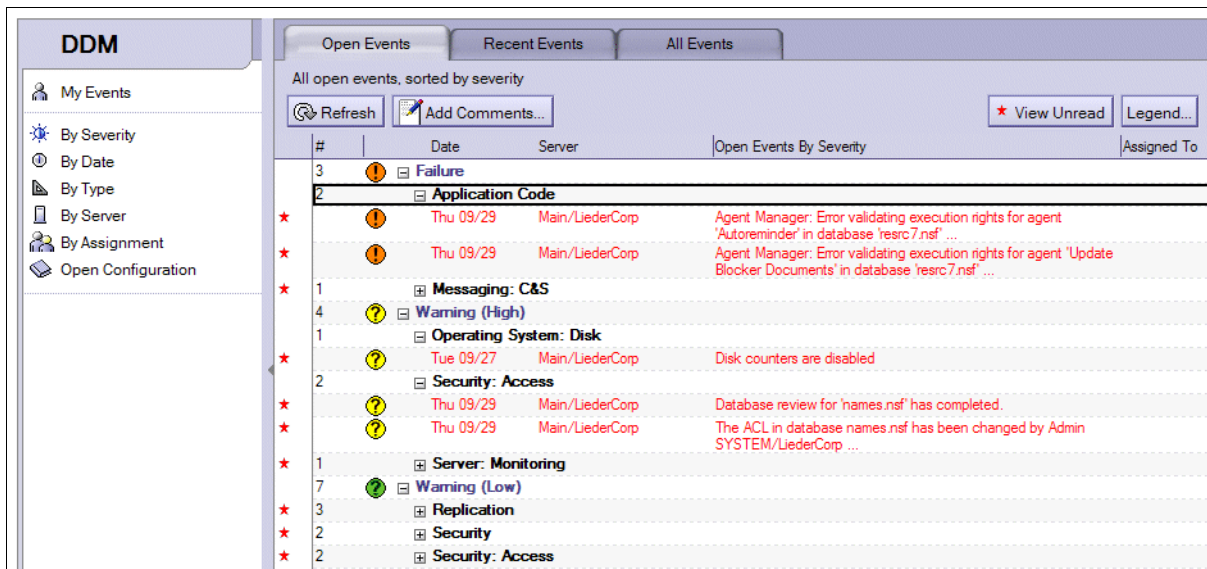
Figure 6-2   Viewing events in the Domino Domain Monitor database

This powerful new tool allows your administrators to gain a better perspective on issues in your entire domain, while providing the granularity to allow them to focus on a particular problem on a particular server.

For extensive details on see the IBM Redpaper *Lotus Domain Monitoring*, REDP-4089 at:

http://www.redbooks.ibm.com/redpieces/abstracts/redp4089.html

Activity trends

Lotus Domino server resource utilization can be separated into two types, system activity and user activity. System activity includes the level of processor, disk, memory, and network consumption that Lotus Domino generates to keep the server running. It is generally a fixed amount of activity, as long as systems are healthy and performing smoothly. Lotus Domino servers typically use a modest percentage of their resources to run. The remaining server capacity is used to support user activity, which varies with the usefulness of the data in the server. Understanding the workload in your servers can help you keep your environment running smoothly, by allowing you to better understand what your users and servers are doing, including identifying heavy users and heavily used databases.

Activity trends (Figure 6-4) is part of the Lotus Domino Administrator client. With activity logging, activity trends collects and stores activity statistics as current observations and historical trends. The activity statistics relate to the server, databases, users, and connections of users to databases (see Figure 6-4 on page 78). You can explore the collected data to see how database workload is distributed across servers.

Figure 6-3   Activity trends
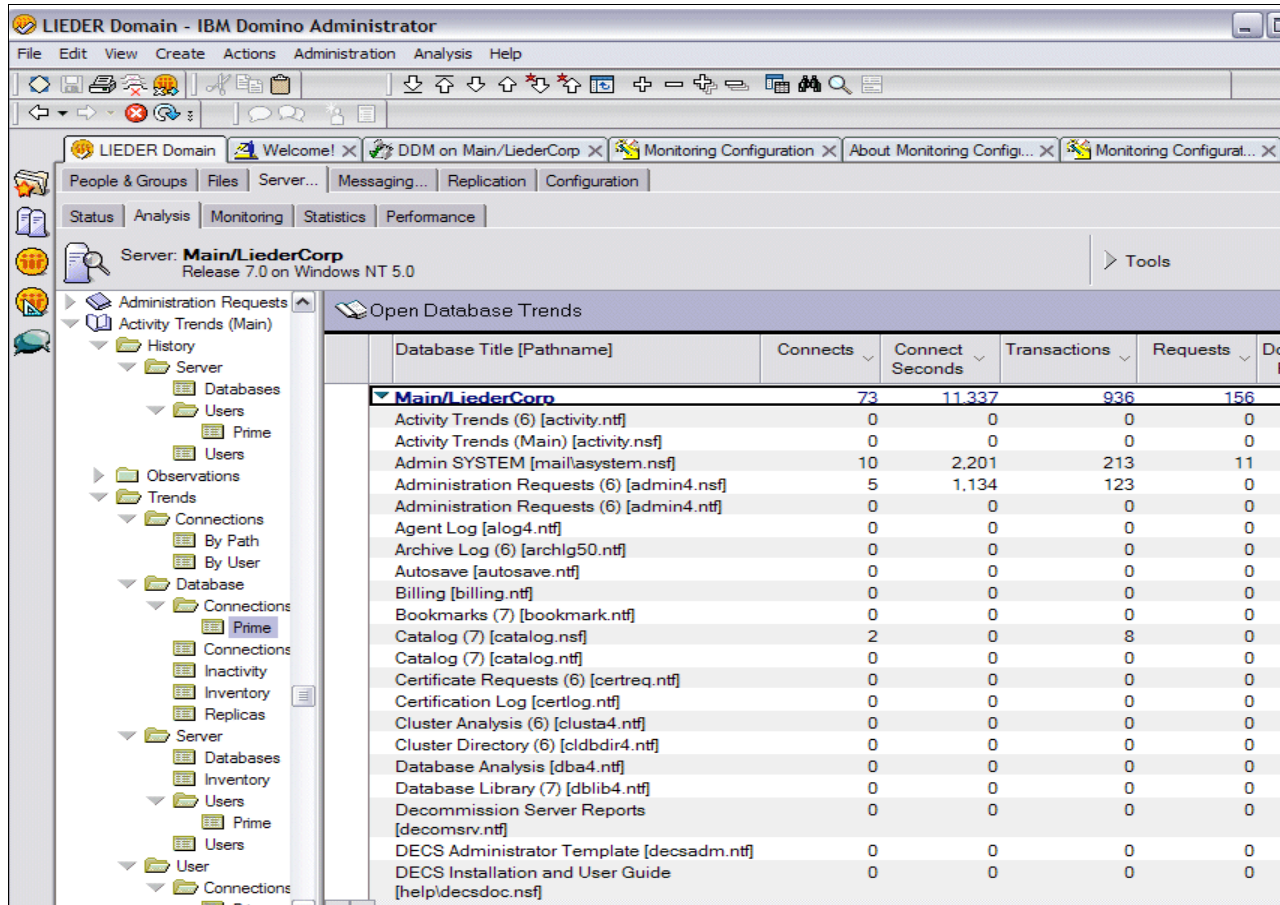
Figure 6-4   Viewing database trends in the Lotus Domino Administrator client

For example, if identically-configured mail servers with the same number of users have different performance characteristics, activity trends could identify heavy users. Using the data, activity trends recommends a resource-balancing plan. Then, working with Domino Change Manager, which is a part of the Lotus Domino server, activity trends provides a workflow that facilitates implementing the recommended changes.

Lotus Domino uses the collected data to determine the load on the server. Then, using resource-balancing functionality, the analyzer applies trends analysis and statistics to intelligent algorithms that can provide computer-aided load balancing on a set of servers or simplify the server decommissioning process. This powerful tool offers administrators a much more accurate picture of actual workload on servers (Figure 6-4 on page 78) and provides a plan for balancing that load intelligently, which can help optimize workload on every server in your domain.
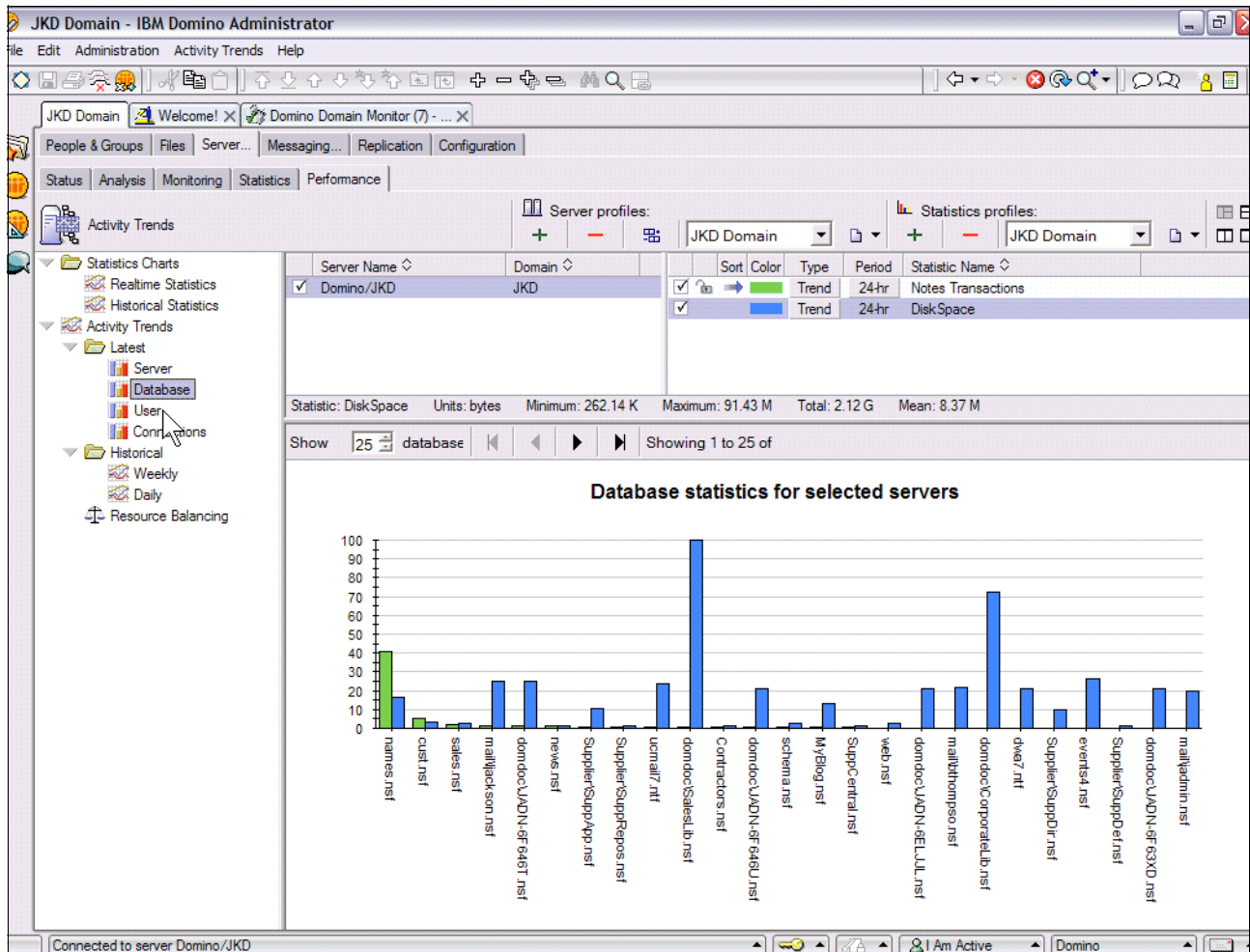
Figure 6-5   Chart showing statistics from activity trends

The chart illustrated in Figure 6-5 clearly indicates which databases are the most active.

6.3.3 User administration

To support administrators in their daily tasks of user administration, a number of powerful enhancements are included in Lotus Domino 7. There are new usability enhancements to aid administrators, and there are a number of new policy options. Policy-based management was introduced in Lotus Domino 6, and Lotus Domino 7 extends this functionality further by offering a new mail policy document. With it, you can define a set of corporate settings that you want to apply to your mail users.

In addition, a new client policy lock down feature lets you specify which policy settings your users can modify. You can now create custom password policies, which provide you with even greater control over your user environment, allowing you to construct a password policy in line with your own corporate security guidelines. And you can set client Notes.ini parameters and location documents with policies, giving you granular control of workstation settings.

Table 6-2 on page 80 lists the user administration enhancements available in Lotus Domino 7.

Table 6-2   User administration

Feature	Description	Benefit
New client policy lock down feature	Use policy lock-down to specify which policy settings can be modified by end users. The lock-down feature provides a central location from which you can set and optionally lock down user settings. Client policy lock-down is especially useful for implementing company policies, including enhanced security. See Figure 6-6 on page 81.	This feature allows administrators to specify preferences and settings that can only be changed by the administrator, not by the end user. Provides greater control and a means to achieve compliance with organizational policies.
Notes.ini parameters and location document settings can be set with policies	You can use a desktop policy settings document to add or set NOTES.INI variables for Lotus Notes client users. This is an easy way to assign NOTES.INI variables to all Lotus Notes client users, or to a specific subset of Lotus Notes client users, at one time. You can also use desktop policy settings documents to set field values in location documents for users.	This enhancement allows administrators to quickly and uniformly set Notes.ini parameters and Location document settings, without requiring any user intervention to set or accept settings.
New mail policy settings document	Mail policies provide a mechanism for setting and enforcing client settings and preferences for mail and calendar and scheduling. Mail policies can be used to manage and distribute message disclaimers, in particular, to push the correct disclaimer for a given mail user down to the client.	This powerful feature allows administrators to set and deploy uniform settings to particular user communities, targeting specific settings, such as disclaimers, to specific populations, and allowing you to have multiple policies to meet the needs of different parts of your organization, and providing a way to implement standardization.
Ability to create custom password policies	Administrator can set several options on password policy. See Figure 6-7 on page 82.	This feature allows administrators to require passwords that align with organizational password guidelines.
New desktop policy settings for instant message setup in the Lotus Notes application plug-in	Use the Lotus Domino policies feature to designate how instant message services, in the Lotus Notes application plug-in, are provided to your users. The Lotus Notes application plug-in for the Workplace Managed Client lets Lotus Notes users work with Lotus Notes applications in the Workplace rich client just as they would in the Lotus Notes 7 client.	These settings provide administrators with greater ability to set preferences and settings in an organized manner, setting preferences that meet the needs of each individual user population and providing a way to implement standardization.

Feature	Description	Benefit
Rename reversion approval	With the addition of the new approval process, an administrator can now approve or reject a name change reversion.	This process allows the administrator to control whether or not a name change is reverted if it is not accepted within a specified period, preventing users from being locked out if a name change happens while a user is out or cannot accept the change for some reason.
New Open Mail File button available in Person Document and People view	Open Mail File button accessible from an open Person document and from the People view of the Lotus Domino Administrator. Use the new Open Mail File button to open the selected user's mail file.	Quicker, more intuitive access to user mail files is available to your administrators.

From the Mail Preferences tab of the Mail Settings document (Figure 6-6), you specify settings for each user preference. Additionally, you can indicate whether the setting is changed initially, always, or not at all, and you can lock down the settings, by selecting or clearing **Allow user to change box** in the document.

Figure 6-6   Mail Settings document showing client policy lock down
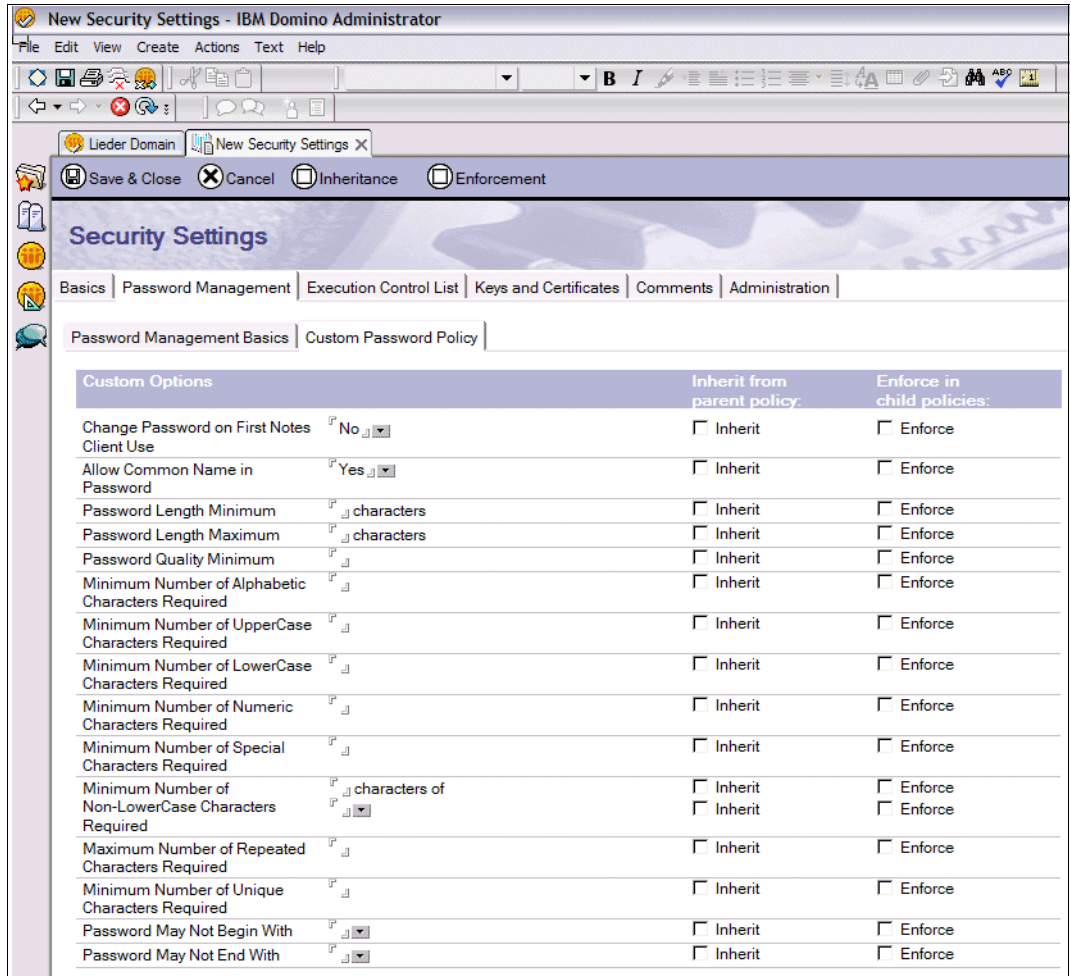
Figure 6-7   Setting up a custom password policy

6.3.4 Client upgrade and installation

Managing desktop software installation and deployment can place a heavy burden on your administrators. To decrease the amount of administrator intervention required, Smart Upgrade was introduced in Lotus Notes and Domino 6, and it has been improved for Lotus Domino 7.

Other new installation capabilities have been added to aid in software distribution. These are listed in Table 6-3.

Table 6-3   Client upgrade and installation

Feature	Description	Benefit
New custom client installation options using transform files	Custom client installations have been expanded to include information about using transform files during scriptable setups and also includes new examples of how to use transform files.	These options provide administrators with the ability to centrally manage client installation when specific installation or configuration options are desired.

Feature	Description	Benefit
Multiple Lotus Notes client users can use the same data directory at the same time	Multiple Lotus Notes client users can log on and use the same data directory at the same time. Note: When **AutoSave** is enabled, Lotus Domino creates an AutoSave database with a unique name for each user to make the data directory available to multiple users.	Support for multi-user installations is more easily managed and all users on a multi-user workstation can securely use AutoSave where it is available. For more information, see Section 2.3.4, "Desktop" on page 26.
New Smart Upgrade fields added to the desktop policy settings document	The desktop policy settings document now has a Smart Upgrade tab that contains the Smart Upgrade settings. Fields are now available to enforce Smart Upgrade tracking. See Figure 6-8 on page 85	This feature provides administrators with centralized control of Smart Upgrade process. For more detailed information about the Smart Upgrade process in Lotus Domino 7, see "More about Smart Upgrade" on page 84
Smart Upgrade kit recognition	Smart Upgrade can determine whether to install a *Lotus Notes client only* kit or *All clients* kit for each particular user.	The processes of determining which installation kit to use are automated, requiring less administrator intervention.
Smart Upgrade failover from Shared drive path kit to Attachment kit.	The Smart Upgrade process checks whether a *Full path kit* is available. If the Full path kit is available, it is used; if it is not available, the attachment kit is used.	This failover feature allows the upgrade to complete even if primary upgrade source is not available.
Smart Upgrade Tracking reports	The Smart Upgrade Tracking Reports database is a repository for storing Smart Upgrade Tracking reports that contain detailed information about the status of the attempts to run Smart Upgrade on Lotus Notes clients in your domain.	Administrators can access valuable information about the deployment speed and success rate of upgrades.
Smart Upgrade server cluster failover to another server	When the Lotus Notes client user logs on, the Configuration Settings document for the home server of the user is checked to access the link to the Smart Upgrade database. If the server with the Smart Upgrade database is not available, Smart Upgrade searches, by database replica ID and database name, for a replica server in the Smart Upgrade server cluster and tries to open the database on a replica server. If it is successful, the Smart Upgrade database on that replica server is used.	This feature allows the upgrade to complete even if primary upgrade server is not available.

Feature	Description	Benefit
New server command: `sucache refresh`	This command forces a dynamic reloading of the Smart Upgrade configuration information, displays the state of the Lotus Domino server's Smart Upgrade cache information, and displays Smart Upgrade statistics gathered when the Lotus Domino server was restarted.	Administrators can use the statistics to address possible problems encountered during upgrade.
New server command: `sucache show`	This command displays the current state of Smart Upgrade cache for the Lotus Domino server and some statistics gathered since the Lotus Domino server was restarted.	This command provides administrators with the status of Smart Upgrade.

More about Smart Upgrade

Smart Upgrade notifies users that it is time to update their Lotus Notes client software and allows them to start the update process from the Notification dialog. Smart Upgrade works with any client running Lotus Notes 6.0 or higher and uses policy and settings documents to help manage updates. You create policy documents in the Lotus Domino Directory to distribute standard settings and configurations across groups, departments, or entire organizations.

Lotus Domino 7 includes a number of enhancements to Lotus Notes Smart Upgrade, including:

► Administrators are notified by a mail-in database of the Smart Upgrade status (success, failed, or delayed) by user/machine.

► In clustered environments, Smart Upgrade can switch to another member of the cluster if the first server is unavailable.

► The Smart Upgrade governor limits the number of downloads from a single server to avoid excessive server load.

► The Roaming User Upgrade prompt can be suppressed.

These enhancements to Smart Upgrade help make the upgrade process smoother. When your administrators can centrally manage and automate upgrade and installation, you decrease the need for desk side visits. For information about using Smart Upgrade when your users do not have administrator access, see Lotus Support Technote 1199690:

`http://www-1.ibm.com/support/docview.wss?uid=swg21199690`

Smart Upgrade settings are configured on the Desktop Settings document, shown in Figure 6-8 on page 85, which is then referenced by the Policy document. Note the upgrade deadline.

Figure 6-8   Configuring Smart Upgrade options in the Desktop Settings document

The policy document is then used to specify which desktop settings are used, as shown in figure Figure 6-9.

Figure 6-9   Policy document specifying mail and desktop settings

Users to whom the Policy document is applied are prompted to upgrade by the Smart Upgrade notification, shown in Figure 6-10, when they next authenticate with their home server. Users can choose to update at that time or to delay the upgrade; the user can indicate how long to delay by selecting when they want to be reminded next from a menu. However, in the settings document, you can choose to prompt the user every hour if they delay the upgrade beyond the upgrade deadline.
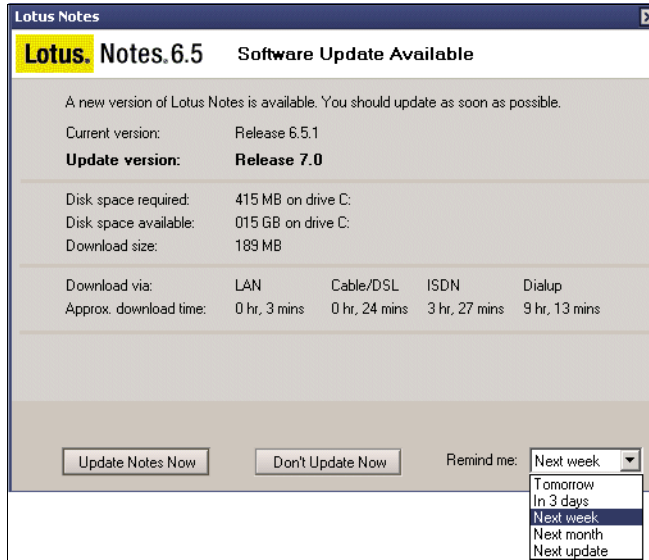
Figure 6-10   Smart Upgrade notification

If a user clicks **Don't Update Now** in the Smart Upgrade notification, they receive a confirmation message (Figure 6-11) which shows them how to access the update manually.
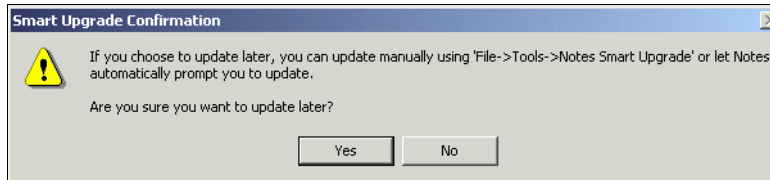

Figure 6-11   Smart Upgrade confirmation dialog

6.3.5 Messaging and spam

Lotus Domino 7 continues the never-ending battle against unsolicited junk e-mail. Lotus Domino 7 now features private black list and white list filters for SMTP connections and DNS white list filters for SMTP connections. Most spam filtering involves black lists, in which e-mail from addresses in the list are rejected or filtered. White lists do the reverse: They contain a list of addresses from which you expect to receive mail and filter messages received from other sources. You can implement white list filters both privately (in the client) and at the DNS level. Also, the Mail Rules feature has been expanded to allow users to select blacklists. The Server Mail Rule dialog now includes a BlackList option that allows you to select the blacklist you want to enforce.

Also, Lotus Domino 7 now features support for message disclaimers. These are short text notices appended to outbound Internet mail messages often used to protect a corporation's legal interests (for example, to inform the recipients of the message that the organization is not responsible for anything written by the message's author). You can also use disclaimers to inform the reader that the message is confidential and should not be shared with unauthorized individuals.

Lotus Domino 7 messaging and spam features are listed in Figure 6-4.

Table 6-4   Messaging and spam

Feature	Description	Benefit
DNS white list feature	Use DNS white list filters as a means to help identify legitimate e-mail. See Figure 6-12 on page 88.	This feature provides granular control of the problem of unwanted e-mail, by allowing you to use existing public black lists and a publicly maintained white list to specify hosts or domains that are exempted from black list checking, to ensure that legitimate e-mail is not filtered out by your blacklist settings.
Private black list feature	Use private black lists to specify hosts, domains, or both that are responsible for sending unnecessary, unwanted mail to your Internet domain. For consistency, Lotus Domino private black lists follow the model currently used by existing anti-spam functionality.	Administrators can add additional hosts or domains to filter out in addition to any existing public blacklist in use for SPAM control.
Private white list feature	Use Lotus Domino private white list filters to specify exceptions to blacklist filters, that is, to specify the hosts, domains, or both to exclude from black list processing. Hosts that are specified in private white lists are exempt from blacklist checks. White listed hosts bypass blacklist filter checks, but there are other controls that might prevent the message from being accepted.	This feature provides granular control of the problem of unwanted e-mail, by allowing you to use existing public black lists but also specify hosts or domains that are exempted from black list checking, to ensure that legitimate e-mail is not filtered out by your blacklist settings.
New message disclaimers	Message disclaimers are notices (usually short text blocks) that are added to e-mail messages. They are often used by organizations in an attempt to protect the organization's legal or other interests. Message disclaimers are enabled by a policy and can be enabled for the Lotus Notes client, for Lotus Domino server, or for both. The policy and disclaimer are pushed down to the client with the dynamic configuration.	Organizations can enable and manage disclaimers natively in Lotus Notes and Domino, with the flexibility of having the client, server, or both append the disclaimer text to outgoing messages.
New *stop processing* action for mail rules	This action stops the processing of all rules that follow the rule with the stop processing action. You can use the stop processing action alone (that is, as the only action in a mail rule) or you can use it with another action in a rule. It can also be in one rule that is in a series of rules.	This action provides more granular control of rules processing.

Black list and white list functions are configured as shown in Figure 6-12.

Figure 6-12   Configuration of white list and black list server mail rules

Disclaimer text is specified in the Mail Settings document (Figure 6-13) which is then specified in the Policy document (see Figure 6-9 on page 85).

Figure 6-13   Message disclaimer in mail settings document

Enabling the router to append disclaimers in the Configuration document is illustrated in Figure 6-14.

Figure 6-14   Message disclaimer settings in the server Configuration Settings document

For more information about black lists, white lists, and message disclaimers in Lotus Domino 7, refer to Lotus Domino 7 Administrator Help at:

`http://www-12.lotus.com/ldd/doc/domino_notes/7.0/help7_admin.nsf/`

6.3.6 Room and resource scheduling

The main goals in the development of rooms and resources in Lotus Domino 7 were:

► Improve usability
► Improve reliability, including support for clustering the rooms and resources database

Lotus Domino 7 achieves these goals by introducing a new server task to handle rooms and resources-related requests, updating the design of the rooms and resources database to provide more usable information and presence awareness, and adding support for clustering. Best of all, your users can get all the benefits of the new design using their current version of Lotus Notes, because the new rooms and resources system is designed to be independent of the Lotus Notes client version. In previous releases, these requests were handled by other server tasks that were not dedicated to room and resource scheduling.

The redesign of the Rooms and Resources system in Domino 7 brings the significant enhancements listed in Table 6-5, which provide improved usability and better reliability.

Table 6-5   Room and resource scheduling

Feature	Description	Benefit
Rooms and Resources Manager task (RnRMgr)	New Rooms and Resources Manager task helps prevent overbooking of rooms and resources. It is now available directly to users for scheduling rooms and resources.	This feature centralizes the processing of rooms and resources-related requests, improving the overall performance of Lotus Domino 7.
Ability to Transfer Rooms	In the event a room needs to be changed, you can now execute a transfer to another individual.	A user who has scheduled a conference room can transfer the scheduled time slot to another person's control. This is particularly helpful when two users have meetings scheduled at the same time, but need to swap rooms, due to size or resource requirements.
Resource reservations automatic reminder feature	You can now specify whether reminders should be automatically sent to meeting chairs. Administrators can also specify the number of days in advance of the reservation that the reminder should be sent.	This feature reminds users of upcoming resource reservations.
Resource reservations limit future reservations feature	Administrators can limit how far in advance future reservations can be created.	Administrators gain more control over the resources, better enabling them to satisfy more users.
Resource reservations restricted resource feature	Owner restrictions determine how reservation requests for a particular resource are processed.	You can match your rooms and resources configuration with the way you allocate conference rooms and other communal resources, allowing you to put special-purpose rooms and resources into the pool without giving everyone free access to their use.
Resource Reservations database is Sametime-enabled	This feature provides presence awareness, at the view level, of database users if Sametime is installed.	This feature allows room and resource administrators to easily contact users about reservations or resources.

Feature	Description	Benefit
Request status icons	Visual indicators show the status of a reservation request.	Users can easily determine the status of reservation requests.

More on rooms and resources

The new design for rooms and resources centralizes all the reservation request processing and related activities. The Rooms and Resource Manager (RnRMgr) handles all processing of room and resource-related actions in Lotus Domino 7. This improves both the performance and usability of the rooms and resources functionality in Lotus Domino 7.

Also, the new features added to the rooms and resources database in Lotus Domino 7 make the rooms and resources database much more powerful and easier to use.

Finally, Lotus Domino 7 was designed to allow RnRMgr to actively use Lotus Domino clusters to perform application failover of rooms and resources request processing. Now, users can continue to book their conference rooms in the event of a server failover, without interruption. Best of all, with the new system, there is no possibility of conflicting requests being accepted, which prevents double-booking.

For more information about Rooms and Resources in Lotus Domino 7, refer to Lotus Domino Administrator 7 Help, at:

http://www-12.lotus.com/ldd/doc/domino_notes/7.0/help7_admin.nsf/

6.3.7 Security features

The Lotus Domino security model is based on the premise of protecting resources, such as the Lotus Domino server itself, databases, workstation data, and documents. The resources, or objects, that are being protected are set up to define the rights of users to access and change the objects. Information about access rights and privileges are stored with each protected resource. Thus, a given user or server can have different sets of access rights, depending on the resources to which that user or server requires access. This section presents a brief overview of security mechanisms in Lotus Domino.

Server security

Lotus Domino 7 is a critical resource to secure. It is the first level of security that Lotus Domino enforces after a user or server gains access to the server in the network. You can specify which users and servers have access to the server and restrict activities on the server; for example, you can restrict who can create new replicas and run agents.

You can also restrict and define administrator access by delegating access based on the administrator duties and tasks. For example, you can enable access to operating system commands through the server console for system administrators and grant database access to those administrators who are responsible for maintaining Lotus Domino databases.

If you set up servers for Internet and intranet access, it is a good practice to set up SSL and name-and-password authentication to secure data transmitted through the network and to authenticate servers and clients.

ID security

A Lotus Notes or Domino ID uniquely identifies a user or server. Lotus Domino 7 uses the information from IDs to control the access that users and servers have to other servers and applications. One of the responsibilities of the administrator is to protect IDs and make sure that unauthorized users do not use them to gain access to the Lotus Domino 7 environment.

Some sites might require multiple administrators to enter passwords before gaining access to a certifier or server ID file. This prevents one person from controlling an ID. In such cases, each administrator should ensure that each password is secure to prevent unauthorized access to the ID file.

Application security

Once users and servers gain access to a Lotus Domino server, you can use the database ACL to restrict access that specific users and servers have to individual Lotus Domino applications on the server. In addition, to provide data privacy, you can take the following steps:

► Encrypt the database with an ID so that unauthorized users cannot access a locally stored copy of the database

► Sign or encrypt mail messages users send and receive

► Sign the database or template to protect workstations from formulas.

Encryption

For all types of encryption, Lotus Domino 7 uses public and private keys so that data encrypted by one of the keys can be decrypted only by the other. The public and private keys are mathematically related and uniquely identify the user. Both are stored in the ID file. The public key is stored in a certificate, but the private key is stored separately from the certificate. The certificate with the public key is also stored in the Lotus Domino Directory, where it is available to other users.

Lotus Domino 7 uses two types of public and private keys: Lotus Notes and Internet. You use the Lotus Notes public key to encrypt fields, documents, databases, and messages sent to other Lotus Notes users, while the Notes private key is used for decryption. Similarly, you use the Internet public key for S/MIME encryption and the Internet private key for S/MIME decryption. For both Lotus Notes and Internet key pairs, electronic signatures are created with private keys and verified with public keys. You can use one set of Internet public and private keys or you can set up Lotus Notes to use a set of Internet keys for S/MIME signatures and SSL and another set for S/MIME encryption.

When you register a user, Lotus Domino 7 automatically creates a Lotus Notes certificate, which contains the user's public keys, and adds it to the ID file and the Lotus Domino Directory. The private key is created and stored in the ID file. You can also create Internet public and private keys after user registration. Lotus Domino 7 stores Internet certificates, which contain public keys, in the ID file and also in the Lotus Domino Directory. The Internet private key is stored in the ID file, separately from the certificate.

To create Lotus Notes public and private keys, Lotus Domino 7 uses the dual-key RSA Cryptosystem and the RC2 and RC4 algorithms for encryption. To create the Internet public key, Lotus Domino 7 uses the x.509 certificate format, which is an industry standard that many applications understand. Both the Lotus Notes client and Lotus Domino server support 1024-bit RSA key and 128-bit symmetric key for S/MIME and SSL. The Lotus Notes proprietary protocols support the use of 630-bit and 1024-bit keys for key exchange, and use 64-bit and 128-bit keys for bulk data encryption.

Although Lotus Domino servers have always included robust security features, some additional features have been added to Lotus Domino 7; they are listed in Table 6-6 on page 92.

Table 6-6   Security enhancements

Feature	Description	Benefit
128-bit encryption RC2	Lotus Domino 7 supports larger Lotus Notes document encryption key sizes than in previous versions, and users have the option of using a stronger key to encrypt them.	This feature offers more secure encryption of documents when symmetric keys are used.
1024-bit RSA encryption keys	Lotus Domino 7 supports larger Lotus Notes document encryption key sizes than in previous versions, and users have the option of using a stronger key to encrypt them.	This feature offers more secure encryption of documents when asymmetric keys are used.
Specify key size during registration	Administrators can now specify the key size during registration.	Administrators have the ability to easily use larger keys.
Custom password policies	Allows administrators to customize password rules to comply with Corporate IT security guidelines. See Figure 6-7 on page 82.	Administrators have the ability to implement organizational security guidelines more easily and effectively.
User name mapping in the SSO LTPA token	When enabled, Lotus Domino looks for a configured name to put into an LTPA cookie.	This feature provides enhanced support for single sign-on, improving user experience.
User key rollover	Administrators can enforce creation of new key pairs for existing users via policy, either based on key age or key size.	The Lotus Notes 7 client automatically generates a new key pair and submits it for certification.
Server key rollover	Administrators can now configure key rollover for servers with settings in the server document.	This replaces the tedious manual process of copying the ID file to a Lotus Notes client, requesting a new set of keys, then copying the recertified ID file back to the server.

6.3.8 DB2 support

With Lotus Domino 7, you have the option to use IBM DB2 Universal Database software as an alternative data store for Lotus NSF on a per-server and per-database basis. This feature enables organizations to consolidate their Lotus Domino data in a common DB2 store and then integrate it with other applications, such as IBM Workplace applications.

The DB2 software integration capabilities of Lotus Domino 7 also enable developers to use SQL to blend collaborative services with relational data stored in DB2 databases. Lotus Domino Designer 7, when used in conjunction with the Lotus Domino 7 and DB2 feature, provides:

► The ability to expose Lotus Domino data in a relational format in a DB2 database using DB2 access views, and work with that data using SQL

► A powerful new kind of view, called a query view, that uses SQL to report or join data from DB2-enabled Lotus Notes databases, DB2 applications, or both

Table 6-7 on page 93 lists the DB2 support features available with Lotus Domino 7.

Table 6-7   DB2 Support

Feature	Description	Benefit
Lotus Domino and DB2 on Microsoft Windows systems and IBM AIX systems	Lotus Domino 7 can be optionally configured to store Lotus Notes databases in IBM DB2 databases as well as in traditional .NSF files. In both cases, users access and view their data using the Notes client. Where the data is stored is not visible to the user.	Administrators have the flexibility to choose the most appropriate data store on a database by database basis.
DB2 server commands	Lotus Domino server console commands for use with Lotus Domino 7 and DB2 provide you with information about your Lotus Domino 7 and DB2 configuration.	These commands provide administrators with easy access to information about current Lotus Domino with DB2 configuration.

More on DB2 support

Setting up DB2 access views in Lotus Domino Designer 7 makes Lotus Domino data available to DB2 applications and also allows DB2 applications to modify Lotus Domino 7 data. For more information about DB2 support in Lotus Domino Designer, see 5.3.7, "DB2 support" on page 60.

DB2 does not replace NSF, but simply provides an alternative data store. Most Lotus Notes databases and Lotus Domino Web applications can be stored in DB2, since the Lotus Notes API is independent of the data store. However, there are some functional exceptions. For example, query views are currently not supported for previous versions of the Lotus Notes client, and DB2 query views are not currently supported from Web browsers.

In some very specific cases, using a DB2 data store can improve performance, but not all applications benefit from the use of DB2. Some applications with a large data set might be better suited to a DB2 storage model, but other applications might run better as high performance, NSF-based applications. For example, applications that need to run offline in Lotus Notes, and therefore cannot access the DB2 data store, should be kept in NSF format, not converted to a DB2 data store.

To leverage DB2 in your Lotus Domino 7 environment, your administrators need to know how to deploy and manage DB2 servers, and your application developers need SQL skills to build applications with query views. Additionally, you need:

► Lotus Domino 7 or higher, running on Microsoft Windows 2000 or 2003 server or AIX 5.2 or 5.3

► A licensed copy of DB2 Universal Database 8.2.2 running on Microsoft Windows or IBM AIX (DB2 can be installed on a Lotus Domino server, or on a separate network server)

At the time of this writing, Lotus Notes and Domino Extended Products, such as Lotus Sametime, Lotus QuickPlace, and Lotus Domino Document Manager, do not support the use of the DB2 data store.

For the current information about DB2 support in Lotus Domino 7, visit:

http://www.lotus.com/products/product4.nsf/wdocs/nsfdb2

6.4 Lotus Domino 7 supported platforms

The platforms that are supported by Lotus Domino 7 are listed in the sections that follow.

6.4.1 Microsoft Windows

The supported Microsoft Windows platforms are:

- ► Windows 2000 Server and Advanced Server
- ► Windows 2003 Standard and Enterprise Server

6.4.2 UNIX

The supported UNIX platforms are:

- ► IBM AIX 5.2 and 5.3
- ► Sun Solaris 9 and 10

6.4.3 iSeries

The supported IBM @server iSeries platform is IBM i5/OS V5R3.

6.4.4 Linux

The supported Linux platforms are:

- ► SLES 8 and 9
- ► SLES 8 and 9 on zSeries
- ► Red Hat Enterprise Linux 4 for both Intel x86 and zSeries

6.4.5 zSeries

The supported zSeries platform is IBM z/OS Version 1, Release 5 and above.

Please see the Release notes for patch and service pack requirements:

http://www-12.lotus.com/ldd/doc/domino_notes/7.0/readme.nsf

7

IBM Lotus Notes and Domino extended products

This chapter provides an overview of the extended products for Lotus Notes and Domino 7, including:

- ▶ IBM Lotus Enterprise Integrator
- ▶ IBM Lotus Sametime
- ▶ IBM Lotus QuickPlace
- ▶ IBM Lotus Domino Document Manager
- ▶ IBM Lotus Workflow

7.1 Overview of Lotus extended products

The IBM Lotus Notes and Domino 7 extended products portfolio provides a variety of offerings and integration points for increased productivity beyond just simple e-mail. Each product in the portfolio is designed to enrich one or more aspects of the user's ability to communicate and collaborate, from simple UI enhancements to more fundamental improvements.

For example, Lotus Sametime 7, the IBM industry leading instant message and Web conference product, provides tighter integration with all of our clients. IBM has also made some significant UI improvements in Lotus QuickPlace, while Lotus Domino Document Manager continues to provide the enterprise users with low cost library services that are easy to deploy.

7.2 Lotus Enterprise Integrator 7

A member of the IBM Workplace family, Lotus Enterprise Integrator 7 helps maintain and enhance productivity by allowing organizations to leverage data and business logic from systems that are external to Lotus Domino.

7.2.1 Overview

Lotus Enterprise Integrator 7 is a server-based data access tool that provides enterprise-strength, real-time data access, data transfer, and synchronization between Lotus Domino and external systems. Using a simple, point-and-click interface, you can create, manage, and schedule batch and real-time access that provides integration with relational systems such as DB2 Universal Database, Oracle, Sybase, SAP, and more.

What's new: Features and benefits

Lotus Enterprise Integrator 7 offers the following benefits:

► Enables the rapid creation of integrated business-process solutions that can help increase employee productivity

► Lets users access and view corporate data in Lotus Domino 7 no matter where the data is stored

► Reduces the need for programming with simple, point-and-click development

► Unifies corporate and Lotus Domino technology-based data in one application to leverage your current application investments

► Lets users access business process automation solutions with familiar Lotus Notes or Web browser interfaces.

New features in Version 7 include enhanced administration and troubleshooting tools; these features allow more granular data management for enterprise integration activities. The enhancements to Lotus Enterprise Integrator 7 include:

► Failover support leverages the proven cluster replication technology of Lotus Domino software.

► Error handling at both design and run time is improved with commonly used Lotus Domino troubleshooting tools.

► Logging and remote debugging of scripted activities and external system connections is offered.

- Dependent activities can be used for more granular control (for example, you can define which of two dependent activities is run, based on the success or failure of the activity).

- Data management activities that use Lotus Notes connections can run under different Lotus Notes IDs and can help provide an audit trail, allowing you to leverage Lotus Domino security features by defining varying levels of access for different applications.

- The Virtual Documents activity allows you to choose when external system events that create, update, or delete the document are synchronized, helping to ensure that data is up to date when accessed using Lotus Domino applications.

- The user interface incorporates presence awareness.

- Connection testing can now be done from a form, saving steps by eliminating the need to change to a command line

- Lotus Enterprise Integrator 7 adds support for Version 5.0 of DataDirect OBDC drive.

For more information about Lotus Enterprise Integrator 7, visit:

http://www.lotus.com/lei

7.2.2 Supported platforms

Lotus Enterprise Integrator 7 requires Lotus Notes and Domino 7.

Windows
The supported Windows platforms are:

- Windows 2000 Server and Advanced Server
- Windows 2003 Server and Server Enterprise Edition

UNIX
The supported UNIX platforms are:

- AIX 5.2 and 5.3
- Sun Solaris 9
- Red Hat Enterprise Linux (RHEL) 2.1 and 3.0
- Novell SUSE LINUX Enterprise Server (SLES) 1.0

iSeries
The supported iSeries platform is IBM i5/OS V5R3

For more information about system, patch, and service pack requirements, see:

http://www-12.lotus.com/ldd/doc/uafiles.nsf/docs/lei70/$File/LEI70readme.txt

7.3 Lotus Sametime 7

Lotus Sametime is the market-leading IBM product and platform for real-time collaboration. It is based on three key concepts:

- Presence awareness: See, in advance, whether a person or application is available to collaborate, share information, take an action, or any combination of these.

- Instant messages: Be able to converse virtually through the exchange text-based information in real time.

- Web conferences: Share information, an application, or an entire desktop or engage in team white boarding.

These collaboration capabilities present you with virtually unlimited possibilities. In fact, over 15 000 000 people worldwide use Lotus Sametime capabilities every day to gain instant access to people and information, bring together geographically dispersed team members, and help improve individual and team productivity. Lotus Sametime also takes advantage of new audio integration capabilities from leading teleconferencing and telecommunications providers to offer a single, unified interface for both audio and Web conferences and click-to-call functionality directly from the Lotus Sametime Connect Client.

7.3.1 Overview

Lotus Sametime products provide real-time collaboration including presence awareness, instant messages, and Web conferences. This set of offerings is designed to meet the requirements of users, administrators, and developers, and it includes:

- ► Lotus Web Conferencing 7: Enable people to work together online, instantly from wherever they may be located using an intuitive meeting-room metaphor. Based on the market-leading product, Lotus Web Conferencing allows participants to view shared presentations, documents, and applications over the Web and document spontaneous ideas and interactions using the online whiteboard, in a security-rich environment.

- ► Lotus Sametime server 7: Manage the flow of instant messages, streaming audio and video, shared applications, and whiteboard sessions. The Lotus Sametime Connect Client, a PC-based workplace, allows users to exchange text-based messages and attachments, and schedule instant Web conferences.

- ► Lotus Sametime Enterprise Meeting Server is an optional add-on that supports high-volume Web conference environments and optimizes load balancing and failover for enterprise-class deployments.

The new features in Lotus Sametime 7 allow you to interact with and respond to colleagues, customers, business partners, and suppliers in real time.

7.3.2 What's new: Features and benefits

Lotus Sametime 7 includes the following new features:

- ► Enhanced browser and operating system support, including Apple Macintosh, Mozilla Firefox, and Linux
- ► Automated PC configuration testing to ease entry into Web conferences
- ► Optional integration of audio from leading teleconferencing and telecommunications providers, offering a single, unified interface to both audio and Web conferences and the ability to start a call directly from an instant message session
- ► Enhanced diagnostics and status information
- ► Deployment of Lotus Sametime and Lotus QuickPlace in the same server
- ► Enhancements in linking multiple Lotus Sametime servers for scalability and failover

The main benefits of upgrading to Lotus Sametime 7 are:

- ► Facilitation of fast and easy entry to Web conferences with test conference utility
- ► Opportunity for decreased TCO through possible hardware savings
- ► Opportunity to increase user productivity
- ► Opportunity to improve administration efficiency

Why upgrade to Lotus Sametime 7

With Lotus Sametime 7, you can:

- ► Virtually bring together centralized and geographically dispersed individuals and teams, providing the option to extend security-rich, real-time collaboration to virtually anyone/everyone in the extended value chain.
- ► Promote individual and team productivity, broadening communications choices beyond phone, e-mail, and in-person meetings.
- ► Enable faster, more informed decision-making by bringing people together, spontaneously or in a structured fashion.
- ► Improve general and customer-specific response times, ultimately accelerating time-to-market, all while providing competitive advantage.
- ► Address TCO by providing a set of real-time capabilities in a single product offering and by providing flexible integration with existing infrastructures and Web applications.
- ► Inject presence awareness and instant message functionality into other applications, including Web pages and Microsoft Windows applications.
- ► Reduce need for business travel, delivering fast and often measurable return on investment (ROI).

Why upgrade to Lotus Web Conferencing 7

The new features of Lotus Web Conferencing 7 allow you to interact with and respond to colleagues, customers, business partners and suppliers in real time. Because it is designed for on-premise deployment, Lotus Web Conferencing 7 can offer significant cost advantages while making it easy to extend the benefits of Web conferences across an organization.

Lotus Web Conferencing 7 provides an alternative for organizations that want to use Web conferences to control travel costs, improve sales, share information, or make faster decisions. Sharing the same technology as the market-leading IBM Web conference solution (Lotus Sametime), Lotus Web Conferencing 7 features new concurrent user pricing, making it easy to purchase just the number of licenses needed and also allowing external parties, such as customers, partners, and suppliers, to participate in Web conferences.

Lotus Web Conferencing 7 also takes advantage of audio integration capabilities that give participants unprecedented control over their meetings. Features, such as a visual indication of who is speaking and the ability to mute or adjust the volume of participants, can help minimize distractions and can improve the effectiveness of the Web conference.

The areas of improvement include:

- ► Audio integration capability: Integrate teleconferences into the meeting room, enabling participants to more effectively manage the meeting by allowing them to mute participants, raise and lower volume, or have the conference call them directly. These audio features, available from third-party provides and billed for separately, are directly integrated into leading VOIP, PBX, and audio conferencing systems.
- ► Security features: Authenticate users when they log in. Protect Web conferences with a password and limit access to only the individuals who receive invitations.
- ► Scalability: Enable hundreds of people to view the same presentation or Web application or to engage in a whiteboard session. Link multiple servers to increase scalability and reduce traffic across WANs.
- ► Encryption: Encrypt Web conference content and data to restrict meeting content to authorized viewers only.
- ► Directory support: Use existing directories, such as Lotus Domino or any Lightweight Directory Access Protocol (LDAP) directory, to control exactly who can access the environment. Create and manage each directory on the fly.

- ► Proxy support and firewalls: From the edge of the network, let external users access the server without compromising network security. HTTP tunneling on port 80 enables clients with restrictive firewalls, operating in corporate networks, to connect to the server over the Internet. Client-side support for proxies includes HTTP, HTTPS, SOCKS4 and SOCKS5.
- ► Server management: Use the browser-based interface to set up new users, administer security and access privileges, monitor activity levels and analyze usage trends.

Because it is designed for on-premise deployment, Lotus Web Conferencing 7 can offer significant cost advantages over Web conference services, while still making it easy to extend the benefits of Web conferences across an organization.

For more information about Lotus Sametime 7, visit:

http://www.lotus.com/sametime

7.3.3 Supported platforms

The platforms supported by Lotus Sametime 7 are discussed in this section.

Windows

The supported Microsoft Windows platforms are:

- ► Windows 2000 Server with Service Pack 4
- ► Windows Advanced Server with Service Pack 3 and Service Pack 4
- ► Windows 2003 Standard Edition
- ► Windows 2003 Advanced Edition

UNIX

The supported UNIX platforms are:

- ► AIX V5.2 and V5.3
- ► Sun Solaris operating environment, V9

IBM iSeries

The supported iSeries platform is i5/OS, V5R3.

Client operating systems

The supported client operating systems are:

- ► Windows XP Pro Service Pack 1
- ► Windows 2000 Pro Service Pack 4

Client browsers

The supported client browsers are:

- ► Internet Explorer 6.0 on Windows XP Pro and Windows 2000 Pro
- ► Mozilla 1.7.6 on REL 3.0, Novell Linux Desktop 9.0, Windows XP and Windows 2000 Pro
- ► Firefox 1.0.1 on Windows XP, Windows 2000 Pro, REL 3.0, and NLD 9.0

Client Java Development Kits/Java Runtime Environment

The supported client Java Development Kit (JDK)/Java Runtime Environment (JRE) are:

- ► JDK: 1.4.2
- ► JRE: 1.4.2
- ► Sun JRE 1.4.2, or later for Linux

Java Connect for Mac desktop only

The Java connection for Macintosh desktop only is JVM 1.4.2 (for Mac OSX 10.3.4 and 10.4.x).

Lotus Domino

The supported Lotus Domino platform is Lotus Domino 7.

LDAP

The supported LDAP platforms are:

- ► IDS 5.1, 5.2
- ► Lotus Domino V6.5
- ► Lotus Domino 7
- ► Microsoft Active Directory 2003, except i5/OS
- ► Sun ONE™ Directory 5 (iPlanet™ 5.1, 5.2), except i5/OS

For more information about system, patch and service pack requirements, see the release notes:

http://www-12.lotus.com/ldd/doc/uafiles.nsf/docs/ST70/$File/strn70.pdf

7.4 Lotus QuickPlace 7

Lotus QuickPlace 7 allows you to create Web-based team spaces to address a wide variety of coordination needs, from full-scale project management to ad-hoc discussion forums and team-oriented document management. Lotus QuickPlace can facilitate the successful completion of projects by allowing you to share documents, centrally manage tasks and team calendars, and stay connected with discussion forums and news alerts.

7.4.1 Overview

Lotus QuickPlace 7 offers a number of enhancements, for both end users and administrators, to make it easier and more cost-effective than ever to collaborate with colleagues, partners and customers, inside and outside of the firewall. Upgrade benefits include:

- ► Reduced user training with the room and folder UI

- ► More flexibility in selecting the supported operating system and browser best suited for user and organization's needs

- ► Attractive cost of ongoing administration and management

- ► Attractive cost of deployment

- ► Additional security features for simplified user experience

Lotus QuickPlace 7 continues to follow the goal of constant quality improvement, a path begun with Lotus QuickPlace 6.5.1, when the release schedules of Lotus QuickPlace and the other extended products were synchronized with Lotus Notes and Domino. The build process for QuickPlace has now been merged with core Lotus Domino build processes, which provides more reliable builds during the development process as well as faster feedback on applied fixes. Ultimately, this provides your users with a more stable and robust system.

Significant improvements have been made in several feature areas. Usability was significantly improved by introducing a folder navigation place type. This place type provides for a more familiar user experience, making user interaction with the folders more intuitive, including the ability to expand and collapse folders. The other components also look more like what a user

expects; the Calendar icon resembles a calendar page, and the Tasks icon looks like a clip board. This is also extended to the documents that are stored in Lotus QuickPlace. Microsoft Office documents now display icons indicating which Microsoft Office application was used to create the document.

Performance of the UI has been improved, including the open speed of the MyPlaces view. One of the strengths of Lotus QuickPlace is its ability to provide users with an offline experience, which has been improved by introducing synchronization between online and offline passwords. Encryption of the local offline data store has been added to enhance security. And now, Lotus QuickPlace supports the Safari browser for Macintosh and Firefox on both Linux and Microsoft Windows.

Administration improvements include support for Lotus Domino Native Authentication, and additional access levels to make the security model more closely resemble the Lotus Domino ACLs. It is now easier for administrators of offline users to install the necessary components to locked-down PCs.

Finally, to speed problem determination, NOTES.INI settings have been added to provide for better logging, as well as better text-logging for JavaScript agents. Error messages have been improved to provide better information and a debug template has been provided to help you drive to resolution faster with support.

For more information about Lotus Quickplace 7, visit Lotus QuickPlace home at:

http://www.lotus.com/quickplace

7.4.2 Supported platforms

The platforms supported by Lotus Quickplace 7 are discussed in this section.

Windows

The supported Microsoft Windows platforms are:

- ► Windows 2000 Server
- ► Windows 2000 Advanced Server

UNIX

The supported UNIX platforms are:

- ► AIX 5.2 and 5.3
- ► Sun Solaris 9

iSeries

The supported iSeries platform is IBM i5/OS V5R3.

For more information about system, patch, and service pack requirements, see the release notes:

http://www-12.lotus.com/ldd/doc/uafiles.nsf/docs/QP70/$File/QP7RN.pdf

7.5 Lotus Domino Document Manager 7

Lotus Domino Document Manager 7 (formerly known as Lotus Domino.Doc®) is a ready-built solution for organizing documents for effective shared access by work teams. It manages versions so that each team member has the latest and automates document-driven processes like review and approval, assembly and publishing, archiving, and records

management. With Lotus Domino Document Manager 7, organizations can manage documents efficiently and predictably throughout their life cycles, creating new efficiencies and building the foundation for their content management processes.

Lotus Domino Document Manager 7 also:

► Helps improve organizational effectiveness by providing centralized, consistent management of collaborative documents and information

► Helps speed decisions because information can be reused from stored, shared documents rather than recreated

► Promotes collaboration with support for discussion forums and instant messaging

► Integrates with collaborative services and desktop applications and other IBM Business Partner components

► Provides an attractive cost by leveraging existing Lotus Notes and Domino infrastructure

7.5.1 Overview

Lotus Domino Document Manager 7 has been updated to support Netegrity Siteminder for single sign-on. Support for additional desktop applications allows your users to save and open more file types. More meaningful error messages and logging information for problem resolution and the ability to code profiling capabilities in Lotus Domino 7 for use with agents have been added.

7.5.2 What's new: Features and benefits

Lotus Domino Document Manager 7 is for organizations that need a more efficient method than e-mail to manage documents that are worked on in collaboration with others. Users can author documents in standard and familiar desktop applications, such as Microsoft Office, save them from within those applications directly into Lotus Domino Document Manager, and submit them for review and approval within or across workgroups. After the documents have been approved for publication, Lotus Domino Document Manager 7 stores and provides access to them to help ensure that everyone is using the most current version.

Lotus Domino Document Manager can help improve user productivity and reduce storage and network bandwidth costs by leveraging existing Lotus Notes and Domino infrastructures, which contributes to an attractive TCO. Lotus Domino Document Manager 7 security features empower employees to manage corporate information in a productive way.

The main benefits of upgrading to Lotus Domino Document Manager 7 are:

► Administration and serviceability enhancements
► Easier handling of name changes
► Enhanced installation logging
► Locked document release
► Method entry and exit tracing for LotusScript and agents
► Support for Netegrity SiteMinder

For more information about Domino Document Manager, visit:

http://www.lotus.com/products/product3.nsf/wdocs/domdochome

7.5.3 Supported platforms

Lotus Domino Document Manager 7 can be used in the server platforms listed below when paired with an appropriate Lotus Domino server.

Windows

The supported Windows platforms are:

- ► Windows 2000 Advanced Server (with Domino V6.03, 6.5.1, 6.5.2, 6.5.3, or 7.0)
- ► Windows 2003 Server (with Domino V6.03, 6.5.1, 6.5.2, 6.5.3, or 7.0)

iSeries

The supported iSeries platform is i5/OS Version 5 Release 3 (with Domino V6.03, 6.5.1, 6.5.2, 6.5.3, or 7.0).

UNIX

The supported UNIX platforms are:

- ► AIX V5.2 (with Domino V6.03, 6.5.1, 6.5.2, 6.5.3, or 7.0)
- ► AIX V5.3 (with Domino V7.0 only)
- ► Sun Solaris 8 (with Domino V6.03, 6.5.1, 6.5.2, or 6.5.3)
- ► Sun Solaris 9 (with Domino V6.03, 6.5.1, 6.5.2, 6.5.3, or 7.0)

For more information about system, patch and service pack requirements, see the release notes:

http://www-12.lotus.com/ldd/doc/uafiles.nsf/docs/docmgr70/$File/readme.txt

7.6 Lotus Workflow 7

Lotus Workflow 7 is a stand-alone application development tool that works on top of Lotus Domino and speeds the creation and deployment of workflow-oriented applications. It allows organizations to standardize and streamline time-consuming, people-based activities and track their progress. By providing a platform for automating, refining, and managing complex business processes, Lotus Workflow can help improve response time and reduce costs. Customers can perform manual processes more quickly and consistently, with fewer hindrances. The applications can be easily updated to reflect changes in the organization and to build increased efficiencies into the process. Business processes can be performed more consistently, with fewer errors, because steps are predefined and documented.

The components of Lotus Workflow include:

- ► Lotus Workflow Viewer 7
- ► Lotus Workflow Architect 7
- ► Lotus Workflow Engine 7

7.6.1 Overview

Lotus Workflow 7 software is a stand-alone workflow application development tool that extends the native workflow capabilities of Lotus Domino software and is easy to use. Integrating easily with your Lotus Notes and Domino environments, Lotus Workflow software provides the ability to automate, manage, and monitor business processes and helps reduce the burden of paper-based work. Mission-critical workflow applications can be supported and maintained, rolled out across the enterprise, and quickly modified as processes evolve.

The highlights of Lotus Workflow 7 include:

- ► Shares common attributes and platform support with other Lotus Notes and Domino 7 products
- ► Extends the workflow capabilities of Lotus Domino software to provide a powerful workflow-management system

- ► Allows automation of a document review process through enhanced integration with Lotus Domino Document Manager 7
- ► Helps improve worker response time and reduce the operating costs that are associated with paper- based processes

One of the hallmarks of Lotus Workflow software is its flexibility. Processes can range from completely ad hoc, informal teamwork to rigidly structured procedures with multiple levels of approvals and automatic notification to managers when deadlines are missed. Lotus Workflow software makes it easier to document and refine your company processes to reflect changing business needs.

Lotus Workflow 7 and Lotus Domino Document Manager 7 software are highly compatible, so you can store and manage documents with Lotus Domino Document Manager software, while using Lotus Workflow applications to rapidly deliver documents across your enterprise. This enables your team to edit, review and approve drafts, and delegate and complete assigned tasks faster.

Lotus Workflow 7 includes the Lotus Workflow Architect. This tool utilizes a graphical point-and-click interface for designing business processes and for changing them as your business evolves. The product also provides built-in workflow logic, reusable object libraries for routing rules, role assignment, deadline handling, and task automation, so that even complex processes can be automated with little or no programming. Lotus Workflow allows participants to see their work assignments as part of a flow diagram, using either the Microsoft Windows technology or Web-based Lotus Workflow Web Viewer, so that they can quickly and easily check the status and context of a currently running job.

Lotus Workflow capabilities have been enhanced in version 7 to help you use the Web (whether Internet, intranet, or extranet) to manage business processes for your enterprise more effectively, saving you time and helping improve employee productivity. Lotus Workflow 7 adds the ability to expose its services by leveraging Lotus Domino 7 software core support for Web services hosting. By providing a platform for automating, refining, and managing complex business processes, Lotus Workflow software can help improve employee response time and reduce costs. Users can typically perform manual processes more quickly and consistently, with fewer errors, because steps are predefined and documented.

7.6.2 What's new: Features and benefits

The following areas have been improved for Lotus Workflow 7.

- ► The ability to expose Lotus Workflow services as Web services
- ► Performance of name look-up in Lotus Workflow Architect
- ► Attachment support for browsers
- ► Added reliability, availability and serviceability

Lotus Domino 7 includes the ability to host Web services that are written in LotusScript or Java. Lotus Workflow 7 can leverage this core capability to provide a standards-based interface to core Lotus Workflow services. To assist developers with the implementation of a Web services interface, Lotus Workflow 7 provides example Web services to initiate a workflow, request the status of a workflow, and view activity lists for a workflow. Providing a Web service interface greatly expands the potential for leveraging Lotus Workflow 7 capabilities from other systems.

Other enhancements have been made to improve performance and functionality. Performance for name lookups has been improved, allowing developers to be more productive. Improved error handling and logging allows more issues to be resolved by the customer that can result in increased productivity. Finally, Lotus Workflow 7 adds the ability to

attach files when using a browser to access a Lotus Workflow-enabled application. This means document life cycle workflows for Lotus Domino Document manager can now have a browser interface.

For more information about Lotus Workflow, visit:

http://www.lotus.com/workflow

7.6.3 Supported platforms

Because Lotus Workflow components run on top of Lotus Notes and Domino, there are minimum requirements for Lotus Notes and Domino versions in addition to platform requirements for Workflow.

Lotus Workflow Viewer 7 and Lotus Workflow Architect 7 (Client)

The supported platforms are Lotus Notes Release 6.0.5 or later, Release 6.5.4 or later, Release 7 on Windows 2000 Professional or Windows XP Professional (supported versions).

Lotus Workflow Engine 7 (Server)

The platforms that Lotus Workflow Engine 7 support are listed in this section.

Windows

The Microsoft Windows supported platforms are:

► Windows 2000 Server and Advanced Server on Release 6.0.5 or later version of 6.0.x, Release 6.5.4 or later version of 6.5.x, Release 7

► Windows 2003 Server and Enterprise Edition on Lotus Domino Release 6.0.5 or later version of 6.0.x, Release 6.5.4 or later version of 6.5.x, Release 7

UNIX

The UNIX supported platforms are:

► AIX 5.2 on Lotus Domino Release 6.0.5 or later, Release 6.5.4 or later, Release 7

► Linux UL1.0 on Lotus Domino Release 6.5.4 or later, Release 7

► Sun Solaris 9 on Lotus Domino Release 6.0.5 or later, Release 6.5.3 or later, Release 7

iSeries

The iSeries supported platforms are:

► iSeries Version 5 Release 2, Release 3 on Lotus Domino Release 6.0.5 or later, Release 6.5.4 or later, Release 7

► iSeries version 5 Release 3 on Lotus Domino Release 6.5.4 or later, Release 7

zSeries

The zSeries supported platforms are:

► zOS V1 Release 2 on Lotus Domino Release 6.0.5 or later, Release 6.5.4 or later, Release 7

► Linux for zSeries/ UnitedLinux 1.0 for IBM S/390: Service Pack 2, on Lotus Domino Release 6.0.5 or later, Release 6.5.4 or later, Release 7

For more information about system, patch, and service pack requirements, see the release notes at:

http://www-12.lotus.com/ldd/doc/uafiles.nsf/docs/LWF70/$File/Workflow70Readme.pdf