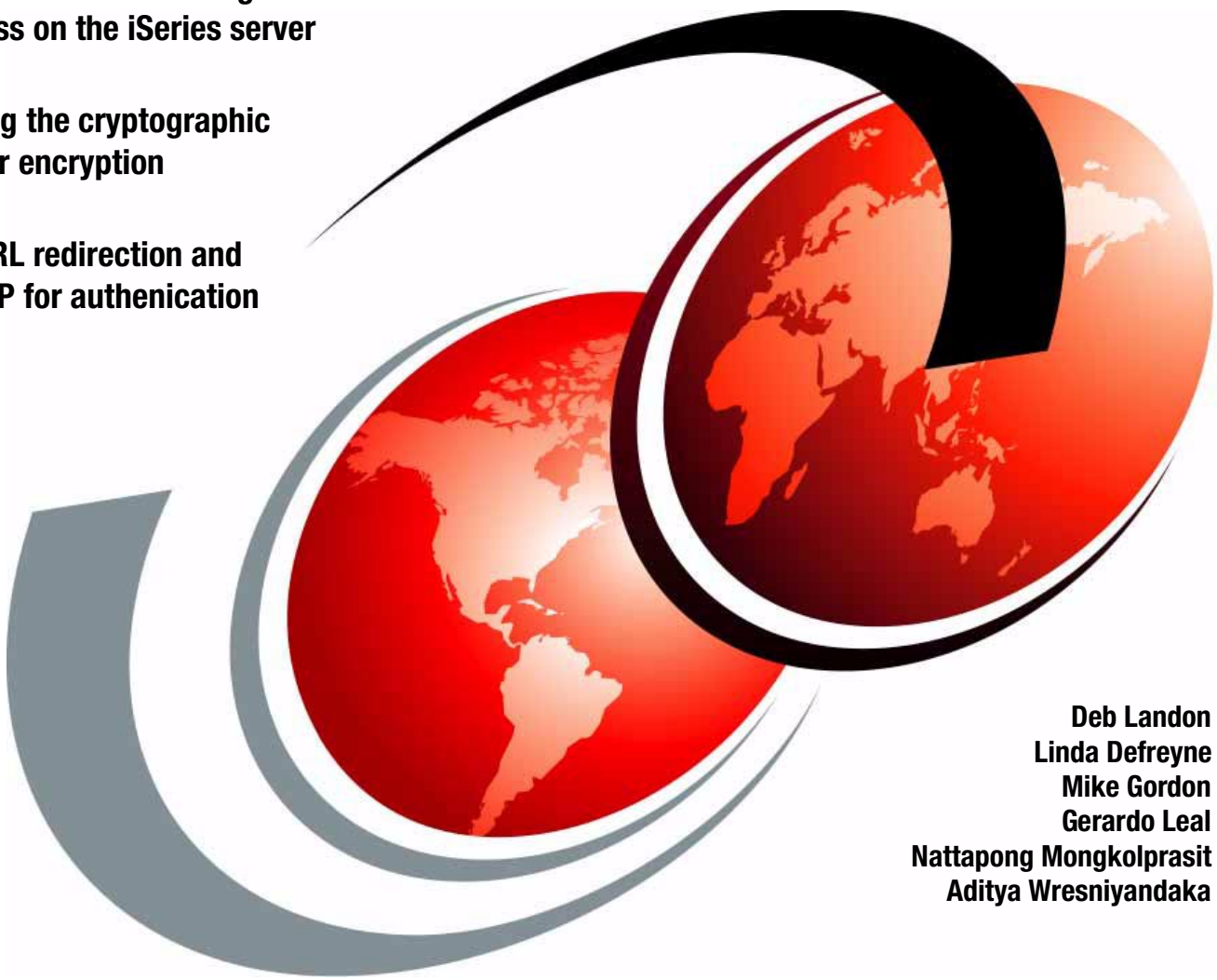
Lotus. software

IBM

iNotes Web Access on the IBM @server iSeries Server

- Deploying and administering iNotes Web Access on the iSeries server
- Configuring the cryptographic adapter for encryption
- Tips for URL redirection and using LDAP for authenication



Deb Landon
Linda Defreyne
Mike Gordon
Gerardo Leal
Nattapong Mongkolprasit
Aditya Wresniyandaka

Redbooks

ibm.com/redbooks

International Technical Support Organization

iNotes Web Access on the IBM @server iSeries Server

February 2002

SG24-6553-00

Take Note! Before using this information and the product it supports, be sure to read the general information in “Special notices” on page vii.

First Edition (February 2002)

This edition applies to Domino for iSeries Release 5.08 or later for use with OS/400 Version 5 Release 1 and later.

Comments may be addressed to:
IBM Corporation, International Technical Support Organization
Dept. JLU Building 107-2
3605 Highway 52N
Rochester, Minnesota 55901-7829

Contents

Special notices

References in this publication to IBM products, programs or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program, or service is not intended to state or imply that only IBM's product, program, or service may be used. Any functionally equivalent program that does not infringe any of IBM's intellectual property rights may be used instead of the IBM product, program or service.

Information in this book was developed in conjunction with use of the equipment specified, and is limited in application to those specific hardware and software products and levels.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to the IBM Director of Licensing, IBM Corporation, North Castle Drive, Armonk, NY 10504-1785.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact IBM Corporation, Dept. 600A, Mail Drop 1329, Somers, NY 10589 USA.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The information contained in this document has not been submitted to any formal IBM test and is distributed AS IS. The use of this information or the implementation of any of these techniques is a customer responsibility and depends on the customer's ability to evaluate and integrate them into the customer's operational environment. While each item may have been reviewed by IBM for accuracy in a specific situation, there is no guarantee that the same or similar results will be obtained elsewhere. Customers attempting to adapt these techniques to their own environments do so at their own risk.

Any pointers in this publication to external Web sites are provided for convenience only and do not in any manner serve as an endorsement of these Web sites.

IBM trademarks

The following terms are trademarks of the International Business Machines Corporation in the United States and/or other countries:

e (logo)® 
AIX®
APPN®
AS/400®
AS/400e™
DB2®
IBM®
iSeries™
OS/2®
OS/400®
PartnerWorld®
Perform™
PowerPC®
pSeries™
Redbooks™
RS/6000®
S/390®
SP™
SP2®
System/36™
System/38™
WebSphere®
zSeries™
Lotus®
1-2-3®
Lotus Notes®
Notes®
Sametime®
Domino™
iNotes™
Lotus iNotes™
Lotus QuickPlace ™
Lotus Sametime™
Mobile Notes™
QuickPlace™
Redbooks (logo)™ 

Other company trademarks

The following terms are trademarks of other companies:

C-bus is a trademark of Corollary, Inc. in the United States and/or other countries.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and/or other countries.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States and/or other countries.

PC Direct is a trademark of Ziff Communications Company in the United States and/or other countries and is used by IBM Corporation under license.

ActionMedia, LANDesk, MMX, Pentium and ProShare are trademarks of Intel Corporation in the United States and/or other countries.

UNIX is a registered trademark in the United States and other countries licensed exclusively through The Open Group.

SET, SET Secure Electronic Transaction, and the SET Logo are trademarks owned by SET Secure Electronic Transaction LLC.

Other company, product, and service names may be trademarks or service marks of others.

Preface

iNotes Web Access is a next-generation Web client that allows you to use many of the messaging and collaboration features of Domino through a Web browser. You can work with mail, calendar, to do lists, or a journal-like notebook from any client with Web browser access – without requiring a Lotus Notes client. You also have the option to work offline, without a permanent connection to the Domino server, or to work online seamlessly.

iNotes Web Access on the IBM @server iSeries server is not a platform-specific implementation. At the time when this IBM Redbook was written, only the redbook *iNotes Web Access Deployment and Administration*, SG24-6518, which is based on general platform information, was available. This IBM Redbook extends the topics written in that redbook from an iSeries server platform perspective. It also includes other general iNotes Web Access topics such as single sign-on, using LDAP for authentication, and URL redirection.

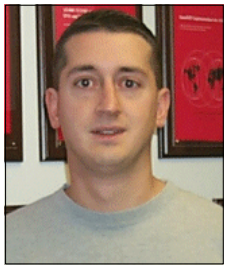
You can download the redbook, *iNotes Web Access Deployment and Administration*, SG24-6518, from the IBM Redbooks Web site (`http://www.redbooks.ibm.com`). You should also refer to the Lotus white paper, *iNotes Web Access Deployment Guide 5.0.9*, which is available for download from the Web site (`http://notes.net`). We strongly recommend that you use these materials, along with this redbook, for a complete guideline on how to deploy and implement iNotes Web Access on the iSeries server.

The team that wrote this redbook

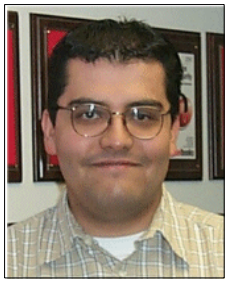
This redbook was produced by a team of specialists from around the world working at the International Technical Support Organization (ITSO), Rochester Center.

Deb Landon is an IT Specialist in the ITSO, Rochester Center, focusing on Domino for iSeries. Before joining the ITSO in November of 2000, she was a member of the PartnerWorld for Developers, iSeries team supporting business partners in the area of Domino for iSeries. She was a member of the original team who created the highly successful Domino Days event that has since been replicated many times worldwide.

Linda Defreyne is a Principal Lotus Certified Lotus Professional (CLP) in Administration and Development and a Certified Lotus Instructor in Brugge, Belgium. She works as a free-lance instructor and consultant. She has 13 years of experience on the AS/400 and iSeries server and five years with Lotus Domino. Linda holds a degree in educational sciences from the University of Leuven in Belgium. She has been teaching classes for IBM and other companies since 1986, starting with System/36 and System/38. She also provides customer support on the iSeries server and on Lotus Domino and specializes in Domino for iSeries.



Mike Gordon is an Advanced Technical Support IT Specialist in IBM Rochester. He has more than four years of experience in Lotus Domino products on iSeries. He provides technical support for the internal implementation of Domino on iSeries in Rochester. He is a Principal R5 Lotus Notes System Administrator. He holds a degree in Management Information Systems from the University in Wisconsin - LaCrosse. His areas of expertise include Lotus Domino products, Domino administration, and architecture.



Gerardo Leal is a consultant for Lotus Professional Services in Mexico. He has five years of experience in working with Lotus Notes and Domino technology. He holds a degree in Information Sciences from La Salle University in Mexico City. His areas of expertise include Domino administration and architecture, Knowledge Management, and portals. This was his first residency in the ITSO.

Nattapong Mongkolprasit is a Technical Pre-Sales IT Specialist in IBM Thailand. He has more than five years of experience in Lotus Domino products on AS/400 and iSeries. He provides technical pre-sales support for the sales team by doing product presentations, demonstrations and design solutions for customers. Nattapong is also an instructor for technical classes for IBM/Lotus Business Partners and Customers. He holds a degree in Electrical Engineering from Chulalongkorn University in Bangkok. His areas of expertise include Lotus Domino products, TCP/IP networking, and Internet products on OS/400, AIX, Windows, and Linux.

Aditya Wresniyandaka has more than ten years of experience as an IT Professional working in the IBM iSeries (formerly AS/400), Lotus Domino, WebSphere Application Server, Internet application development, and database design areas. He is a Principal CLP R5 Application Developer, IBM Certified Systems Expert for WebSphere Application Server 3.5 Advanced Edition, and IBM Certified for e-Business Solution Technologist. Aditya received his Master of Science in Management Information Systems from the University of Arizona in Tucson, Arizona. He is a Principal Consultant in IBM Global Services - Rochester iSeries Services group in Rochester, Minnesota.

Thanks to the following people for their contributions to this project:

Thuy Christenson
Barb Foss
Joe Peterson
Domino for iSeries Development Team, IBM Rochester

Marcy Howerter
Dave Johnson
Domino for iSeries Performance Team, IBM Rochester

Walter Scanlan
Domino for iSeries Support, IBM Rochester

Notice

This publication is intended to help the Domino administrator to deploy iNotes Web Access on the iSeries server. It is assumed that you have a good knowledge of using Lotus Notes and administrating Domino servers and some knowledge of using the IBM iSeries server.

Comments welcome

Your comments are important to us!

We want our Redbooks to be as helpful as possible. Send us your comments about this or other Redbooks in one of the following ways:

- Use the online **Contact us** review redbook form found at:

  ibm.com/redbooks

- Send your comments in an Internet note to:

  redbook@us.ibm.com

- Mail your comments to the address on page ii.

1

Overview

This chapter provides an overview of the Lotus client strategy, as well as what iNotes Web Access is and how it fits into this strategy. It also discusses the features of iNotes Web Access and the concept of working offline.

This chapter covers the following topics:

- What is iNotes
- iNotes Web Access
- Lotus Domino clients available
- Basic features and functions of iNotes Web Access

1.1 What is iNotes

To explain what iNotes is, we have to position the iNotes client in the Lotus client strategy. The Lotus client strategy consists of:

- **Lotus Notes**

  An integrated, collaborative client environment that provides users with quicker access to, and better management of, many types of information. This may include Domino and Internet-based e-mail, a calendar of appointments, personal contacts and to dos, as well as Web pages, discussions, collaboration, and intranet applications.

- **Mobile Notes via the Mobile Services for Domino server**

  Provides secure anytime, anywhere interactive access to Notes mail, calendar, and corporate directory from Web-enabled devices, including cell phones, pagers, and personal digital assistants (PDAs). Plus, Mobile Notes also takes advantage of Mobile Services for Domino push technology for paging and short messaging services.

- **iNotes**

  Delivers powerful Domino messaging, collaboration, and e-business capabilities to Web browser, POP3, IMAP, and Outlook 98/2000 clients.

Regardless of what client you use for messaging, the underlying technology is the same – a Lotus Notes/Domino database.

iNotes is the name for a family of products that provides Domino messaging, collaboration, and e-business capabilities to Web browser and Microsoft Outlook users. The iNotes family consists of three products:

- iNotes Web Access
- iNotes Access for Microsoft Outlook
- Lotus iNotes Sync Manager

1.2 iNotes Web Access

iNotes Web Access is a Web client that allows users to access different Domino services using a Web browser. iNotes Web Access provides the Web browser user the majority of features that were previously only available for users with non-Web browser clients, such as Lotus Notes. These features are in the areas of messaging, calendar and scheduling, task management, and personal journal. Users can also work offline to manage e-mail messages, contacts, calendars, to-do items, and so forth from the user interface that iNotes Web Access provides.

iNotes Web Access can be used independently or together with the Lotus Notes client. Users can use the Lotus Notes client while they are in their office environment. Or they can use iNotes Web Access while they are remote, with the possibility to use only a Web browser, such as in an Internet Cafe, another user's PC, or the user's home PC. When using both clients in different situations, users still use the same mail file and the information is always up-to-date.

For administrators, iNotes Web Access provides a simple client that is easy and cost-effective to manage and deploy. This is all from within the same Domino infrastructure that they already manage. The thin-client and server-based deployment model, as well as no training requirements, allow companies to get users up and running quickly.

You might have a Domino installation in your organization, and your users have been using Notes clients to access Domino services for a while. So, what's the big difference with iNotes Web Access compared to earlier releases of the Domino server?

Starting with Domino Release 5.0.8, iNotes Web Access is shipped with the Domino server. iNotes Web Access uses mostly files that reside on a Domino server. In addition to a Web browser, only a few things have to be installed on the user's workstation and only when users need to access their mail files offline. In case some other files are needed locally, they are also loaded from the Domino server. The files that are related to iNotes Web Access on the Domino server include:

- **iNotes5.ntf**: The actual template used to create or upgrade mail files for users
- **forms5.nsf**: Contains most of the elements used to build the iNotes Web Access user interface

1.3 Lotus Domino clients available

There is a wide range of clients available to access services provided by a Domino server. This section briefly explains the following clients and provides suggestions of when you might use each of these clients:

- Lotus Notes
- iNotes Web Access
- iNotes Access for Outlook
- Domino WebMail
- POP3 and IMAP

The selection of the client is based more on the requirements of your particular environment, rather than the specific features of a certain client.

1.3.1 Lotus Notes

Lotus Notes is an integrated e-mail and e-business software for the Internet and corporate intranets. Notes integrates information sources, including e-mail, calendaring, group scheduling, to-do list, and more. Notes users can exchange messages via the Internet, work with any Web application, read and post topics to Internet news groups, search Web directories, and use X.509 certificates for security. Notes users have access to their e-mail and other applications while they are offline, giving them the option to synchronize their work later.

Integration with the Lotus Domino R5 server makes Lotus Notes R5 available as an e-business client, with high functionality, security, and customization options. There are built-in collaborative applications, like discussions and document libraries, as well as third-party Domino-based e-business solutions. A sample of the Lotus Notes client is shown in Figure 1-1.

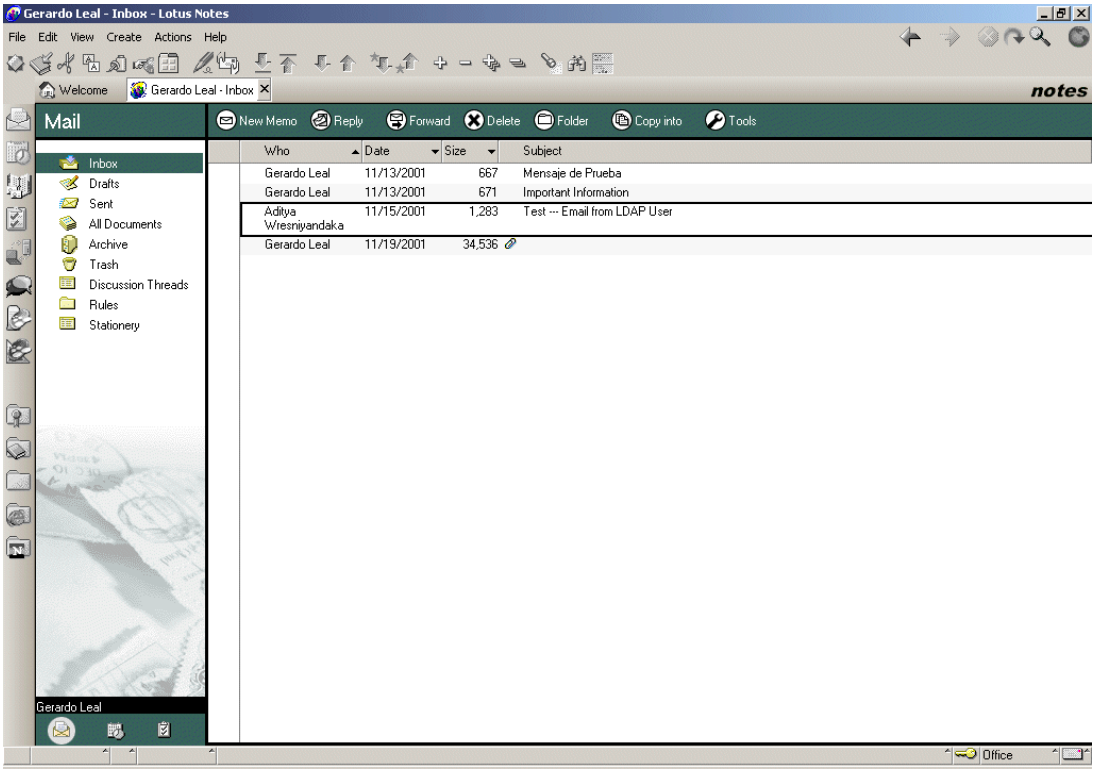


Figure 1-1 Lotus Notes client

When to use the Lotus Notes client

Your users may need more than just a mail client, for example, to integrate mail, calendar, address book, and to-do list, into workflow, Web, and e-business applications. The client to use in such case is the Lotus Notes client.

1.3.2 iNotes Web Access

iNotes Web Access combines Domino messaging, collaboration, and e-business capabilities and provides them for users using Web browsers. iNotes provides centralized management and deployment and a no-touch installation to the user's desktop. It delivers messaging, calendaring, and collaboration functions to Web browsers through an easy to use user interface, both online and offline. An example of the iNotes Web Access client is shown in Figure 1-2.

Note: It is important to understand that today, iNotes Web Access only supports the Win32 Internet Explorer Web browser 5.01 Service Pack 1 or above. Netscape Navigator is *not* supported at this time.

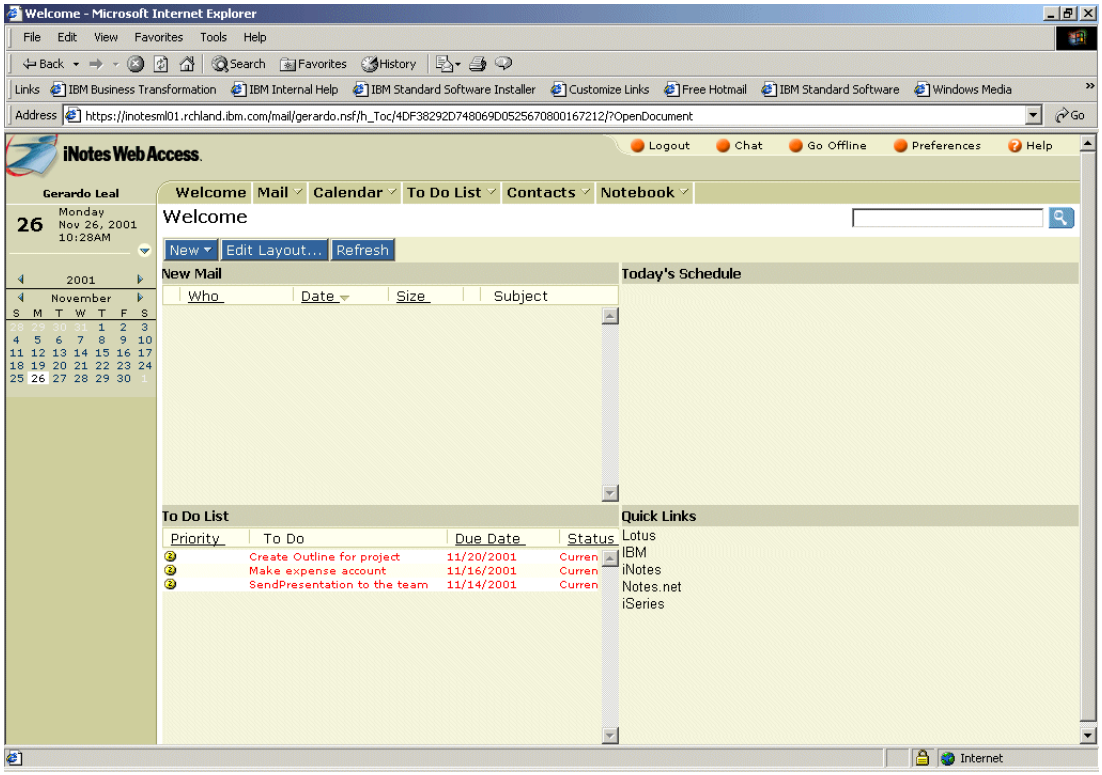


Figure 1-2 iNotes Web Access client

When to use the iNotes Web Access client

You may want to choose iNotes Web Access for your client in situations where you are upgrading from a traditional mail system to a Web browser-based mail or when you are installing your first mail system.

Consider using iNotes Web Access if your users don't have a designated workstation or if your users have to connect their mail files from computers with only a Web browser installed or from outside your organization's network.

iNotes Web Access is a wise choice also for organizations using Lotus Notes mail. It does not have to be the exclusive decision between Lotus Notes or iNotes Web Access, because you can use both iNotes Web Access and Lotus Notes to access your mail file in different situations.

If your organization has Domino WebMail users, you may want to provide them better functionality by upgrading to iNotes Web Access.

1.3.3 iNotes Access for Microsoft Outlook

iNotes Access for Microsoft Outlook brings reliable, scalable Domino messaging to Microsoft Outlook 98/2000 users.

The Microsoft Outlook user experience is unchanged with iNotes Access for Microsoft Outlook; users simply work with their mail, calendar, and task data on Domino instead of Microsoft Exchange. Familiar Microsoft Outlook features are supported, including rich text, folders, and integration with Microsoft Office applications.

iNotes Access for Microsoft Outlook also gives Microsoft Outlook users the additional benefits of Domino messaging features that are not available with Exchange. This includes full text-search capabilities for their mailbox, superior mobile capabilities, and native support for Internet standards (SMTP/MIME and HTML). Figure 1-3 shows an example of Microsoft Outlook running iNotes Access for Microsoft Outlook.

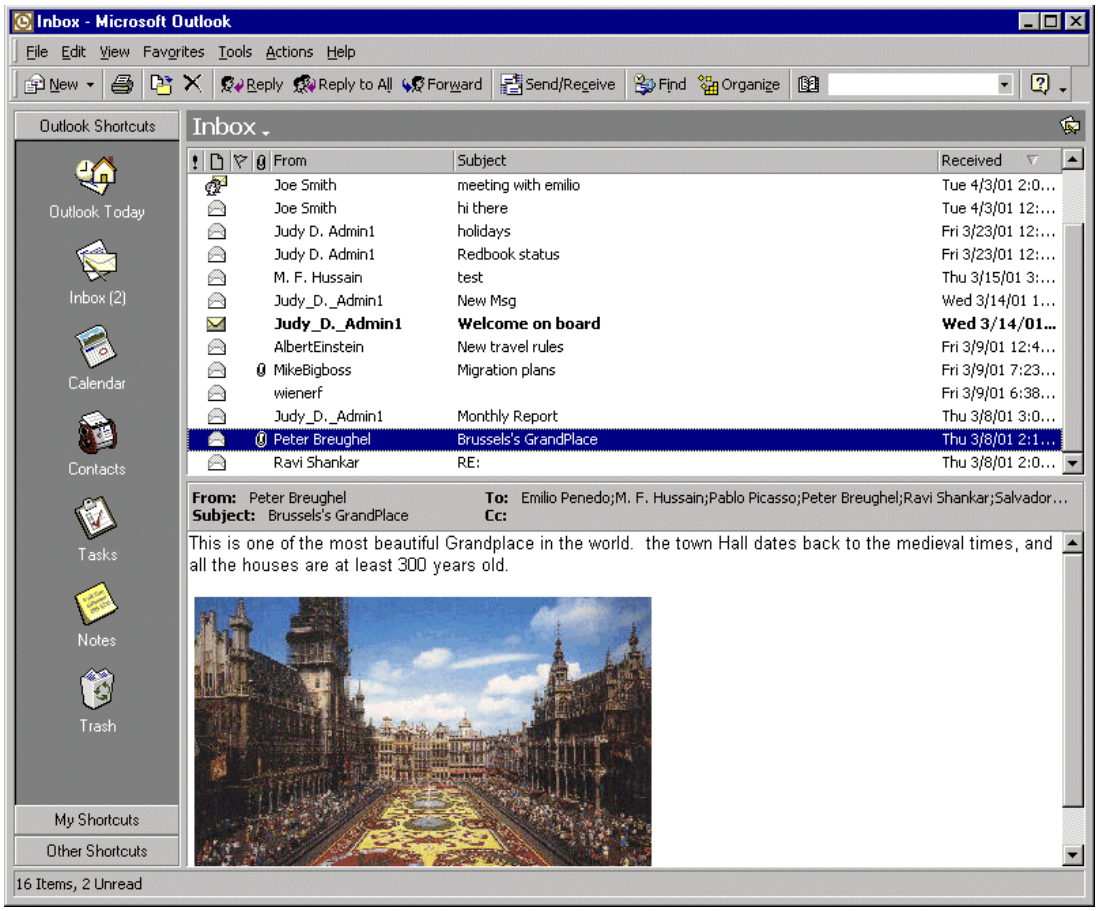


Figure 1-3 Microsoft Outlook client running iNotes Access for Microsoft Outlook

For additional information on iNotes Access for Microsoft Outlook, please refer to *Exchange Migration and iNotes Implementation on the IBM @server iSeries server*, SG24-6230.

When to use the iNotes Access for Microsoft Outlook client

You may want to improve the reliability and scalability of an existing messaging infrastructure and add e-collaboration, by upgrading from Microsoft Exchange to Domino, without changing clients. In this case, iNotes Access for Microsoft Outlook is the correct choice for the client.

1.3.4 Domino WebMail

Domino WebMail gives users the ability to access the Notes mail file from a Web browser, with basic functionality and user experience. For the current version of iNotes Web Access, Web Mail is the interface that Netscape browser users will see when opening their mail file. Figure 1-4 shows an example of the Domino WebMail client.

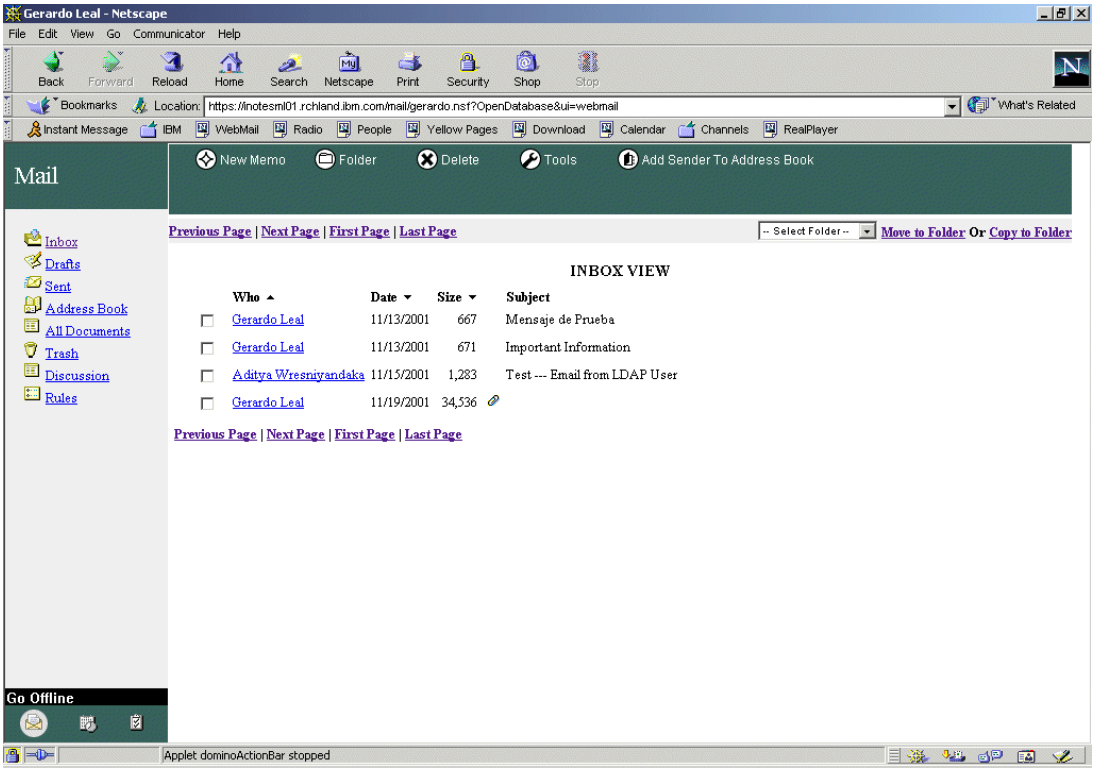


Figure 1-4 Domino WebMail client

When to use Domino WebMail

Domino WebMail is still a valid option for users who use such platforms as UNIX, Linux, or OS/2. You can also use it if your organization is using another Web browser other than Internet Explorer, such as Netscape Navigator.

1.3.5 POP3/IMAP

The Lotus Domino server provides access for POP3 and IMAP clients such as Outlook Express, Netscape Messenger (Figure 1-5), and Eudora.

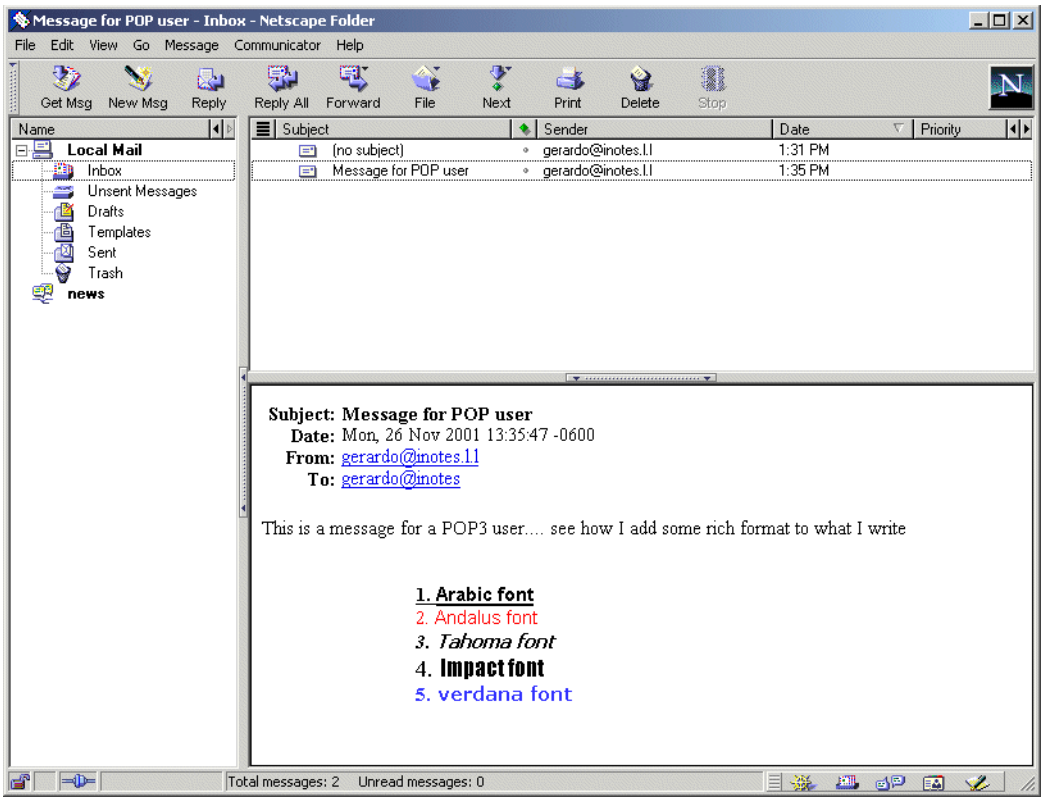


Figure 1-5 POP3 client

When to use a POP3/IMAP client

Some organizations have already deployed users with standard mail clients. Regardless of what the current underlying technology is for their mail server, this can be replaced by a Domino server, without further changes on the user side. This avoids retraining the user because they are already using a familiar interface.

1.4 Basic features and functions of iNotes Web Access

This section describes some of the basic features and functionality that iNotes Web Access provides.

Tip: For additional details of basic iNotes Web Access features and functions, please refer to *iNotes Web Access Deployment and Administration*, SG24-6518.

To access a Domino mail database from the Internet Explorer Web browser, you access the URL to the mail database, in either of the following forms:

```
http://server.domain.com/mail/user.nsf
http://server.domain.com/mail/user.nsf?OpenDatabase
```

Using this URL automatically redirects the Netscape user to the WebMail interface or opens the iNotes Web Access interface to the Internet Explorer user.

1.4.1 Mail

You can create anew message from virtually anywhere in the iNotes Web Access interface. Clicking the New button creates a new message when you are in the Inbox, Folder, Sent, or Drafts views. If you are elsewhere in iNotes Web Access, such as the Calendar, To-Do, or Notebook views, clicking New -> Message also creates a new mail message (Figure 1-6).

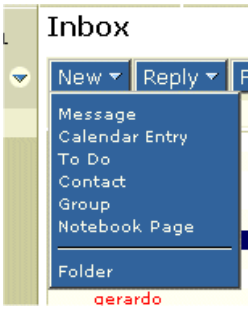


Figure 1-6 Drop-down menu in iNotes Web Access to create a new document

This brings up the New Message window where you fill out, as with any other mail client, the TO:, cc:, bcc:, and Subject: fields (Figure 1-7).

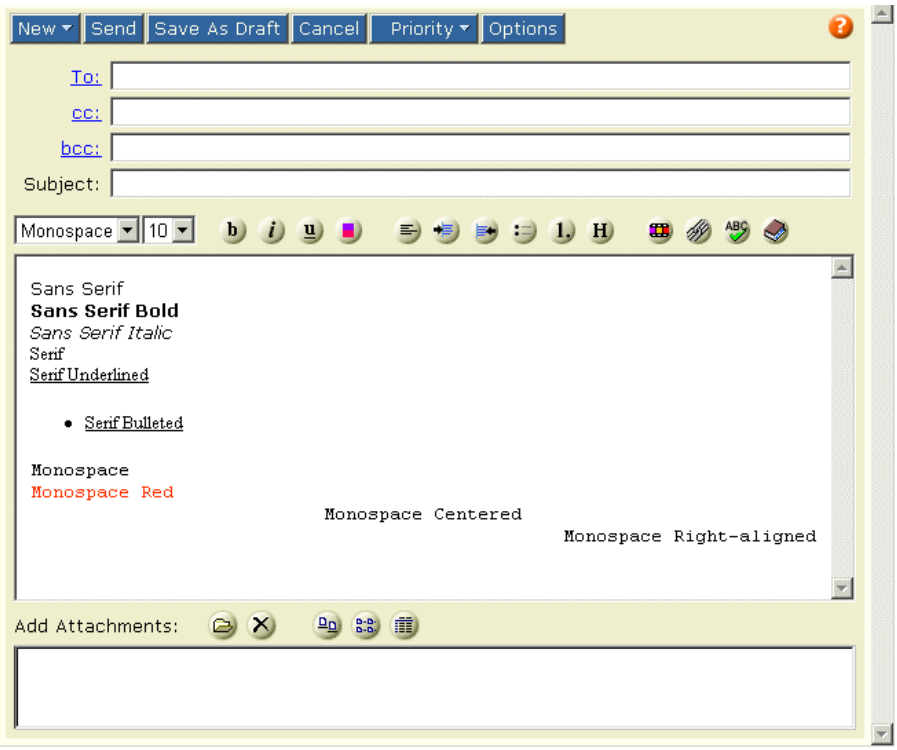


Figure 1-7 iNotes Web Access new message window

You also have a body field, where you have limited use of rich text functionality including: three different fonts, tabs, bold, italic, bullets, numbering, headline format, as well as different colors.

Spell-checking is also available. To select the language, click the last icon on the right (looks like a book icon), and the window shown in Figure 1-8 appears.

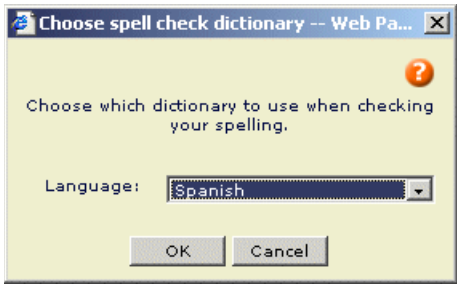


Figure 1-8 Choosing a dictionary for spell-checking

All the spelling dictionaries installed on the Domino server are available for use by the iNotes Web Access user, with no additional configuration required.

You can also attach as many files to the message as you want.

e-mail notification

If e-mail is enabled on the Domino server's configuration document, you will receive a pop-up window that notifies you when new mail has arrived.

1.4.2 Calendar

There are eight different views in the calendar, as listed in Figure 1-9.

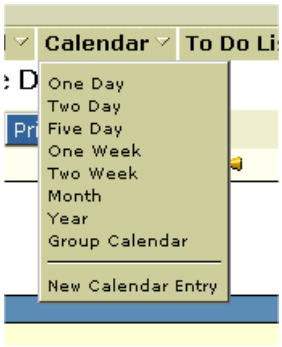


Figure 1-9 iNotes Web Access calendar views

There are five different types of calendar entries:

- **Meeting**: A meeting creates an entry in the originator's calendar, with a predefined start and end. Like a mail message, a meeting is sent to the people designated in the To:, cc:, and bcc: fields, and if accepted, is added to their respective calendars.
- **Appointment**: An appointment is an entry with predefined start and end times, as well as a date.
- **All Day Event**: An all-day event has only a predefined date with no start or end times, marking the entire time on that day as busy.
- **Anniversary**: An anniversary is like an all-day event, without booking the entire day as busy.
- **Reminder**: A reminder is an entry in the calendar at a very specific time; it does not have a duration.

Alarms

For any of these calendar entries, you can specify an alarm. When an alarm is activated, a pop-up window (Figure 1-10) appears to notify the user.

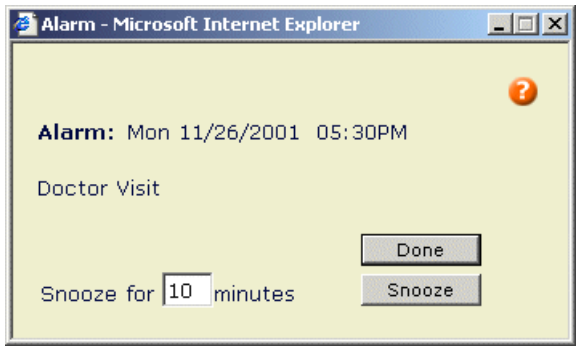


Figure 1-10 Calendar alarm notification

Alarms can be enabled or disabled globally by the administrator in the Domino server configuration document.

1.4.3 To Do list

With iNotes Web Access, you can also manage personal pending tasks, similar to what is done in the Lotus Notes client. However, Lotus iNotes Web Access differs on two aspects. First, there is no support for group to dos, and second, it adds a Gantt chart view to the traditional list view (Figure 1-11).

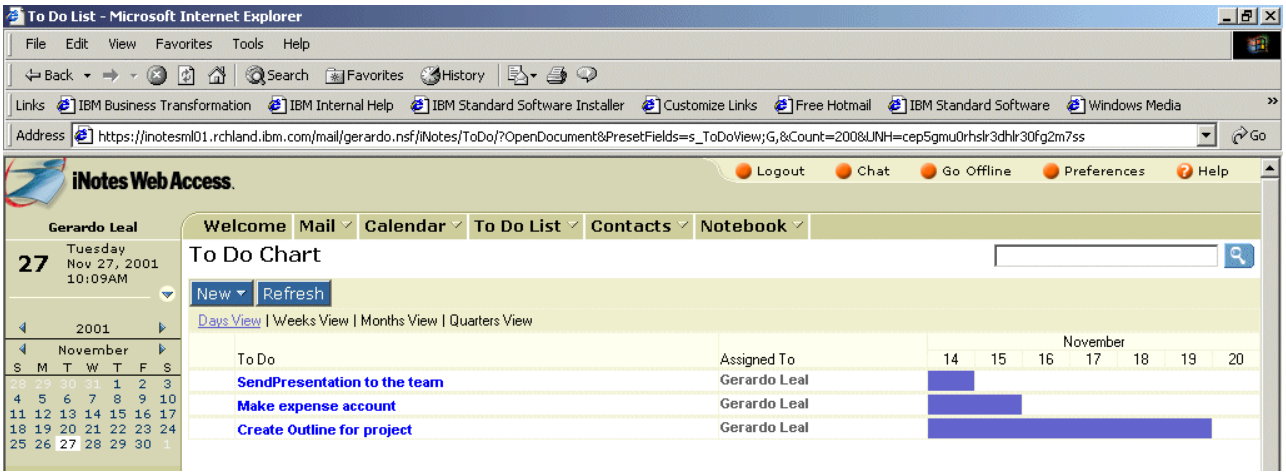


Figure 1-11 iNotes Web Access To Do list: Gantt chart view

When you create a new to do item, you can add an alarm to alert you in advance of the due date, as well as set a repeat interval for periodical tasks.

1.4.4 Contacts

When working with iNotes Web Access, you can work with a contact list containing both individual and group entries. While the contact information is stored in a separate file (names.nsf) for Notes client users, all contact and group information is stored on the same file as the mail and calendar information for iNotes Web Access users.

If a user accesses their mail file both from the iNotes Web Access client and from the Lotus Notes client, the iNotes template provides a way to synchronize the contacts between the personal address book in the Notes client and the contact list in iNotes Web Access (Figure 1-12).

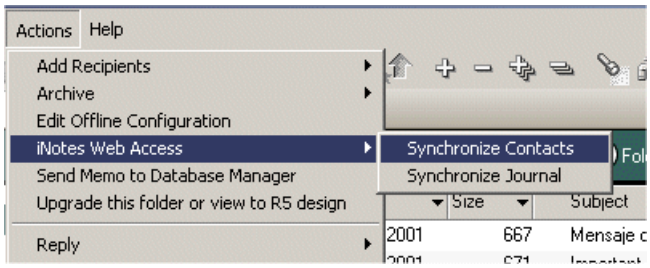


Figure 1-12 Synchronizing contacts in personal address book with contact list in iNotes Web Access

1.4.5 Notebook

iNotes Web Access also provides a section to register all-purpose information, such as notes or a file repository. The notebook section provides the ability to create simple documents with a formatted text body and file attachments.

Like the contacts section, if the user uses both the Lotus Notes client and the iNotes Web Access client, the notebook section can also be synchronized with the journal.nsf file on the Notes client (Figure 1-13).

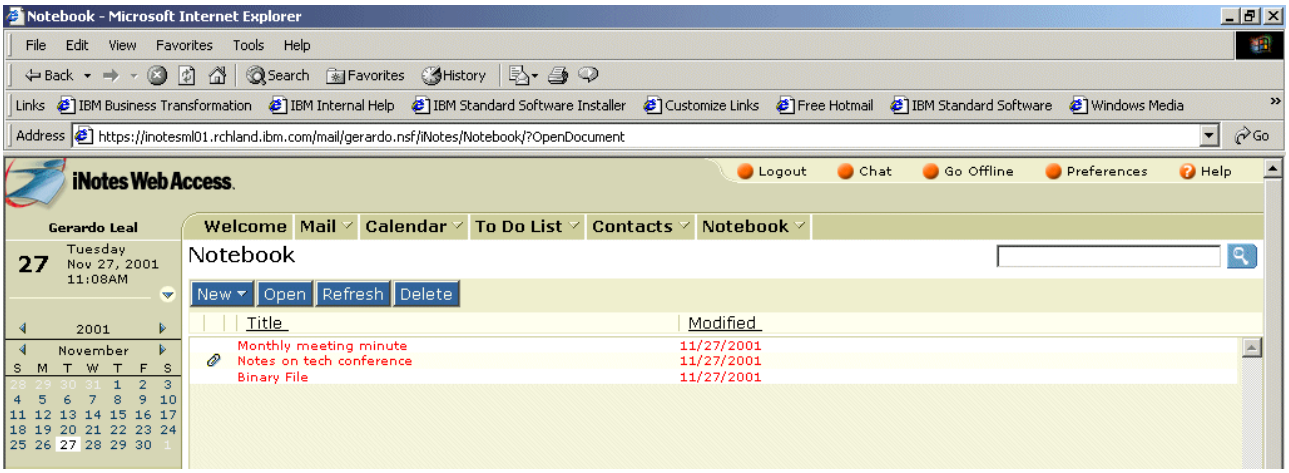


Figure 1-13 iNotes Web Access notebook

To synchronize the notebook with the journal file on the Lotus Notes client, from the Notes workstation, open the mail file, and select the pull-down menu options **Actions-> iNotes Web Access-> Synchronize Journal**.

1.4.6 Sametime enabled chat

iNotes Web Access provides integration with Sametime offering a chat client that can be launched from the iNotes Web Access user interface allowing you to start chat sessions with one or more users. To use this function, you click the Chat icon from the upper right corner of the iNotes Web Access client. Figure 1-14 shows an example of the chat client available in iNotes Web Access.

Note: To use the chat client in iNotes Web Access, Sametime must be already configured and running. Also, the Sametime server name must be in each Person document.

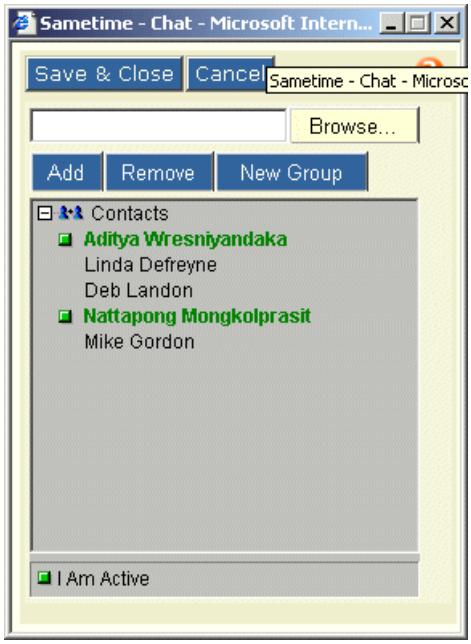


Figure 1-14 iNotes Web Access chat client

This chat client does not have the same capabilities as the Sametime connect client for Web browsers. Basically this chat client only allows chat sessions and not application sharing or audio/video sessions.

1.4.7 Working offline

iNotes Web access adds the ability to work offline using the same familiar Web browser interface, while at the same time providing the features of replication.

To work offline with iNotes Web Access, you need the Lotus iNotes Sync Manager (that can be downloaded from the Domino server). Then create a subscription to your mail database. This subscription is the local replica of the mail file that will be used when working offline (Figure 1-15).

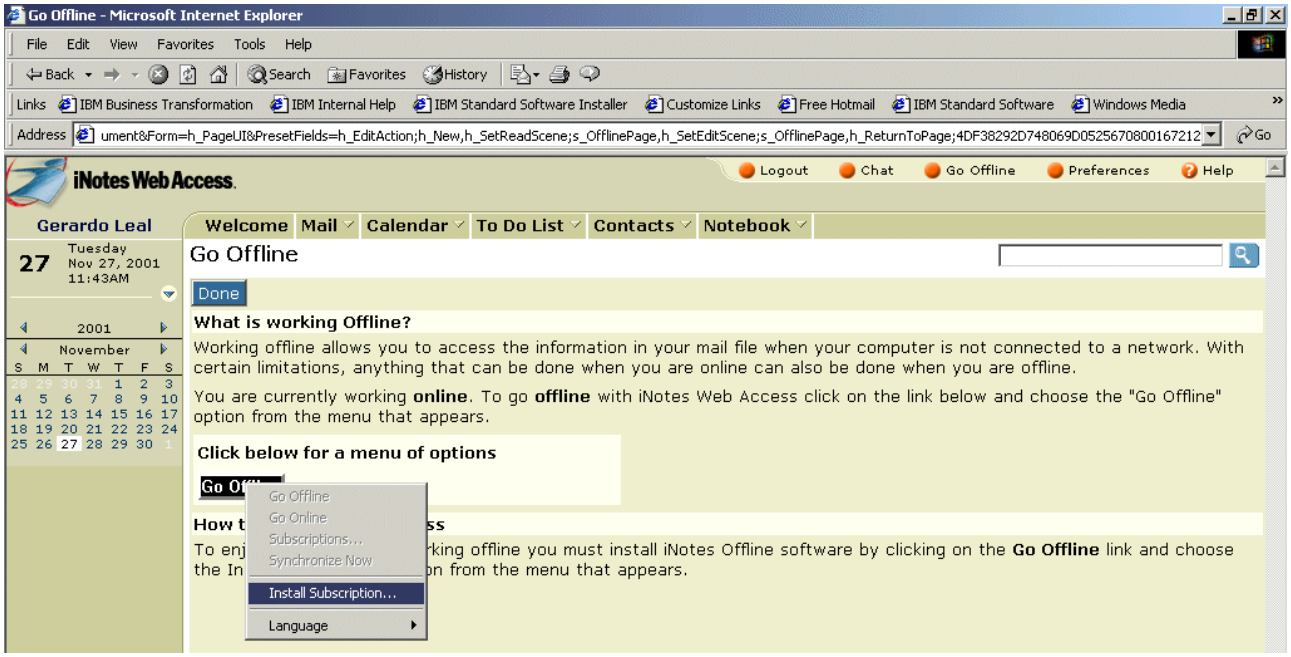


Figure 1-15 Installing an offline subscription

The first time the offline function is used, the offline subscription is installed along with the Lotus iNotes Sync Manager software. Depending on how the Domino Off-Line Security (DOLS) document has been configured, you may be prompted for your Notes ID password. The ID will be retrieved from the Domino Directory, or a new one will be created automatically.

Note: You can find more details on setting up DOLS and offline support for iNotes Web Access users in Chapter 2, “Setup and deployment” on page 17.

Once installed, the Lotus iNotes Sync Manager application synchronizes the subscription periodically with almost the same functionality as the Replicator page of the Lotus Notes client (Figure 1-16).

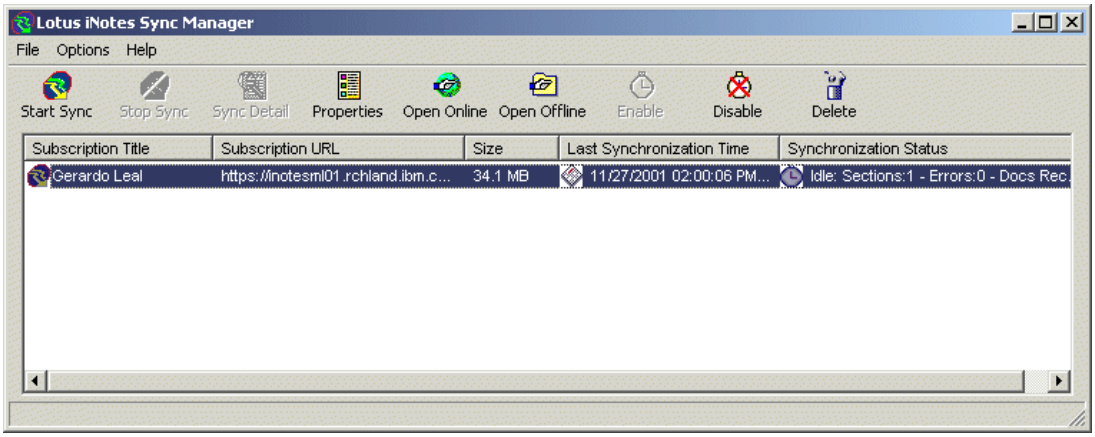


Figure 1-16 iNotes Sync Manager

Synchronization settings

You can set options as to how the subscription is going to be synchronized (Figure 1-17).

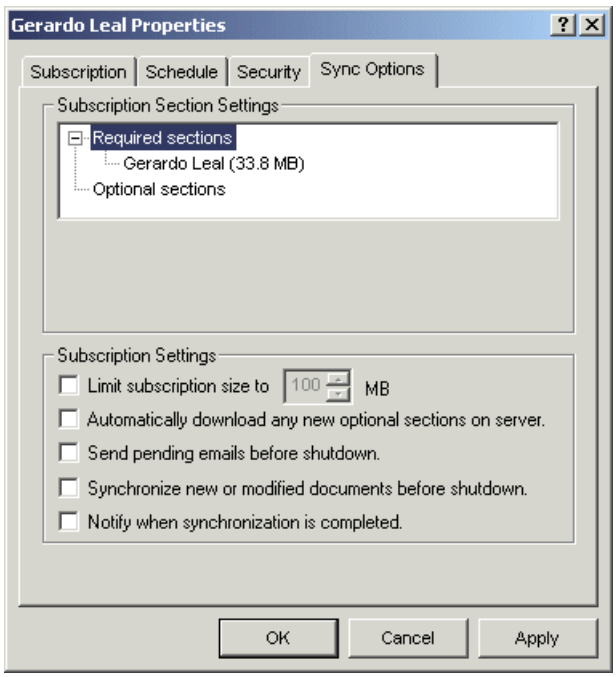


Figure 1-17 Lotus iNotes Sync Manager subscription properties

Some of the synchronization options you can set include:

- **Subscription size**: You can limit the subscription size to a maximum. We do not recommend setting the limit under 5 MB, because the template itself is 5 MB.
- **Automatically download any new optional sections on server**: If this option is enabled, any new optional section that is made available on the server is added to the local subscription.
- **Send pending emails before shutdown**: If enabled, any e-mails that are still created locally, but still not synchronized, are sent to the server.
- **Synchronize new or modified documents before shutdown**: If enabled, this option runs synchronization before shutting down the Lotus iNotes Sync Manager.
- **Notify when synchronization is completed**: When enabled, a pop-up window appears when the synchronization process is complete.

How it all works together

Figure 1-18 and the following series of steps explain the offline synchronization process and how it differs from accessing the database online when working with the iNotes Web Access client:

1. The mail file must have the iNotes5.ntf template.
2. This template enables the user to access the iNotes Web Access client interface using the Web browser.
3. When the user chooses to go offline, they download the Lotus iNotes Sync Manager, and a subscription is created. A subscription is actually a replica copy of the mail database. When updating the subscription (replicating), the Lotus iNotes Sync Manager behave like a Notes client, using the Notes Remote Procedure Call (NRPC) protocol to access the database on the Domino server.

Note: For the Domino server, there is no difference between users that synchronize using the Lotus iNotes Sync Manager and those that replicate using the Lotus Notes client.

4. When working offline, the user is using the Web browser to access the local mail file (a Domino database).

Note: When the user accesses the local subscription using a Web browser, an instance of a Domino server is run locally with only the HTTP task running. This instance of a Domino server uses port 89 to locally listen to the HTTP requests from the Web browser.

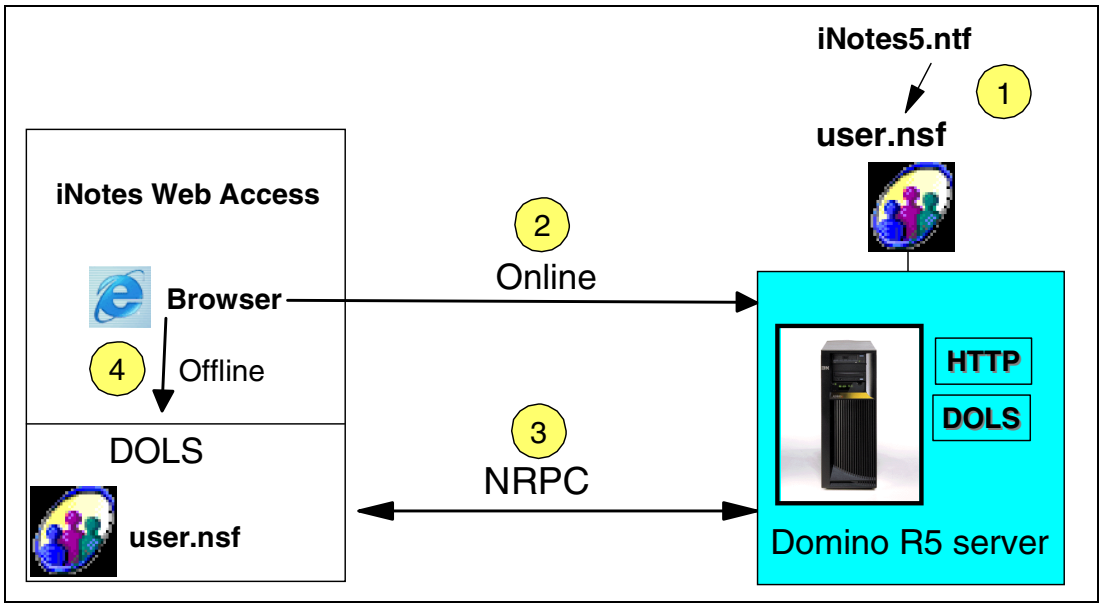


Figure 1-18 Working online and offline with iNotes Web Access

2

Setup and deployment

This chapter contains the hardware and software requirements for the end-user workstations and the Domino servers deploying iNotes Web Access on the iSeries server. It also covers how to prepare and setup iNotes Web Access on the iSeries server.

Note: Throughout this redbook, we assume that you have basic skills on Domino and iSeries administration.

This chapter discusses the following topics:

- End-user workstation requirements
- Administrator workstation requirements
- iSeries server requirements
- Setting up iNotes Web Access on the Domino server
- Deploying and setting up clients
- Other considerations when deploying in certain environments
- National language support
- Performance and sizing considerations

2.1 End-user workstation requirements

The following sections describe the hardware and software requirements for the end-user workstation.

2.1.1 Hardware requirements

Workstation requirements depend on several factors such as the operating system and characteristics of how each user utilizes the client. Most users not only use mail and calendar on their workstation, but they also use office applications or other productivity applications.

Based on the *Lotus iNotes Web Access R5.0.9* white paper (http://notes.net), the general recommended hardware configuration for the enduser workstation is:

- 500 MHz processor
- 256 MB main memory
- (Optional for offline usage only) 200 MB of disk space for offline usage; 75 MB for program code; the rest of the space for user's mail and full-text index. If the user has a larger mail file, more disk space is required.

Note: There are several sources from Lotus and IBM that discuss the minimum client requirements, and there are some discrepancies. From customer feedback and from our test environment, generally the Pentium II 400 MHz with 128 MB memory is enough to achieve a reasonable response time and performance.

2.1.2 Software requirements

The iNotes Web Access end-user workstation requires the following software:

- Windows 32-bit operating system: Windows 95, Windows 98, Windows NT 4.0, or Windows 2000
- Internet Explorer 5.01 with Service Pack 1 or Internet Explorer 5.5
- (optional) Adobe Acrobat Reader Version 4.0 or above is required for calendar previewing and printing
- (optional) Other applications, such as office products, are required for opening documents directly from attached files.

Note: Even though Internet Explorer (IE) 6 may work with iNotes Web Access, if you upgrade from IE5.01 or IE5.5 or if you install the optional feature of Microsoft virtual machine, it is not officially supported by Lotus in the initial releases of iNotes Web Access. Windows XP also comes with Internet Explorer 6, so it also is not officially supported by Lotus.

Accessing iNotes Web Access using other Web browsers, such as Netscape 4.x, Internet Explorer on Mac and UNIX platforms, Smartphone, and PDAs, are not supported by the current releases of Domino R5.0.8 and later R5.0.x.

2.2 Administrator workstation requirements

There is no special iNotes administrator client. The administrator uses the Lotus Domino Administrator client to setup and manage iNotes Web Access. They may also install the software for the end user on the workstation to test the functionality before deploying to them. Therefore, the administrator can use an existing Domino R5 Administrator workstation to set up and manage both iNotes Web Access and Lotus Notes users.

2.2.1 Additional software requirements for administration

iNotes Web Access administration requires the following software in addition to the software requirements listed in 2.1.2, “Software requirements” on page 18:

- Lotus Domino Administrator client R5.0.8 or later (the client version should match the Domino server version)
- IBM Client Access Express for Windows, Operations Navigator with the Domino plug-in for installed

2.3 iSeries server requirements

The iSeries server requires the following hardware and software to be installed.

2.3.1 Hardware requirements

Following is the minimum iSeries server hardware requirements:

- iSeries server, such as Model 270, 820, 830, 840, or IBM AS/400e with PowerPC (RISC) processor; traditional server or Domino Dedicated Server (DSD) model
- Minimum 256 MB of memory, 512 MB or more recommended
- Minimum 750 MB disk space, 1 GB or more recommended

For more accurate information about processor requirements, number of disk arms recommended, etc., refer to 2.8, “Performance and sizing considerations” on page 58.

Note: Although Domino will run on any RISC-based iSeries or AS/400 server with the supported operating system and have the available capacity to support, there are price/performance and response time advantages in using the newest iSeries models.

2.3.2 Software requirements

The minimum iSeries server software requirements include:

- OS/400 V4R5 or higher (also depends on your iSeries server model)
- TCP/IP Connectivity Utilities for AS/400
- Lotus Domino Server for iSeries R5.0.8 or later

Important: The incremental installer from pre-R5.0.8 does not include iNotes Web Access. You must install or upgrade from Domino 5.0.8 full installation media. See 2.6.1, “Upgrading from a pre-R5.0.8 Domino server” on page 52.

- (optional) OS/400 Option 12, Host Servers: For easier management of Domino and iSeries server in a graphical user interface using Operations Navigator

- (optional) Client Access Express for Windows: For easier management of Domino and the iSeries server in a graphical user interface using Operations Navigator
- Prerequisite PTFs for the specific OS/400 version:
  - ***V4R5***
    - Make sure the latest cumulative PTF package is installed.
    - For Domino R5.0.9, at least cumulative PTF C0294450 and the group PTFs listed in Table 2-1, if using other Domino functions, are required.

Table 2-1 Additional OS/400 V4R5 PTFs required if using other Domino functions

Additional group PTFs	Other Domino functions
Latest DB2 group PTF SF99105	Moving data between Domino and DB2 UDB for iSeries
Latest Java group PTF SF99068	All Java related features, such as Sametime integration
Latest BRMS group PTF SF99077	Using Backup Recovery and Media Service for iSeries, for example, use BRMS for online Domino backup

  - ***V5R1***
    - In addition to the latest V5R1 cumulative PTF package, you need the additional PTFs listed in Table 2-2.

Table 2-2 Additional PTFs required for OS/400 V5R1

Product ID	PTF number	Description	Available on cumulative PTF package
5722-999	MF27185	LIC - COMM SOCKETS DOMINO SERVER NOT RESPONDING Err EWOULDBLOCK is received by the application after ADDLEISVR command.	N/A
5722-SS1	SI02083	Cumulative fixes to QYPPRT370 *SRVPGM, including: C2M1212 message after C++ exception.	N/A

    - Additional PTFs are required for other Domino functions listed in Table 2-3.

Table 2-3 Additional V5R1 PTFs required if using other Domino functions

Additional PTFs	Other Domino functions
Client Access Service Pack2 SI01907 (comes with the latest cumulative PTF)	EZ Setup and Client Access Express for Windows
Latest BRMS group PTF SF99078	Using Backup Recovery and Media Service for iSeries, for example, use BRMS for online Domino backup and incremental Domino database backup

- Additional PTFs as specified in Lotus Domino Server release notes

  More up-to-date information about prerequisite PTFs is listed on the Domino for iSeries home page at: `http://www.ibm.com/servers/eserver/iseries/domino/support`
- From a license perspective, you also need iNotes Client Access License (CAL) or a Notes client license

2.4 Setting up iNotes Web Access on the Domino server

iNotes Web Access comes standard as a part of the Lotus Domino Server R5.0.8 or later. You do not need to install it separately. The following list gives an overview of the steps required to set up iNotes Web Access:

1. Enable HTTP and Domino Off-Line Services (DOLS).
2. Update the Domino server document for HTTP and DOLS configurations.
3. Register new users or upgrade existing users' mail databases using the iNotes Web Access mail template.
4. If you plan to provide offline access to the users, you need to configure Domino Off-line Services for offline support and for synchronizing between offline databases on the local workstation and online databases on the Domino server.
5. Set up the iNotes Web Access Domino server configuration document to specify other functions for the end users.

Some customers will use a newly dedicated Domino partitioned server for their iNotes Web Access clients, while other customers will deploy iNotes Web Access clients on their existing Domino servers. For information on sizing a new iSeries server or an existing server, see 2.8, "Performance and sizing considerations" on page 58.

2.4.1 Enabling HTTP and Domino Off-Line Services

To configure a new Domino server or change an existing Domino server on the iSeries server to support iNotes Web Access, you may use one of the following methods:

- From Operations Navigator or Web-based configuration
- From a 5250 emulation screen using an OS/400 CL command

For more details about configuring a new Domino server, please refer to *Lotus Domino for AS/400 R5: Implementation*, SG24-5592.

Configuring a new Domino server for iNotes Web Access

To configure a new Domino server to support iNotes Web Access, you have to enable an HTTP service on the Domino server. If you plan to deploy offline support for the end users, you also need to enable Domino Off-Line Services.

Note: You need to have the Domino plug-in for Operations Navigator installed in order to use Operations Navigator to manage Domino servers. Please refer to *Lotus Domino for AS/400 R5: Implementation*, SG24-5592, for information on how to install the Domino plug-in for Operations Navigator.

Configuring a new Domino server using a graphical user interface

Perform the following steps to configure a new Domino server using Operations Navigator:

1. From Operations Navigator, expand your iSeries server on the left pane under **Network -> Servers**.
2. Right-click **Domino** and select **New Domino Server** (Figure 2-1). A Web-based server configuration window appears that allows you to configure a new Domino server.

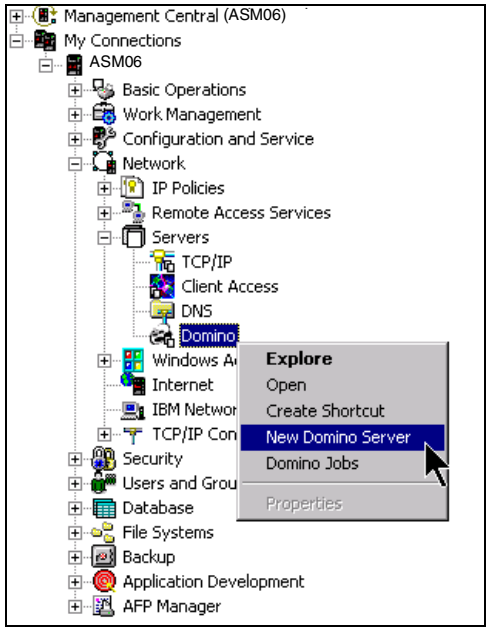


Figure 2-1 Configuring a new Domino server using Operations Navigator

3. Enable HTTP and DOLS as shown in Figure 2-2.

Figure 2-2 Enabling HTTP service and DOLS using a Web-based configuration

Configuring a new Domino server using the CFGDOMSVR CL command

Perform the following steps to configure a new Domino server using the OS/400 Configure Domino Server (CFGDOMSVR) CL command.

1. From a 5250 session, type the `CFGDOMSVR` command and press F4 for prompting. Specify `*HTTP` in the Web browser field (Figure 2-3).

```
                    Configure Domino Server (CFGDOMSVR)

Type choices, press Enter.

Administrator:
  Last name  . . . . . . . . . . > Admin
  First name . . . . . . . . . . > iNotes
  Middle initial . . . . . .                Name, *GEN
  Password . . . . . . . . . .
  Minimum password length  . . .   8        0-31
  Internet password  . . . . . .   *NONE
Time zone  . . . . . . . . . . . > CST       GMT,EST,CST,MST,PST,CET ...
Daylight savings time  . . . . .   *YES       *YES, *NO
Web browsers . . . . . . . . . . > *HTTP     Name, *NONE, *ALL, *HTTP...

Internet mail packages . . . . .   *NONE      *NONE,*ALL,*IMAP,*POP3 ...
              + for more values
SMTP services  . . . . . . . . .   *DOMINO    *DOMINO, *MSF

                                                                    More...
F3=Exit   F4=Prompt   F5=Refresh   F10=Additional parameters   F12=Cancel
F13=How to use this display        F24=More keys
```

Figure 2-3 Enabling the HTTP service using the CFGDOMSVR command

2. Press F10 for additional parameters. Then page down to the bottom of the page, and change the Allow Domino Off Line Services field to *YES (Figure 2-4).

```
                    Configure Domino Server (CFGDOMSVR)

Type choices, press Enter.

Allow Domino Off Line Services   > *YES       *YES, *NO


F24=More keys
```

Figure 2-4 Enabling DOLS using CFGDOMSVR command

Changing an existing Domino server to support iNotes Web Access

For an existing Domino server, you must change the Domino server configuration to enable HTTP service and DOLS by either using Operations Navigator or the Change Domino Server (CHGDOMSVR) CL command.

Changing an existing Domino server using a graphical user interface

Perform the following steps to change an existing Domino server using Operations Navigator:

1. From Operations Navigator, expand your iSeries server on the left pane under **Network -> Servers-> Domino**.
2. Right-click the **Domino** server to be used for iNotes Web Access, and select **Properties**. The properties display appears as shown in Figure 2-5.

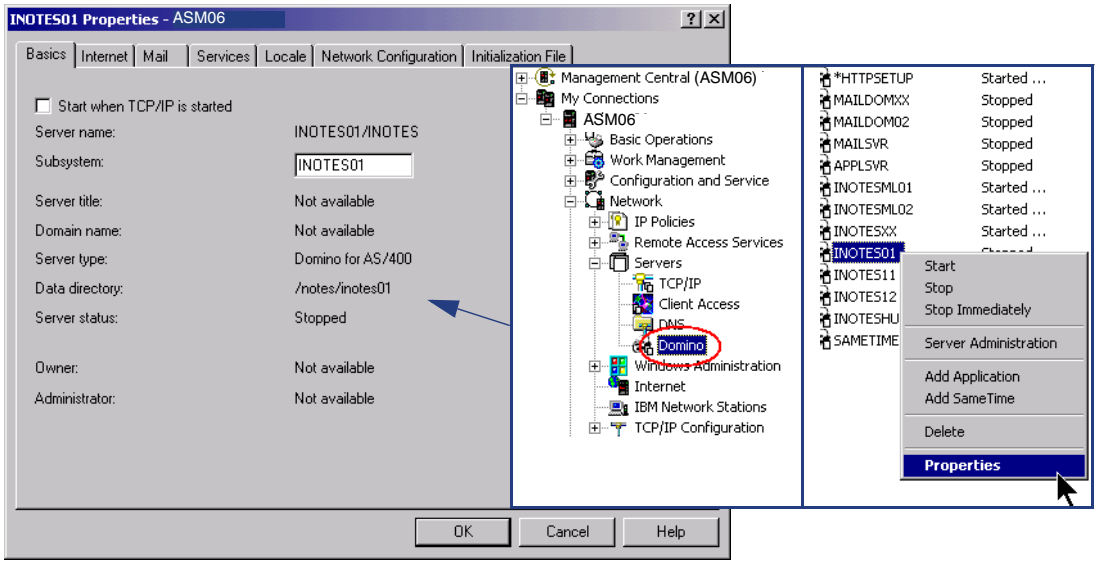


Figure 2-5 Changing the existing Domino server properties

3. Click the **Internet** tab, and enable Web browser access. We selected the Hypertext Transfer protocol (HTTP) option in our example. Then click the **Services** tab and select **Domino Off-Line Services** (Figure 2-6).

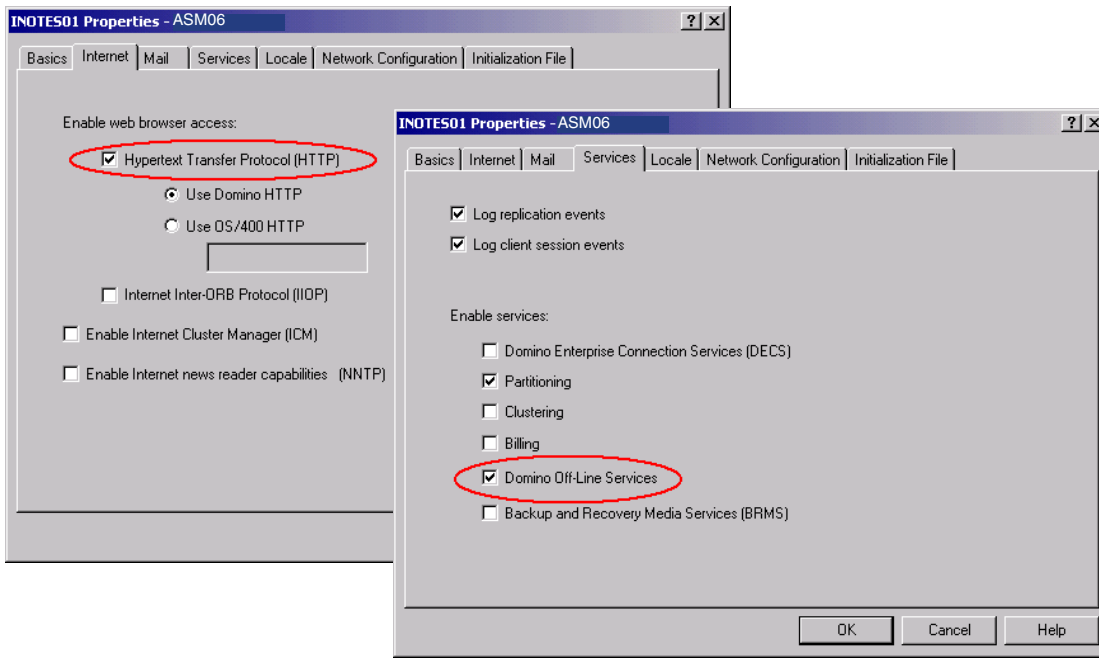


Figure 2-6 Enabling HTTP service and DOLS using Operations Navigator

Changing an existing Domino server using CHGDOMSVR

Perform the following steps to change an existing Domino server using the OS/400 Change Domino Server (CHGDOMSVR) CL command:

1. From a 5250 session, type the `CHGDOMSVR` command and press F4 for prompting. Change the Web Browsers field to `*HTTP` (Figure 2-7).

```
                      Change Domino Server (CHGDOMSVR)

Type choices, press Enter.

Server name  . . . . . > INOTES01


Additional server ID:
  ID file's password . . . . . .   *NONE
Time zone  . . . . . .   CST           *SAME, GMT, EST, CST, MST ...
Daylight savings time  . . . . .   *YES          *SAME, *YES, *NO
Web browsers . . . . . .   *HTTP         Name, *SAME, *NONE, *ALL...

Internet mail packages . . . . .   *NONE         *SAME,*NONE,*ALL,*IMAP ...
              + for more values
SMTP services  . . . . . .   *SAME         *SAME, *DOMINO, *MSF
Directory services . . . . . .   *NONE         *SAME, *NONE, *ALL, *LDAP...

News readers . . . . . .   *NONE         *SAME, *NONE, *NNTP
                                                                    More...
F3=Exit   F4=Prompt   F5=Refresh   F10=Additional parameters   F12=Cancel
F13=How to use this display        F24=More keys
```

Figure 2-7 Enabling the HTTP service using the CHGDOMSVR command

2. Press F10 for additional parameters. Then page down to the bottom of the page and change the Allow Domino Off Line Services field to *YES (Figure 2-8).

```
                      Change Domino Server (CHGDOMSVR)

Type choices, press Enter.


                           Additional Parameters

Start when TCP/IP started  . . .   *NO           *SAME, *YES, *NO
Allow Domino Off Line Services     *YES          *SAME, *YES, *NO
```

Figure 2-8 Enabling DOLS using the CHGDOMSVR command

2.4.2 Domino server configuration

Configuring the Domino server on iSeries to enable iNotes Web Access is similar to doing the same task on other platforms. For more information, please refer to Chapter 3, “Deployment”, in *iNotes Web Access Deployment and Administration*, SG24-6518, for more information.

This section describes the configuration requirements on the Domino server.

Verifying the Domino Off-Line Services setting

You must perform this step if you plan to provide offline access to your end users.

Since DOLS is tied to the Domino HTTP server task as a Domino server HTTP API extension, there is no separate DOLS task in the Domino server. For example, you *cannot* issue a **load DOLS** command to start DOLS or execute a **show tasks** command from the Domino server console to see if DOLS is running. It will be loaded or ended with the Domino HTTP task.

On the iSeries server, using the CFGDOMSVR DOLS(*YES) or CHGDOMSVR DOLS(*YES) CL commands when creating or changing a Domino server configures DOLS automatically. There are two checks to verify that DOLS is configured and running on the Domino server:

1. Verify the Domino server document has been updated with the DSAPI filter of **LIBDOLEXTN.SRVPGM** (Figure 2-9).

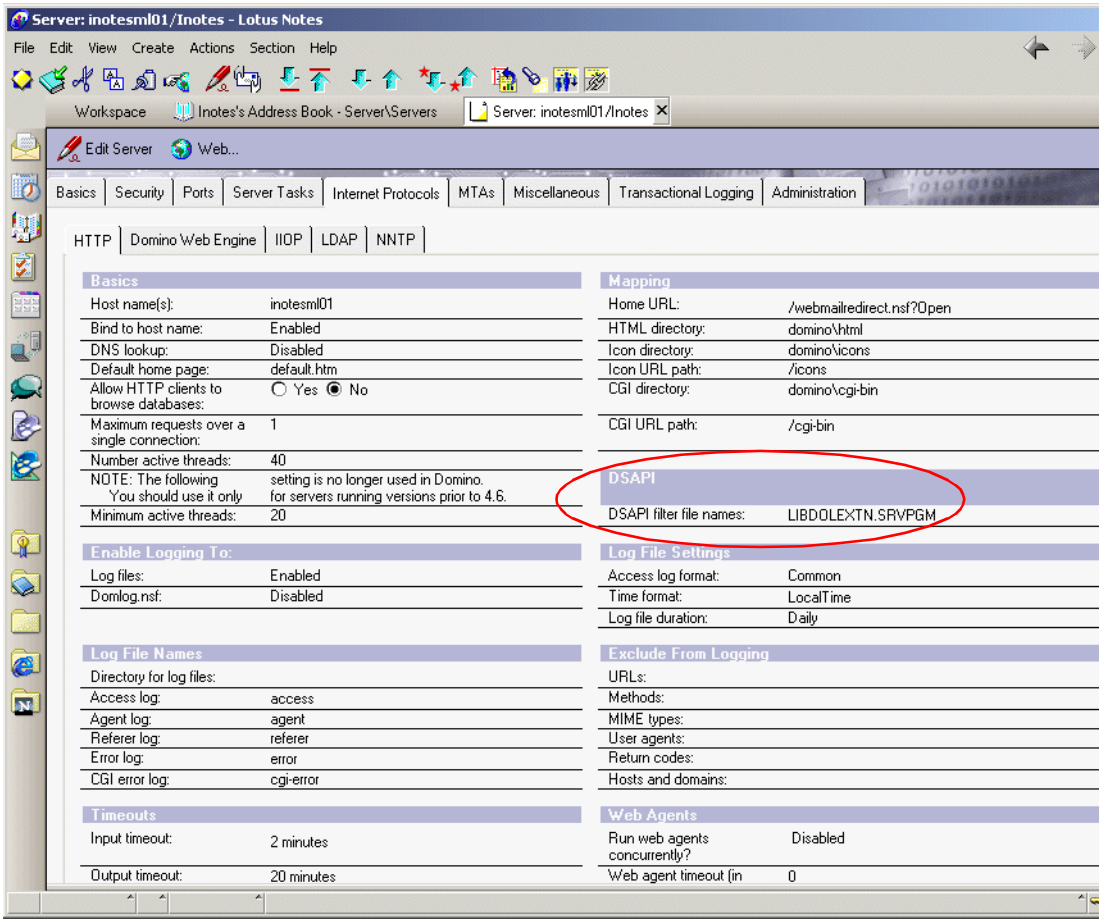


Figure 2-9 DOLS DSAPI filter in the Domino server document

> **Note:** The DOLS DSAPI filter *must* be listed first. If there are other DSAPI filters already being used, such as WebSphere Application server, they must be listed after the DOLS DSAPI filter.
>
> By default, the CHGDOMSVR appends the filter to the end of the list. If other filters are already loaded, you must manually move LIBDOLEXTN.SRVPGM to be the first one. Otherwise, DOLS will not load properly.

2. Check the messages on the Domino server console when the HTTP server task starts to make sure the DOLS extension is loaded (Figure 2-10).

```
                          Display Domino Console

Previous subcommands and messages:
  11/20/2001 11:28:41 PM  Agent Manager started
  11/20/2001 11:28:42 PM  AMgr: Executive '2' started
  11/20/2001 11:28:42 PM  AMgr: Executive '1' started
  11/20/2001 11:28:46 PM  inotesml01/Inotes is the Administration Server of
  the Domino Directory.
  11/20/2001 11:28:46 PM  Administration Process started
  11/20/2001 11:28:51 PM  Schedule Manager started
  11/20/2001 11:28:52 PM  SchedMgr: Validating Schedule Database
  11/20/2001 11:28:53 PM  SchedMgr: Done validating Schedule Database
  11/20/2001 11:28:56 PM  Calendar Connector started
  11/20/2001 11:29:02 PM  Event Monitor started
  11/20/2001 11:29:08 PM  JVM: Java Virtual Machine initialized.
  11/20/2001 11:29:08 PM  Java Servlet Manager initialized

  11/20/2001 11:29:08 PM  Domino Off-Line Services HTTP extension (iNotes Relea
  se 1.05) loaded.
  11/20/2001 11:29:09 PM  HTTP Web Server started

F3=Exit   F5=Refresh   F6=Print
F17=Top   F18=Bottom   F21=Command line
```

Figure 2-10 DOLS HTTP extension loaded message

Configuring the Domino HTTP server

iNotes Web Access clients use the HTTP Internet protocol versus the Notes Remote Procedure Call (NRPC) used by the Lotus Notes client. You can either use the OS/400 HTTP server (original version) or the Domino HTTP server to serve the iNotes Web Access clients. This section explains how to configure the Domino HTTP server to serve iNotes Web Access clients.

Attention: If you plan to use the offline support (Domino Off-Line Services) for your iNotes Web Access users, you must use the Domino HTTP server. DOLS is only supported by the Domino HTTP server. The OS/400 HTTP server does not support DOLS.

Enabling an HTTP service, as well as SSL for iNotes Web Access, is similar to enabling HTTP for other Domino Web-based mail and applications. You can use the Domino Administrator client and go to the Configuration tab to configure the Domino server document of iNotes Web Access server. For more information on SSL, refer to Chapter 3, “Security” on page 75.

For basic configuration of iNotes Web Access, you must consider the following fields in the Domino server document in Domino Directory:

- **Fully qualified Internet host name**: Specify the fully qualified Internet host name of the Domino server instead of the Internet short name or Domino server name. The iSeries server must be able to resolve this host name to its TCP/IP address as well (Figure 2-11).

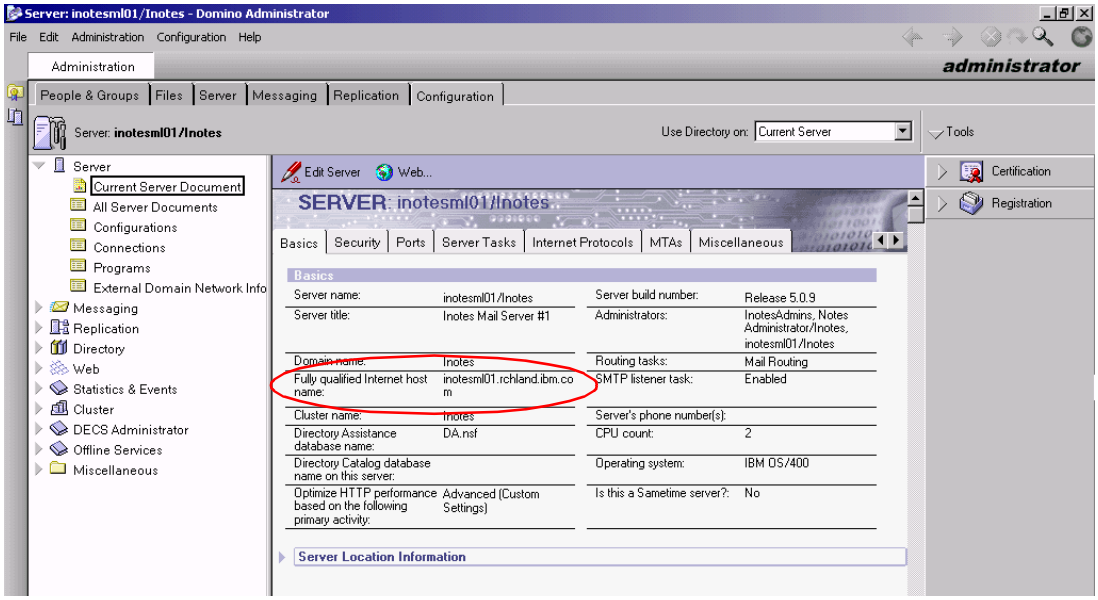


Figure 2-11 Specifying the fully qualified Internet host name

- **HTTP port number**: If you have multiple HTTP servers sharing the same IP address on the iSeries server, you must specify a different port number for each of the HTTP servers. Also make sure that you enable the TCP/IP port for HTTP here (Figure 2-12).

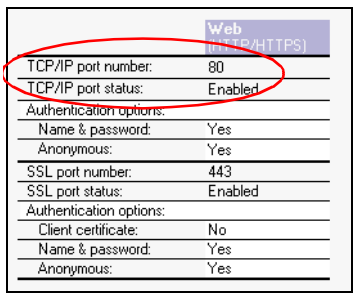


Figure 2-12 Specifying the TCP/IP port number for HTTP or SSL

- **Bind to hostname**: It is very likely for the iSeries server to have multiple Domino partitioned servers running on the same system. If you run multiple Domino servers or enable the OS/400 HTTP server, make sure that you bind each Domino server to its own IP address (Figure 2-13).

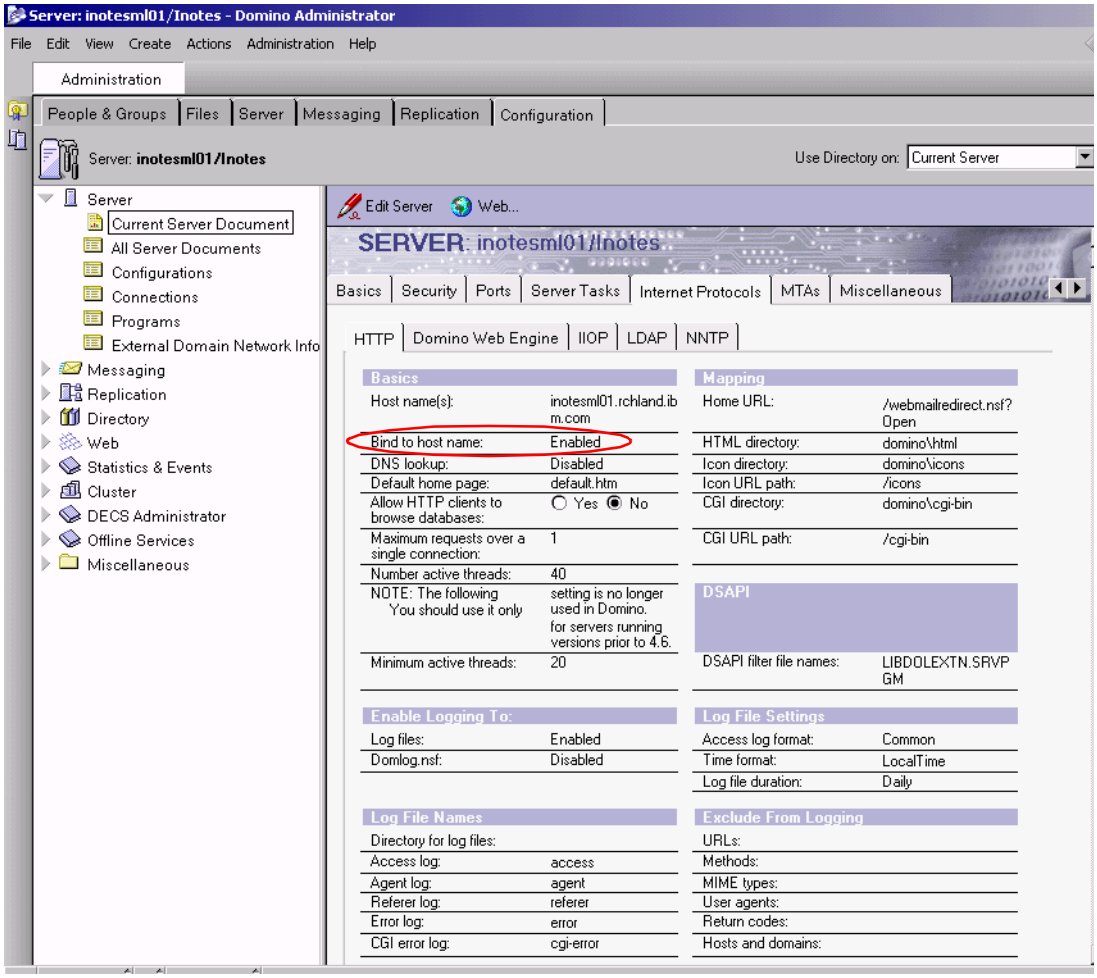


Figure 2-13 Specifying Bind to host name as enabled

- **Session authentication**: In the current releases of the Domino server, R5.0.8 and R5.0.9, DOLS does not support multi-server session authentication for domain-wide Web single sign-on (Web SSO). If you plan to deploy offline access, you must set session authentication to either **disable** (default value) for basic name-and-password authentication or **Single Server** for session-based name-and-password authentication (Figure 2-14).

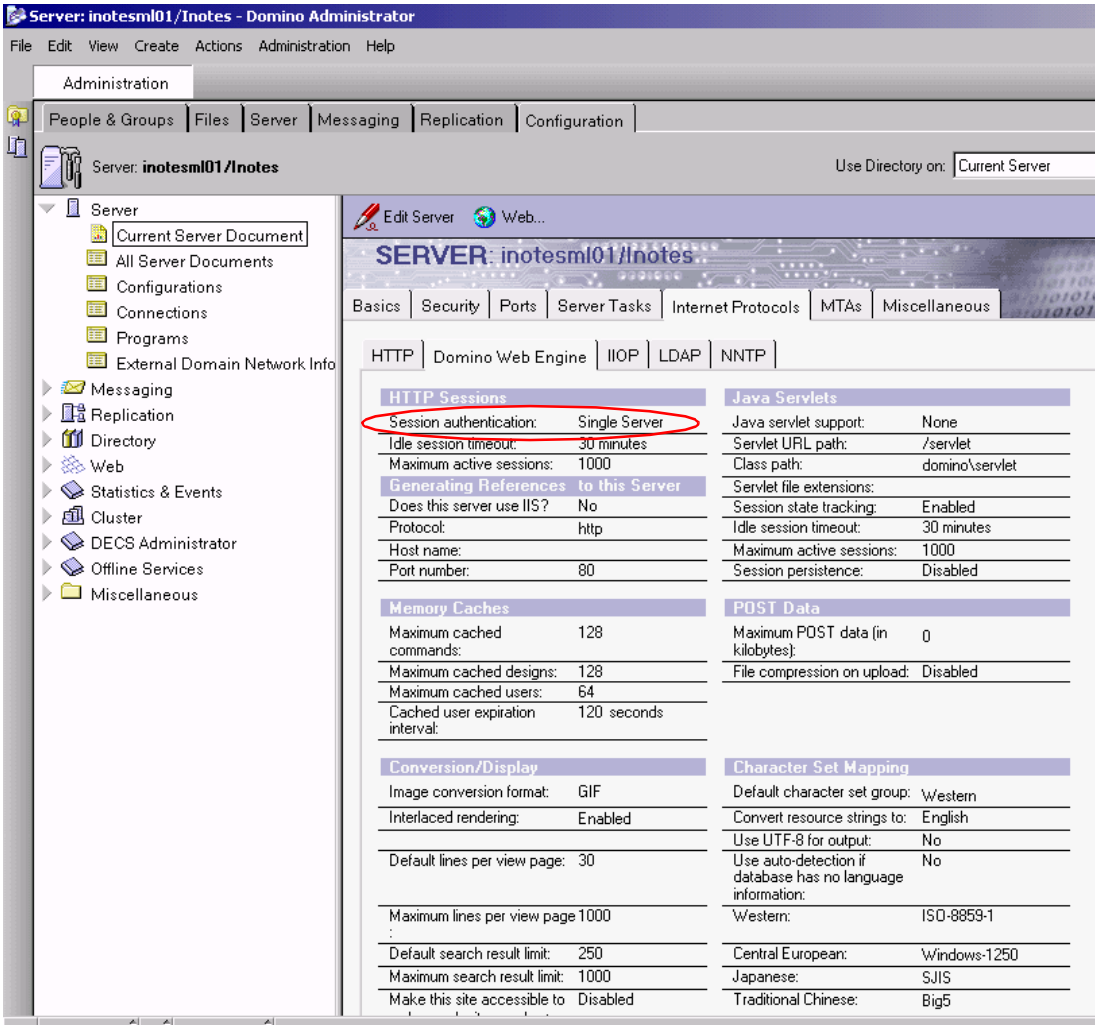


Figure 2-14 Specifying session authentication

Restriction: In the current releases of Domino, R5.0.8 and R5.0.9, DOLS does not support multi-server session authentication. You need to plan accordingly if you intend to deploy WebSphere and Domino single sign-on or Domino multi-server domain-wide authentication.

You can start, stop, and manage the Domino HTTP server by using the Domino server console commands. Table 2-4 shows some frequently used Domino server console commands including some of the new commands from the newer Domino releases. For additional information regarding HTTP settings for the Domino HTTP or Web server, please refer to the *Domino R5 Administration Help* database (help5_admin.nsf).

Table 2-4 Domino R5 server console HTTP commands

Domino HTTP console command	Description
Load HTTP	Manually start the Domino HTTP server task.
Tell HTTP QUIT	Manually stop the Domino HTTP server task.

Domino HTTP console command	Description
Tell HTTP Restart	This command results in the HTTP task shutting down, reloading, and refreshing certain Web server settings. It is the equivalent to issuing “Tell HTTP Quit” followed by “Load HTTP”. However, the downtime for the HTTP server is much shorter because it does not completely reload all HTTP memory. This command deletes the in-memory page and user-authentication caches.
Tell HTTP Show Thread State	Gathers information about the status of each worker thread.
Tell HTTP Show Users	Displays authenticated users. This command can be used only if the Domino server is configured to use session-based tracking for the Web. This command shows the user name, IP address, and the time of expiration, which is 30 minutes by default. The results display only users who are authenticated; anonymous users cannot be tracked.
Tell HTTP Show File Access	Displays information about file system protection on the machine and each virtual server if configured.
Tell HTTP Show Security	Displays the current status on the use of SSL for the server and each virtual server or virtual host.
Tell HTTP Show Virtual Servers	Displays a list of all configured virtual servers or virtual hosts running on the server.

Assigning Internet passwords for each iNotes Web Access user

To access a mail database, the iNotes Web Access user must first authenticate with the Domino server. There are different options available; the most common being basic name and password authentication or session-based authentication. These require a Person document in the Domino Directory or a secondary directory configured using Directory Assistance (DA). Each Person document must contain the user name and Internet password. To set the Internet password of a Person document, perform the following steps:

1. From a Lotus Notes client, open the Domino Directory or Domino server address book.
2. Select the **People** view from the left navigation panel.
3. Locate the Person document that you want to update.
4. Click the **Edit Person** button. On the **Basics** tab, verify the value in the Internet password field. In order for a user to authenticate from a Web browser, the value cannot be blank (Figure 2-15).

   Note: Opening a Person document in the *read* mode does not show the Internet password. You must open it in *edit* mode.

5. If the Internet password field is blank, type a password and click **Save and Close**. You may notice that the password is then translated into an encrypted format.

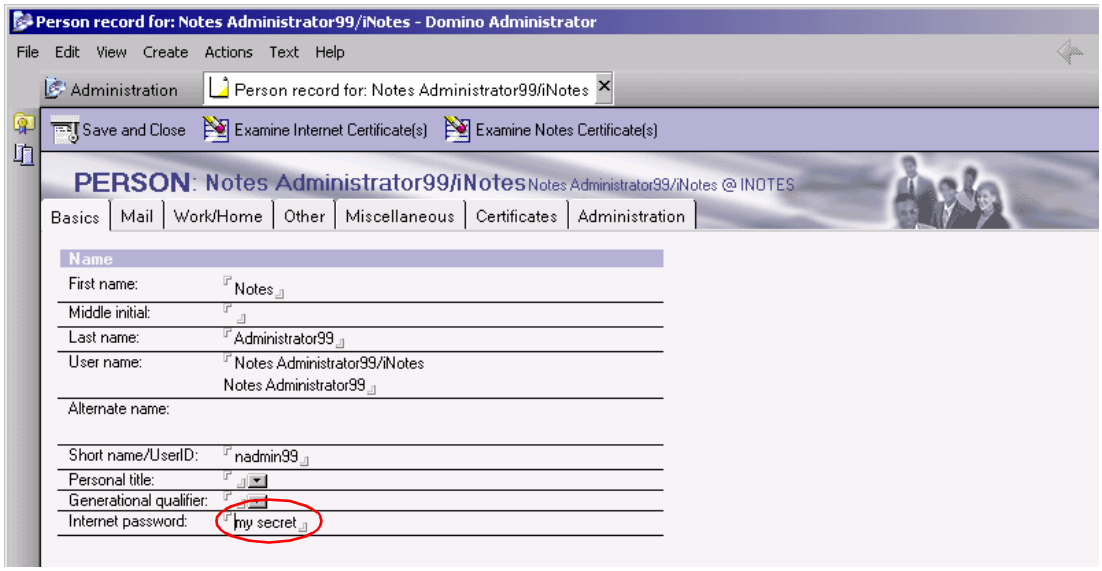


Figure 2-15 Setting the Internet password field of a Person document

By default, each user will own their mail database file and be granted Manager access, in the access control list (ACL) of that database, and Editor access, in the Maximum Internet name & password field. This is sufficient for most functions. However, creating a database full-text index, enabling Out of Office agent, and changing the Internet password functions require Designer access in the Maximum Internet name & password field.

The ACL level required for each of these functions is shown in Table 2-5.

Table 2-5 Access levels to a user's mail database

ACL access level	Maximum Internet name & password	Change Internet password available?	Out of Office agent available?
Editor	Editor	No	No
Editor	Designer	No	No
Designer	Editor	Yes	No
Designer	Designer	Yes	Yes

Note: The *Change Internet Password* option is only available for the mail database owner.

Perform the following steps to change the value of the Maximum Internet name & password access control:

1. Start the Lotus Notes client and locate your mail database icon.
2. Right-click the mail database icon and select **Database-> Access Control**.
3. Click the **Advanced** button on the left navigation panel.
4. Change the value of the Maximum Internet name & password to **Designer** by making a selection from the drop-down list (Figure 2-16).
5. Click **OK**.

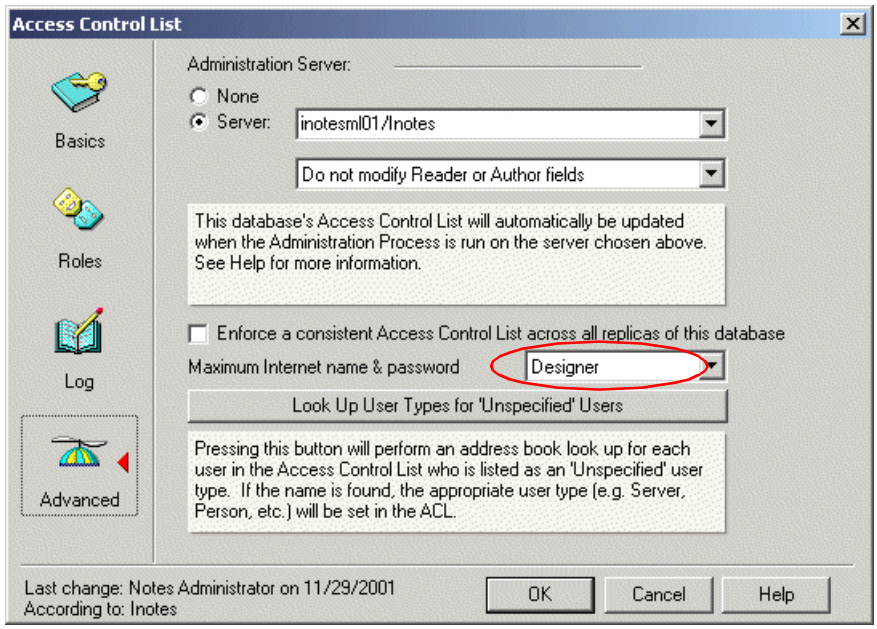


Figure 2-16 Changing the value of Maximum Internet name & password field

2.4.3 Registering new users with the new iNotes mail template

By default, Domino uses the R5 standard mail template Mail (R5.0) or StdR5Mail (mail50.ntf) when you register a new user. To register a new user with iNotes Web Access capabilities, you must use the iNotes Mail C&S template (iNotes5.ntf) instead.

Perform the following steps to register a new user and create their mail file using the iNotes Web Access template:

1. Start the Domino Administrator client, and login using the Domino server's administrator ID.
2. If you have multiple Domino partitioned servers in a Domino domain, make sure that you connect to the correct Domino server to be used for iNotes Web Access.
3. Click the **People & Groups** tab.
4. Select **Tools-> People-> Register** from the right navigation panel (Figure 2-17).

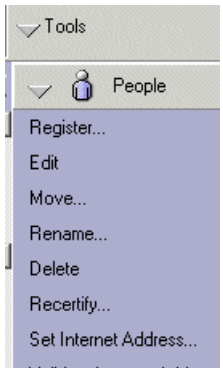


Figure 2-17 Registering a new person

5. The system then prompts you for the certifier password. Type the password and click **OK**.
6. In the Register Person -- New entry window, type the user information.

7. You need to select the **Set Internet password** check box. iNotes Web Access uses the Internet password in online and offline authentication with the Domino server. The password specified should be eight characters or longer.

> **Important:** We recommend that you set the Internet password with at least eight characters in length. If a user changes their password in offline usage and if the password is less than eight characters, an invalid password error would always appear. This happens even though the user types the password correctly because DOLS requires a password with at least eight characters. This is implemented for Internet security reasons to make it harder for an intruder to guess the user's password.

8. Click the **Advanced** check box.
9. Click the **Mail** button.
10. Select the Domino iNotes Web Access server as the Mail Server.
11. Select **iNotes Mail and C&S** (iNotes5.ntf) from the scroll-down Mail file template menu (Figure 2-18).

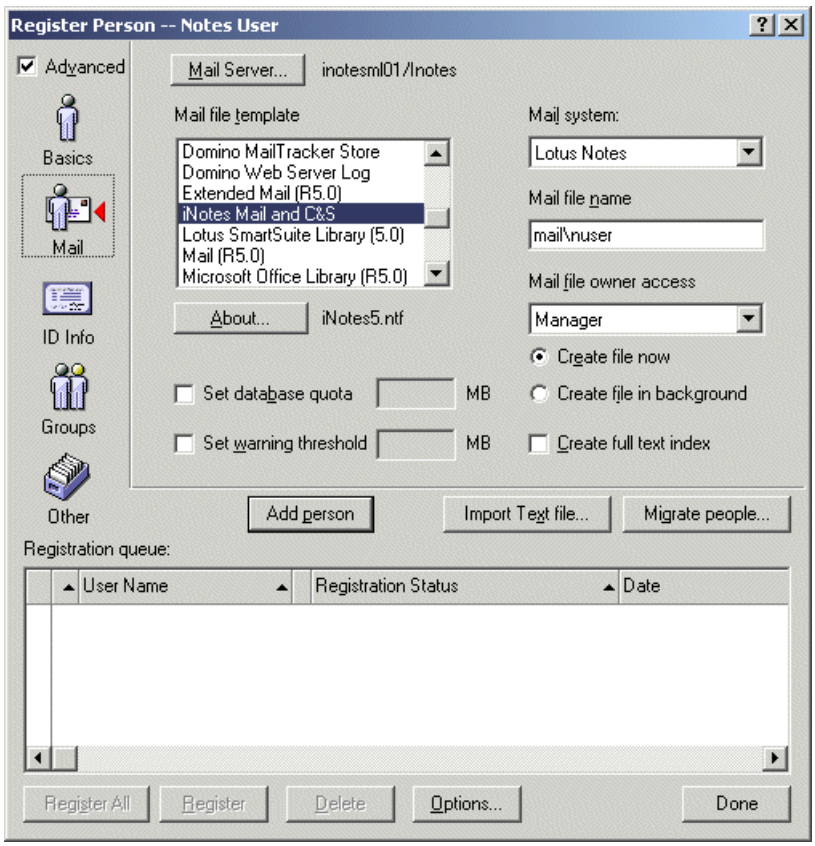


Figure 2-18 Selecting the iNotes Web Access template when registering a new user

12. Complete or verify the other fields as necessary.
13. Click the **Add Person** button. The new user will be listed in the Registration queue (lower) panel.
14. Click the **Register** button.

15. After the Domino server registers the new person and creates a new mail database, a pop-up window asking if you want to register another person appears. Click **Yes** if you want to register another person. Otherwise, click **No** to end the registration process.

Registering a new user with Operations Navigator

The Domino plug-in for the Operations Navigator enables you to register new Domino users as well. The registration can be done as a part of creating a new OS/400 user or changing an existing OS/400 user. The benefit of using this method is that you can create an OS/400 user profile, create their entry in OS/400 Directory Entry, and create a Domino user ID for this user all at the same time. However, you *cannot* specify an Internet Password or iNotes Web Access mail template there. If you use Operations Navigator to register a new Domino user, you have to set the Internet Password and convert the mail template for that user's mail database later.

Note: Before you register a new Domino user using Operations Navigator, you need to have the Domino Administrator client installed and configured with the proper Domino server administrator ID available on the workstation.

Perform the following steps to register a new OS/400 user and a new Domino user:

1. Start Operations Navigator and sign on with a security officer or security administrator user ID with an entry in OS/400 Directory Entry.
2. Expand your iSeries server on the left pane to **Users and Group**. Then right-click and select **New User** (Figure 2-19).

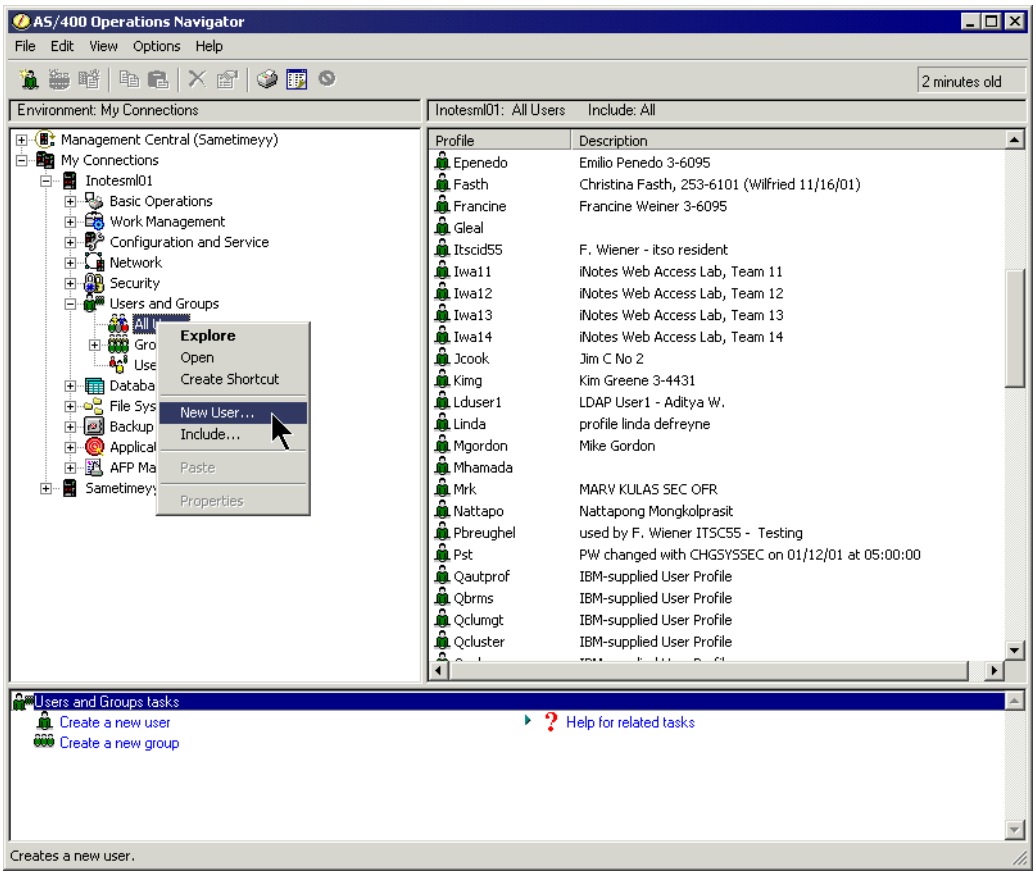


Figure 2-19 Registering a new user using Operations Navigator

3. On the New User window, enter the required information for the OS/400 user and click the **Networks** button (Figure 2-20).

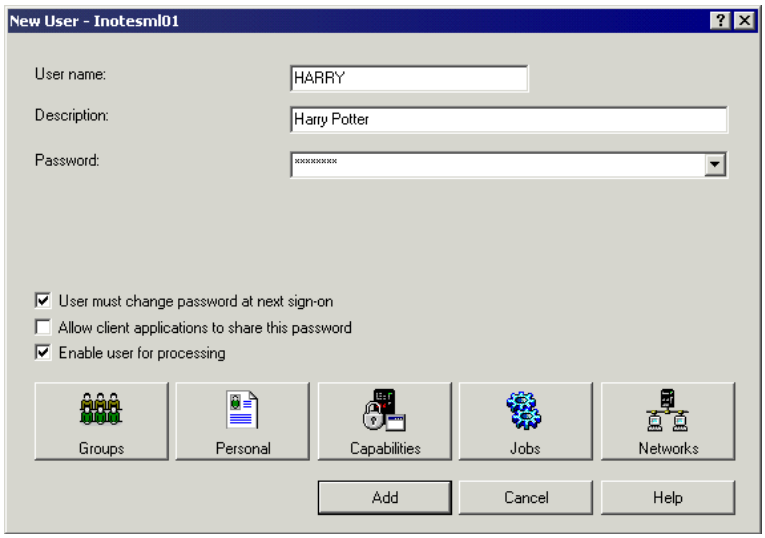


Figure 2-20 Entering the required OS/400 user ID information

4. Select the **Domino Registration** tab and a pop-up window appears that asks for a password for the Domino Administrator ID. Type the password here, and select the Domino server to register a new Domino user into. Then click **Add**.
5. Type the required information for the new Domino user and click **OK** (Figure 2-21).

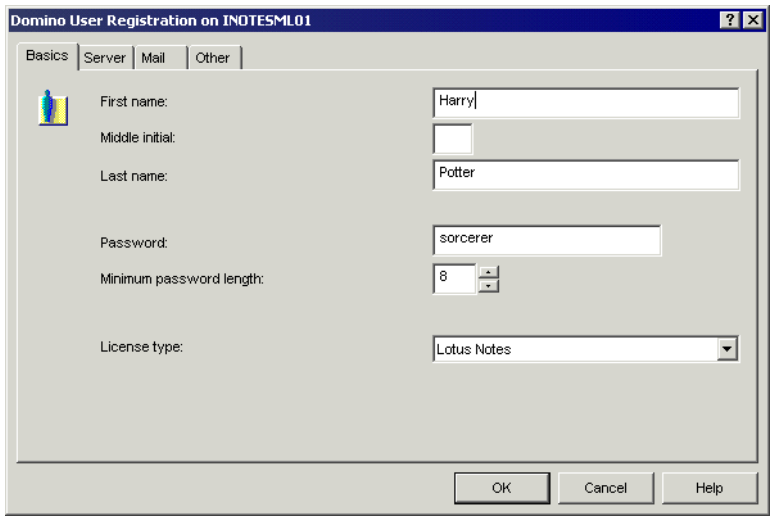


Figure 2-21 Entering the required Domino user information

6. A new OS/400 user ID is created and a new user is registered on the Domino server with the standard R5 mail template and no Internet password. You will need to add the Internet password and replace or convert the mail template design later.

2.4.4 Migrating existing users' mail databases

Migrating existing Domino users means replacing the design of the users' mail databases with the new iNotes Web Access template. The iNotes Web Access mail template description is *iNotes Mail C&S*, with a filename of iNotes5.ntf. This mail template is the superset of the previous standard R5 mail template and R5 WebMail template, which means the users can also access their mail file from a Lotus Notes client or a WebMail client.

When you upgrade existing users' mail databases to the iNotes5.ntf template, you can upgrade one mail database at a time or use the mail conversion utility to automate upgrading the design.

We recommend upgrading users' mail files when they are not accessing them, for example, in the early mornings or over a weekend. You may plan a schedule downtime for upgrading users' mail template and notify users that their mail files will be unavailable during the upgrade.

Mail template design replace considerations

Check the following considerations before you upgrade users' database mail template.

A mix of pre-R5.0.9 Notes clients and iNotes Web Access

When deploying iNotes Web Access clients on the Domino R5.0.9 server, Notes clients with different R5 releases can access the Domino R5.0.9 server. Both the iNotes Web Access client and the Lotus Notes client can use the same mail database with the iNotes5.ntf template.

A mix of pre-R5.0.8 Notes clients and iNotes Web Access clients is supported by the Domino R5.0.9 server. The iNotes Web Access template is compatible with earlier releases of the Notes client. In an environment that uses the iNotes Web Access template, Notes client users will continue to see the standard Notes client user interface. When using the iNotes Web Access client, users will see the iNotes Web Access user interface.

Upgrading mail templates from pre-R5.0.8 to iNotes Web Access

If you plan to upgrade a mail database template that is pre-R5.0.8, you need to upgrade the database template to the standard R5 mail template (mail50.ntf) of release 5.0.8 or later first. You must do this before you upgrade the mail database template design again to the iNotes Web Access template (iNotes5.ntf).

Important: Upgrading a pre-R5.0.8 R5 mail database to iNotes5.ntf directly may corrupt the mail database.

Replica of iNotes5.ntf on multiple Domino servers

If you have a mail database on a Domino R5.0.9 server with an iNotes5.ntf template and a replica of that mail database on another pre-R5.0.8 Domino server, you must ensure that the design of that mail database is set not to replicate. A mail file with an R5.0.9 design on a pre-R5.0.8 server does not work properly. You need to ensure that the older pre-R5.0.8 design does not overwrite the R5.0.9 design on the R5.0.9 server.

To prevent the mail templates of the two replicas from replicating, perform the following steps for each mail database:

1. Open the replica mail database.
2. Select **File-> Replication-> Settings**.
3. Click the **Advanced** tab.

4. Under “Replicate incoming,” deselect **Forms, views, etc.** and **Agents**.
5. Click **OK**.

Make sure you do this for each replica. This procedure does not work for clustered servers and databases; cluster replication ignores selective replication.

Upgrading the mail template

Perform the following steps to upgrade the mail template:

1. If users have customized their mail files, instruct them to back up these customizations. For example, users can make a new copy of their mail file that includes only the database design. This allows users to reapply changes they made to their Notes R5 mail database to the new iNotes Web Access mail template (Figure 2-22).

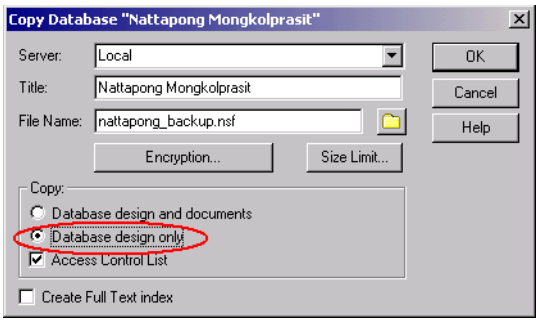


Figure 2-22 Creating a backup copy of the design mail database

2. Make sure that you have started the Domino server on which you want to upgrade the mail database, and go to the Domino server console.

   You can access the Domino server console on the iSeries server by using:

   – Work with Domino Servers (`WRKDOMSVR`) CL command, and selecting option **8**
   – Work with Domino Console (`WRKDOMCSL` *`Dominoservername`*) CL command to access to the Domino console of that server directly
   – A Web browser or the Domino Administrator client

3. To prevent Domino from routing mail files, and therefore, accessing or making any changes to mail databases while they are being upgraded, shut down the router task by typing the following command in the Domino server console:

   ```
   tell router quit
   ```

   The pending mail is stored in MAIL.BOX while you upgrade the mail databases. Once you upgrade the mail databases and load the router task again, the router processes and delivers the mail in MAIL.BOX.

4. Load the mail conversion utility. Type:

   ```
   load convert [arguments]
   ```

   You may use the mail conversion utility (convert) from the Domino server console or use the replace design utility from the Notes client to replace the mail template. However, Lotus recommends that you use the mail conversion utility from the Domino server console instead of using replace design.

   The mail conversion utility command uses arguments to specify options. It has the form:

   ```
   load convert [-r] mailfilepath existingtemplatename newtemplatefilename
   ```

Here *-r* converts mail files to subdirectories of the specified directory. Refer to the section “Upgrading user’s mail files”, in the Domino documentation *Moving to Notes and Domino Release 5* for more information.

The following examples show various ways that you can use the mail conversion utility from the Domino server console:

– **Example 1**: Convert only a mail database, user.nsf, from the standard R5 mail template to the iNotes Web Access mail template. “StdR50Mail” is the design name of standard R5 mail.

```
load convert mail/user.nsf StdR50Mail iNotes5.ntf
```

– **Example 2**: Convert all databases in the mail/testgroup directory with any database template to iNotes Web Access mail template:

```
load convert mail/testgroup/*.nsf * iNotes5.ntf
```

– **Example 3**: Convert all databases under the mail directory and all of its sub-directories with any database template to the iNotes Web Access mail template. The “-r” switch means recursively replace all files in the subdirectories.

```
load convert -r mail/*.nsf * iNotes5.ntf
```

See Figure 2-23.

```
> load convert mail/nattapong.nsf * iNotes5.ntf


11/19/2001 01:08:02 PM  Mail Conversion Utility starting
11/19/2001 01:08:02 PM  Mail Convert: Started replacing design template '*'
with 'iNotes5' in 'mail/nattapong.nsf'
11/19/2001 01:08:02 PM  Deleting '(openinotesAgent)' from database 'Nattapong
Mongkolprasit'

11/19/2001 01:08:02 PM  Mail Convert: Finished replacing design template in
'mail/nattapong.nsf'
11/19/2001 01:08:03 PM  Mail Conversion Utility shutdown
```

Figure 2-23 Converting a mail database to use the iNotes Web Access template

5. Once you finish upgrading mail databases to the iNotes Web Access template on the Domino server, load the router task. Type:

```
load router
```

6. Notify users that you upgraded their mail databases to the iNotes Web Access design.

Note: The iNotes Web Access mail template, iNotes5.ntf, also supports accessing from WebMail and Lotus Notes clients for the same user. Refer to 2.6.6, “Users accessing their mail database from different types of clients” on page 53, for details.

Replacing the design from Lotus Notes client

Replacing the mail database template design can also be done individually from the Lotus Notes client. However, it must be done from a Notes client release 5.0.8 or later.

Important: Replacing a design using pre-R5.0.8 Notes clients may result in corrupted mail databases because they do not set all the necessary database flags.

2.4.5 Configuring Domino Off-Line Services

You only need Domino Off-Line Services if you plan to provide offline access to users. If you plan to deploy only to have online access to iNotes Web Access, you do not need to install or setup DOLS on your Domino server.

Important: DOLS must be configured before iNotes Web Access client installation for offline access.

Domino Off-Line Services is an extension of the Domino Web (HTTP) server. It provides users with mobility to use mail and calendaring, as well as other Domino Web applications offline while disconnected from the Internet or intranet. It provides the installation method for clients and synchronization between the client and Domino server for disconnected use.

The DOLS administration database (dolsadmin.nsf) allows a Domino administrator to define the scope of security by an Organizational Unit – not the domain – and to define a User ID deployment policy for client downloads of the Lotus iNotes Sync Manager application. To configure DOLS, the Domino Administrator client can be used to configure the DOLS security policy document. The DOLS administration database (dolsadmin.nsf) is created as a part of the configuration of a new Domino server or when changing an existing DOMINO server with the DOLS(*YES) parameter.

Perform the following the steps to configure DOLS:

1. Start your Domino Administrator client, and select the **Configuration** tab.
2. On the left pane, expand the **Offline Services** folder and select **Security**.
3. Click the **New Security Policy** button as shown in Figure 2-24.

Note: You will see Offline Services only if you have authority specified in the ACL of the dolsadmin.nsf database. You may also perform these functions by opening the dolsadmin.nsf database directly from the Domino Administrator client or the Lotus Notes client.

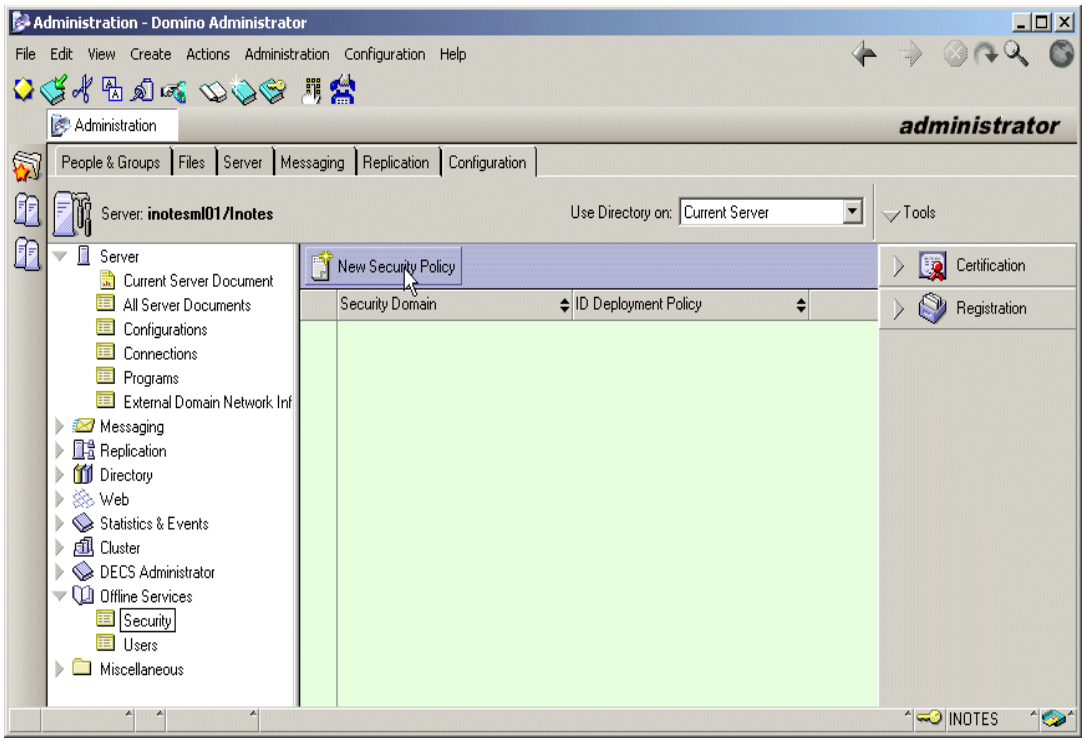


Figure 2-24 Creating a new Offline Security Policy document through the Domino Administrator client

4. On the panel as shown in Figure 2-25, specify the scope of security in the Security domain field, and choose one from the options listed in the ID deployment policy field.

> **Note:** The Security domain specified here has nothing to do with Internet domain or Domino domain. It refers to the organization unit that this policy will effect. For example, you can have a less secure policy such as “Automatically generate user IDs” for /extranet/Mycompany, and have another more secure policy such as “Prompt for ID during download” for /intranet/Mycompany for a different group of users.

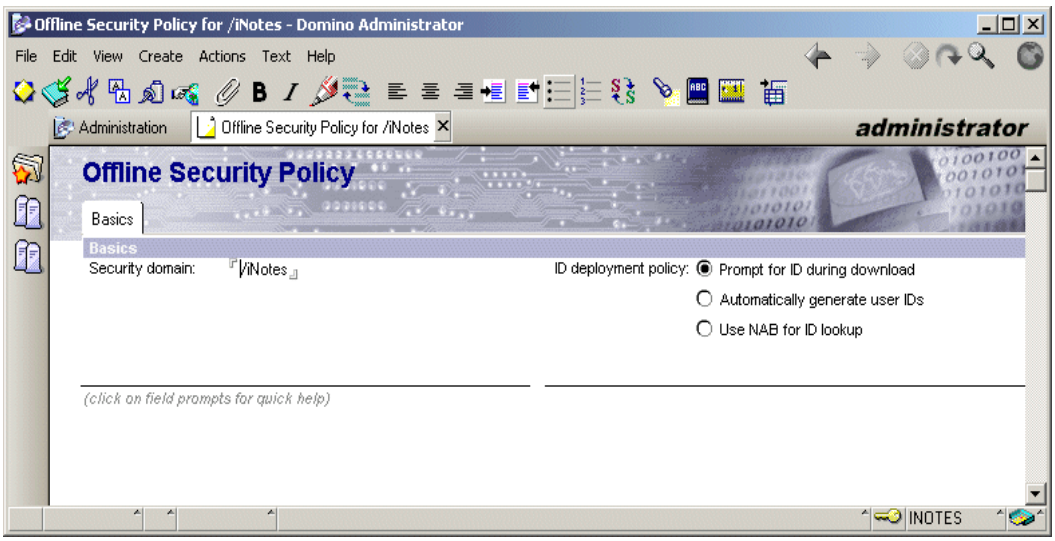


Figure 2-25 Offline Security Policy document

5. Press Esc and click **Yes** to save the document.
6. Check for the logging of the Offline database user with the Administrator client. First click the **Configuration** tab and then select **Offline Services -> Users** from the left navigation panel (Figure 2-26). This view contains a log of the synchronization of subscriptions done by each user in the past.

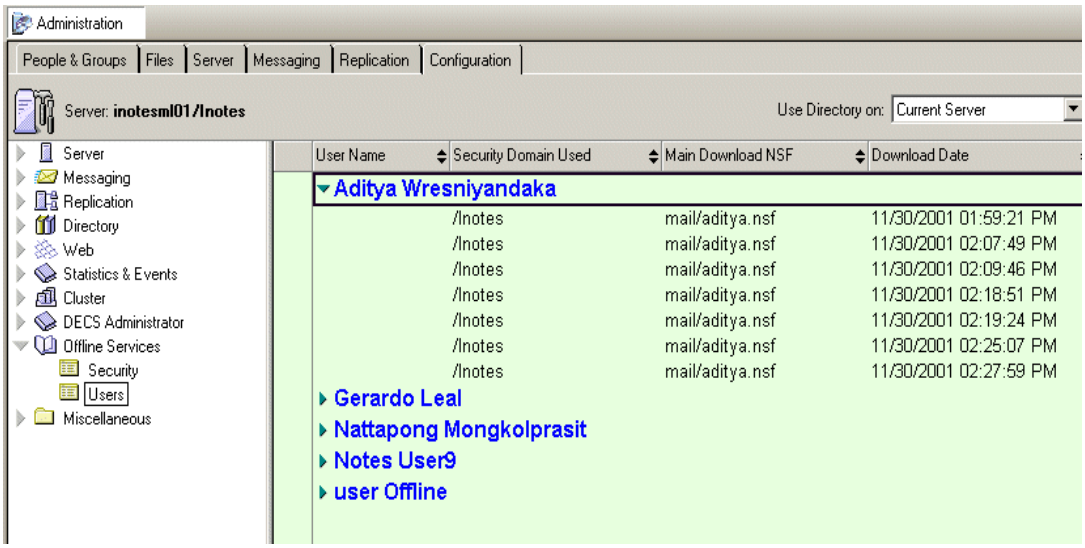


Figure 2-26 Offline subscription log users view through Domino Administrator client

2.4.6 Enabling other functions in iNotes Web Access

You may want to enable or disable some functions for iNotes Web Access that are available to users to control or manage disk space, security, or performance. For example, you can save disk space by disabling archiving or full-text indexing on the Domino server. You can improve performance by specifying a long alarm polling time. You can also set the minimum time interval that must lapse before users can poll for new mail. To control the opening view, you can specify a Welcome page URL for all users.

To do this, you can use a configuration document to specify these values:

1. From the Domino Administrator client, click the **Configuration** tab and expand the **Messaging** section.
2. Click **Configurations**.
3. Select the Configuration Settings document for the iNotes Web Access Domino servers, and click **Edit Configuration**. If this is the new configuration, click **Add Configuration**. In case you have multiple iNotes Web Access Domino servers in your domain, you may create a domain wide or specify the group of Domino servers that this configuration will affect (Figure 2-27).

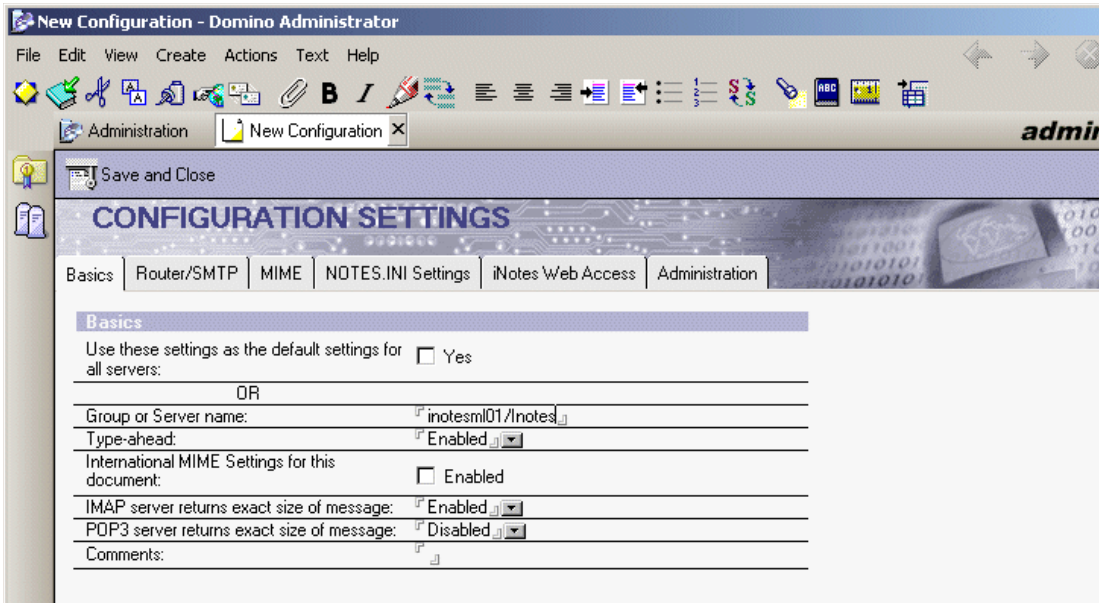


Figure 2-27 Specifying the group or Domino server names in the Configuration settings document

4. Click the **iNotes Web Access** tab. A list of parameters with default values is displayed as shown in Figure 2-28.

> **Note:** The configuration settings for iNotes Web Access displayed in Figure 2-28 are from a R5.0.9 Domino server. You do not see all of these configuration settings on a Domino R5.0.8 server.

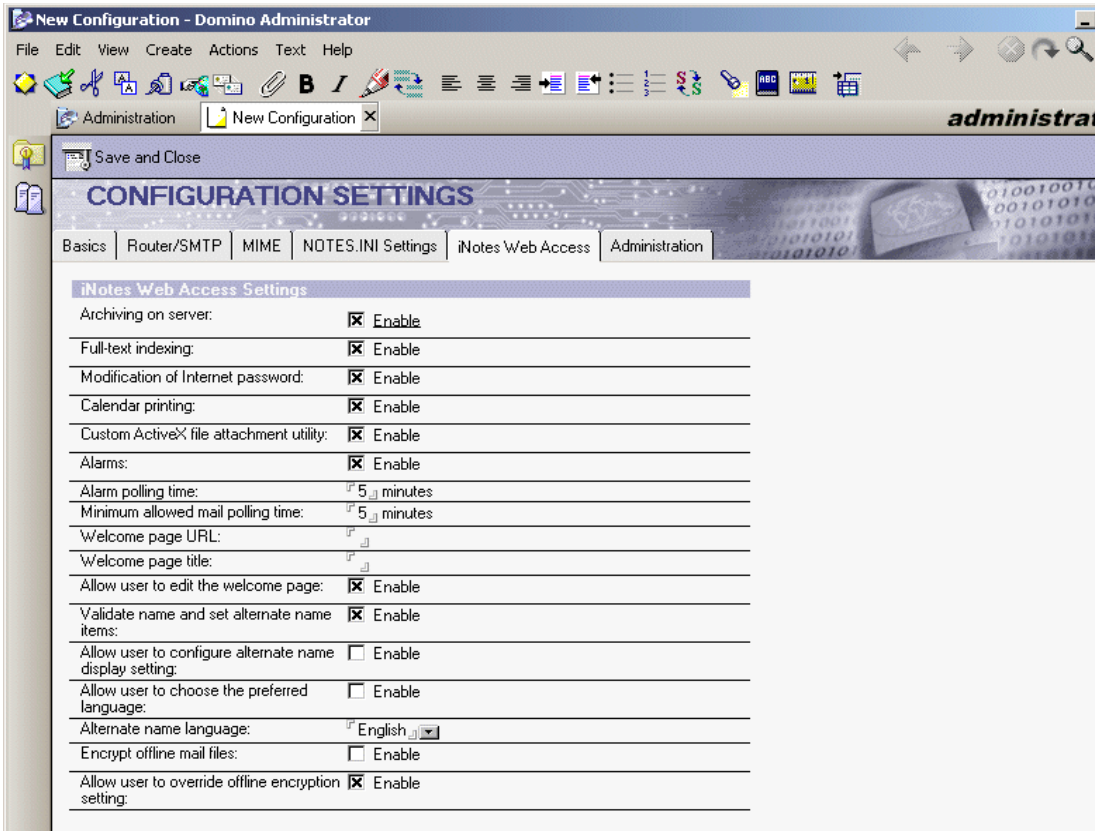


Figure 2-28 iNotes Web Access parameters in the Configuration document

5. Change any of these settings as necessary. For example, specify a customized corporate Welcome page for the users. Here are considerations about some of these configuration options:

   – Archiving on server:

     Because iNotes Web Access cannot archive on the client, a server archive is provided. There is another iNotes_WA_DisableArchive keyword in notes.ini that overrides this parameter. Specifying iNotes_WA_DisableArchive=0 means to allow archiving while iNotes_WA_DisableArchive=1 means to disable archiving.

   – Full-text indexing:

     This option allow users to create and maintain a full-text index on the Domino server when they are accessing online. Unlike full-text indexing created from a Notes client, it will not perform full-text indexing on attachment files.

   Important: Some options such as Archiving on server or Full-text indexing may consume more resources such as disk space, disk I/O, and processor on the Domino server.

6. Click **Save and Close**.
7. Restart the Domino server for the changes to take effect.

2.5 Deploying and setting up clients

One of the benefits of iNotes Web Access is less administration on the client side. If you plan to deploy online access only, iNotes Web Access offers a simple deployment with no-touch desktop installation. If you plan to deploy offline capability to the users for disconnected or mobile access, the users need to install Lotus iNotes Sync Manager as well as the subscriptions to the databases they want to take offline on their workstations.

2.5.1 Online clients

After upgrading existing users or registering new users, you need to provide three items of information to the users: user ID, Internet password, and a URL to access their mail file.

- **User ID**: To log on, the user may use the fully qualified username with organization or full name or user ID or shortname as specified in the Domino Directory. (For more information, please refer to *Domino R5 Administration Help* database (help5_admin.nsf) and reference the Security topic).
- **Internet password**: This is the password that you specify in the Internet Password field of the Person document in the Domino Directory. This password may be different from the user's Notes ID password.
- **URL**: Users can access their mail file from iNotes Web Access by specifying a URL in the following format:

  `http://<fully-qualified-Dominoservername>/mail/<user-mail-file>.nsf`

  Note: Make sure to specify the fully qualified Internet name, such as `http://inotes.itso.ibm.com`, instead of just the Domino server name.

  By default, this displays the Welcome Page. But you may provide other URLs to initially display the Inbox, Calendar, To Do list, and so on. Table 2-6 shows the URLs to directly access these views.

Table 2-6 URLs and the initial display views

To display	URL
Welcome Page	`servername.com/mail/username.nsf`
Contact List	`servername.com/mail/username.nsf/inotes/contacts/?OpenDocument&ui=inotes`
To Do List	`servername.com/mail/username.nsf/inotes/todo/?OpenDocument&ui=inotes`
Calendar	`servername.com/mail/username.nsf/inotes/calendar/?OpenDocument&ui=inotes`
Mail Inbox	`servername.com/mail/username.nsf/inotes/mail/?OpenDocument&ui=inotes`

For the Standard R5 mail template (mail50.ntf) and Extended R5 mail template (mail50ex.ntf), the default URL provides the WebMail interface. If the user still needs to access WebMail because of an unsupported Web browser, they can explicitly specify a URL for each interface as shown in Table 2-7.

Table 2-7 Specific URL for WebMail and iNotes Web Access for iNotes5.ntf template

User interface	Explicitly specified URL
iNotes Web Access user interface	`http://www.acme.com/mail/jsmith.nsf?OpenDatabase&ui=inotes`
Domino WebMail user interface	`http://www.acme.com/mail/jsmith.nsf?OpenDatabase&ui=webmail`

Tip: You can use the WebMail redirection tool to provide a single URL to log on for all users. For more information, refer to Chapter 4, “Enhancing iNotes Web Access” on page 113.

2.5.2 Offline clients with Lotus iNotes Sync Manager

Lotus iNotes Sync Manager is the component application that enables end users to set application replication for DOLS-enabled databases. Each database that you add in the synchronization list is referred as a *subscription*. You may have several subscriptions for your mail, directory catalog, or other DOLS-enabled applications. To install the Lotus iNotes Sync Manager, you can either install it directly from the Domino server or from the separate CD for low-bandwidth or dial-up users.

Before a user can go offline, the mail database’s owner must be set to be their own ID. In Domino R5.0.8, if a user tries to click Go Offline before the database’s owner is not set, an error occurs with an instruction on how to set the mail owner in Preferences. In this case, the user can to go the Preferences menu, under Mail tab, and assign themself has the mail owner. On the contrary, in Domino R5.0.9, the first time that a user logs on to iNotes Web Access, the Preferences window pops-up automatically to let the user assign themself as the owner of their mail database as shown in Figure 2-29.

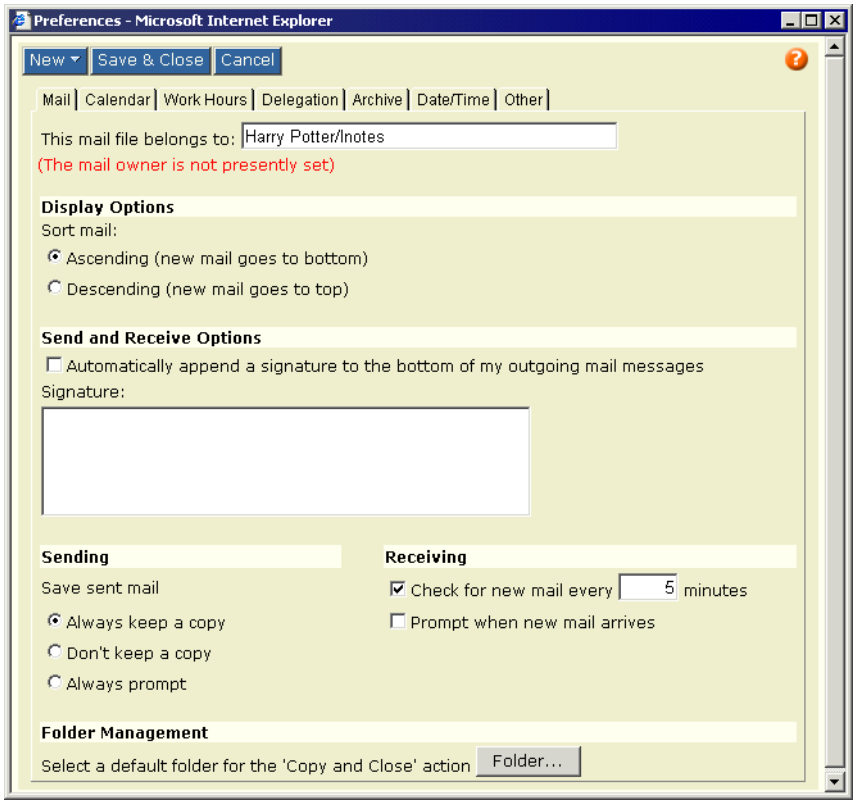


Figure 2-29 Preferences window in R5.0.9 allowing user to assign themself as the mail owner

Users can install and enable Lotus iNotes Sync Manager for offline access to iNotes Web Access by themselves with an easy three-click installation. The administrator may provide the instructions in the following steps. These steps show you how to enable clients for offline access to iNotes Web Access from the Domino server:

1. Start your Web browser and login to your mail file. For example, use the following URL as shown in Figure 2-30:

   `http://<Dominoservername>/mail/<user-mail-database>.nsf`

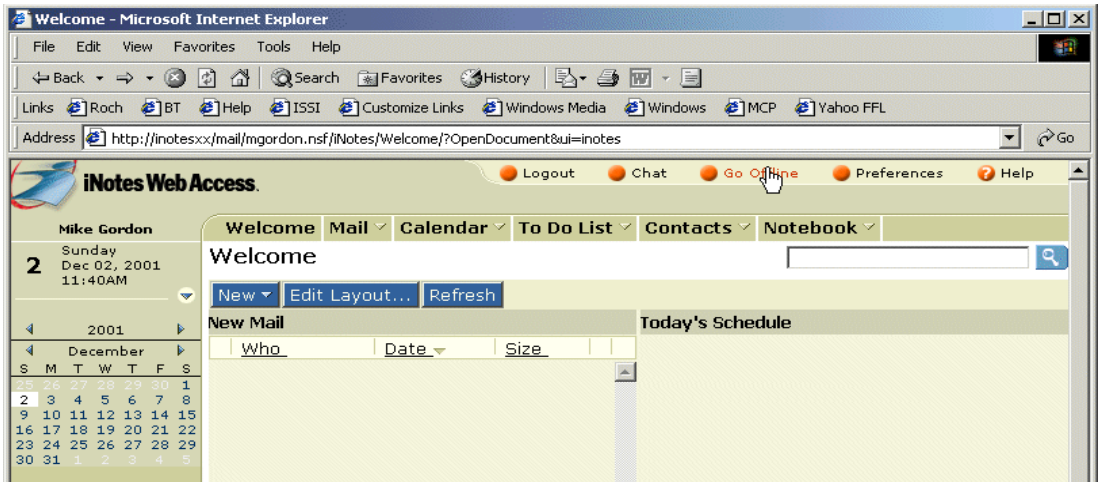


Figure 2-30 Logging into mail to go offline through iNotes Web Access

2. Click **Go Offline-> Install Subscription** as shown in Figure 2-31.

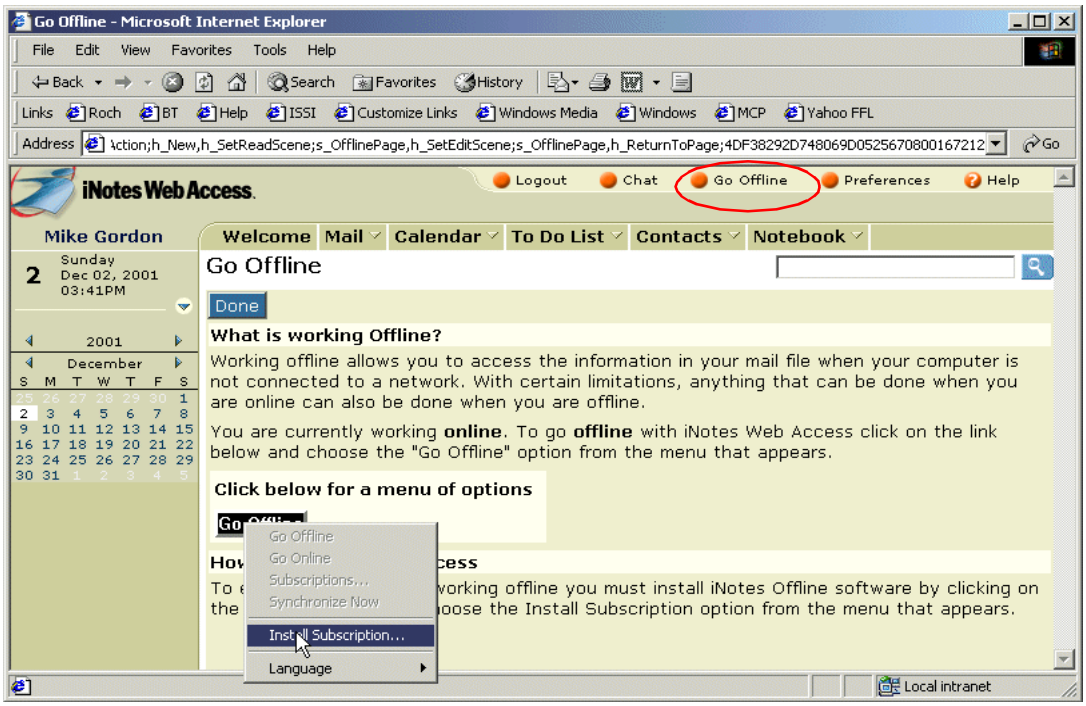


Figure 2-31 Installing a subscription for iNotes Sync Manager

3. Click **Yes** to install the iNotes Sync Manager (Figure 2-32).

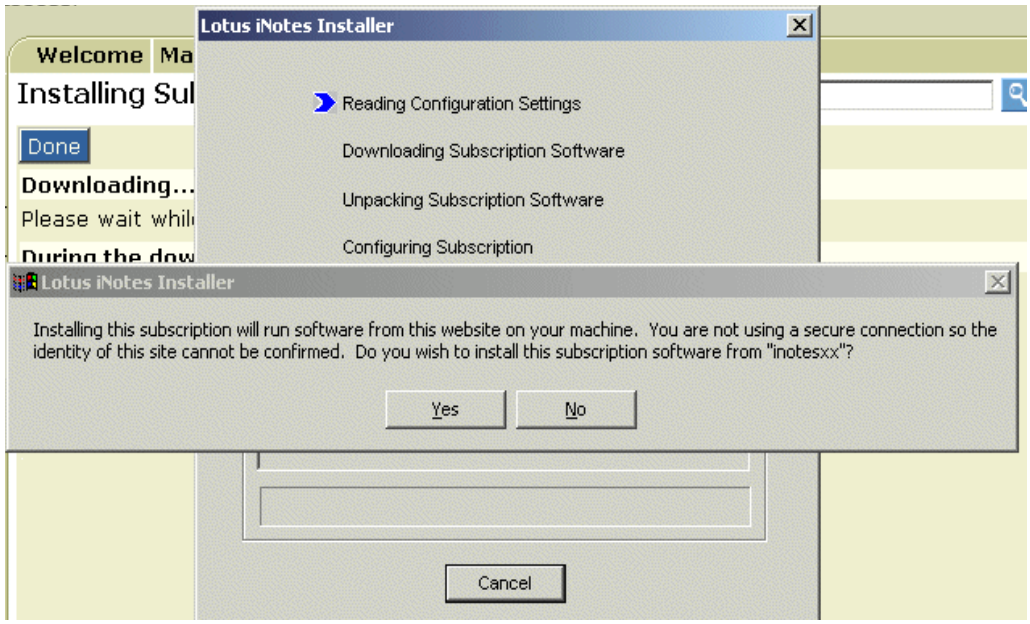


Figure 2-32 Downloading the subscription software and Lotus iNotes Sync Manager

Note: You must have ActiveX enabled on the Web browser. The Lotus iNotes Sync Manager is implemented using ActiveX/Plug-in files that are rendered at the iNotes workstation level.

4. Select the user ID for the DOLS-enabled database (Figure 2-33).

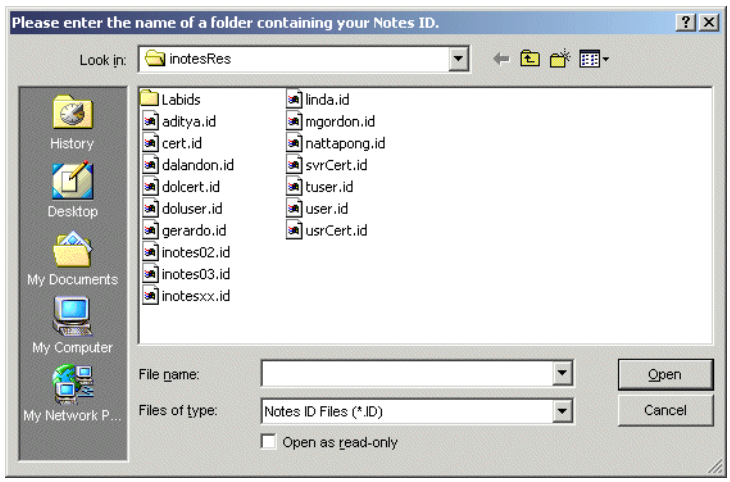


Figure 2-33 Selecting the Notes ID for the DOLS-enabled database (in this case for the mail database)

5. The Lotus iNotes Sync Manager window appears. Wait until you see a completion message pop-up window. Notice that the synchronization status is idle now (Figure 2-34).

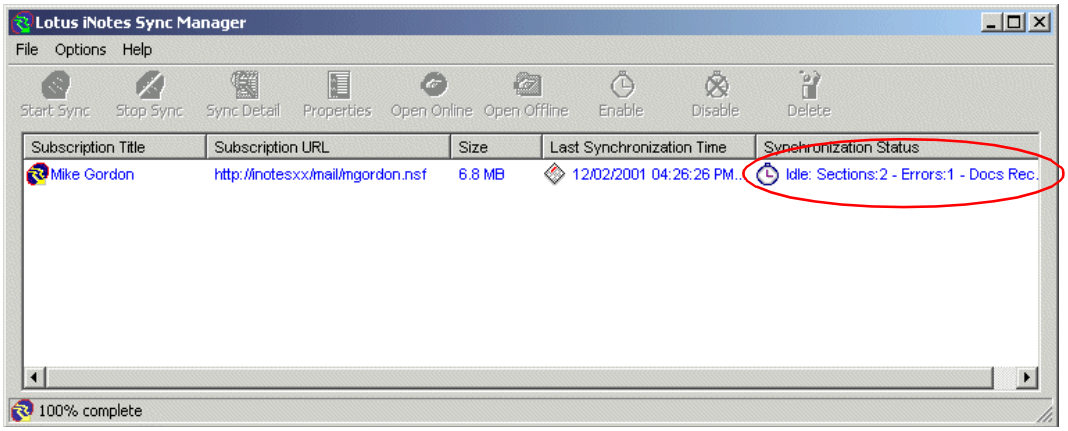


Figure 2-34 Lotus iNotes Sync Manager

Note: A subscription is considered to be any DOLS-enabled database that has been taken offline.

What is installed for offline installation in the client

By default, the Lotus iNotes Sync Manager is installed in the C:\Program Files directory. The files shown in Table 2-8 are installed.

Table 2-8 Location and files installed as a part of Lotus iNotes Sync Manager installation

Local directories	Files stored in directories
C:\Program Files\Lotus iNotes	Lotus iNotes Sync Manager program files
C:\Program Files\Lotus iNotes\Data	DOLS configuration, dolsnames.nsf, mail.box, log.nsf
C:\Program Files\Lotus iNotes\Data\<Subscription Name>\...	Contains databases associated with that subscription including mail file and directory catalog, full-text index of all databases, and a user ID file

Note: iNotes Web Access offline access does not use dolsnames.nsf to keep personal contacts and groups as in iNotes Access for Microsoft Outlook, but rather, uses the Contacts folder that is a part of the mail database. This gives users the benefit of having a synchronized contact list at all times that they can integrate into their mail databases, regardless of whether they are working online or offline.

Behind the scenes: What happens during offline installation

Besides installing a number of program files on the client, DOLS also installs what is essentially an “offline Domino server environment”. It consists of a Domino Directory, dolsnames.nsf, with Person documents for each user who has taken an application offline.

DOLS actually creates a local instance of a Domino server, running only with the necessary services and ports (Figure 2-35).

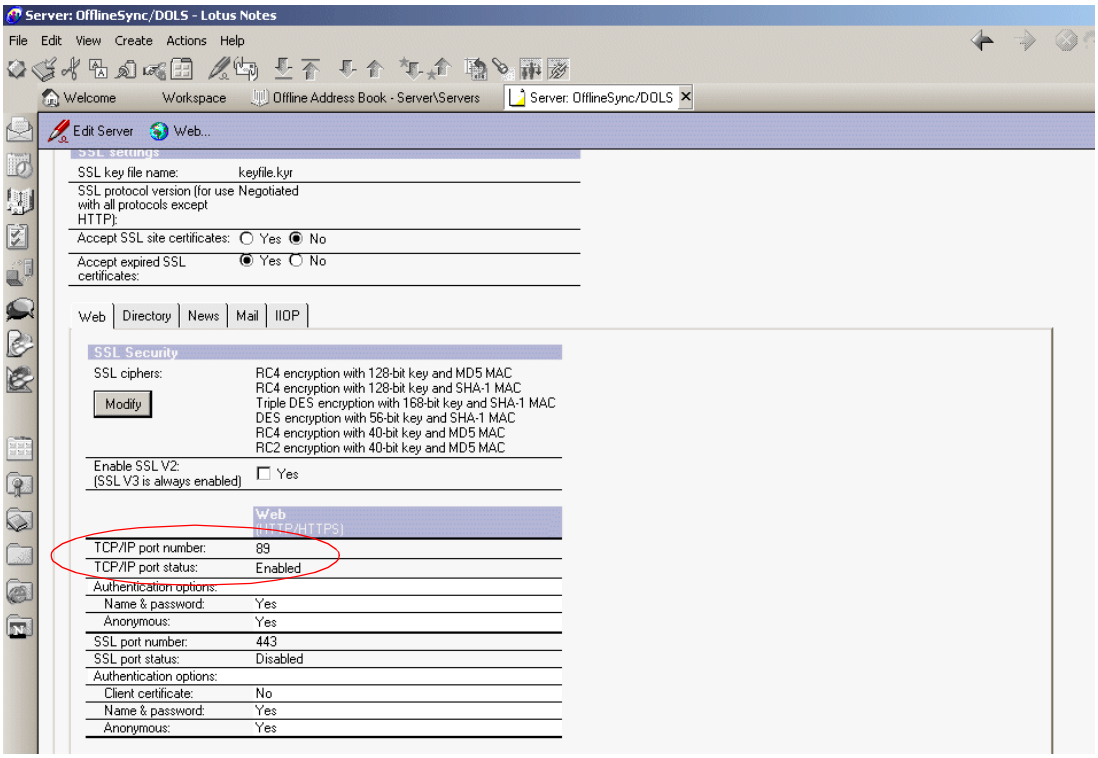


Figure 2-35 DOLS Domino Directory (dolnames.nsf)

This instance of the Domino server uses port 89 to listen for local Web browser connections. However, the Web browser is not actually using the network interface to connect to the Domino server, but rather the internal loopback interface of 127.0.0.1. An external user cannot access this local PC using the workstation IP address and this port from a Web browser or any other client.

This is why the same port is used offline regardless of whether the online mail database uses SSL. If encryption is needed when the database is taken offline, it would be via modifying the user preferences and enabling encryption (Figure 2-36).

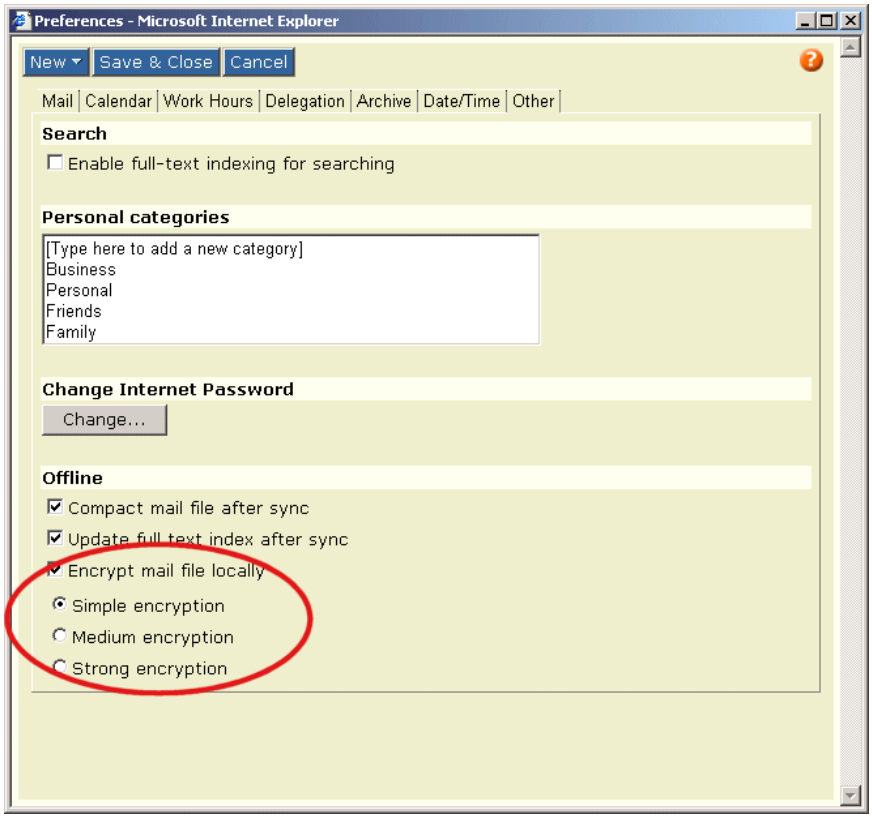


Figure 2-36 User preferences: Local encryption when working offline

Enabling local mail encryption

iNotes Web Access in Domino R5.0.9 supports the local encryption of a mail database. If you already have a subscription that is not encrypted and now want to enable the encryption, you have to enable encryption as well as resubscribe your mail files by perform the following steps:

Important: Make sure that your Notes ID password (the one that comes with the ID file) and Internet password match. Otherwise, you cannot open your locally encrypted mail database and will receive an HTTP error code of 500.

1. Open your Lotus iNotes Sync Manager. Delete your current subscription by clicking the **Delete** button.
2. From a Web browser, login to your mail database.
3. Click **Preferences**.
4. Click the **Other** tab.
5. Under the **Offline** section, select the **Encrypt mail file locally** check box (Figure 2-36).
6. Click one of the radio buttons that specify the level of encryption.
7. Click **Save and Close**. You see the animation window indicating that your new preferences are being saved.
8. Click **Go Offline** and continue with the subscription installation as described in 2.5.2, “Offline clients with Lotus iNotes Sync Manager” on page 46.

2.6 Other considerations

This section discusses some considerations for deploying iNotes Web Access in certain environments.

2.6.1 Upgrading from a pre-R5.0.8 Domino server

Upgrading from a pre-R5.0.8 release using the incremental installer does *not* contain the iNotes Web Access mail template. If you plan to upgrade the Domino server on iSeries from a release prior to R5.0.8, we recommend that you upgrade using the full-version installation media of Domino R5.0.8 or newer releases. For more information, please refer to the Lotus Domino incremental installers Web page:
http://www.ibm.com/servers/eserver/iseries/domino/incinst.htm

You can also refer to the Lotus Notes/Domino R5.0.8 MR/MU Web page at:
http://www.notes.net/r5fixlist.nsf/Progress/5.0.8?OpenDocument

2.6.2 Upgrading from a customized mail template

Domino mail and application template customization is common among customers. However, the current version of the iNotes Web Access Version 1.0 mail template that comes with Domino R5.0.8 or R5.0.9 is not designed for, and not recommended by, Lotus to be customized until the future releases. At that time, proper designer tools for customizing iNotes Web Access will be provided.

You may continue to use a company's customized mail template for some users in Domino R5.0.9 while using a iNotes Web Access template for users who plan to use iNotes Web Access on the same iSeries server. For customization of the iNotes Web Access template, please refer to Chapter 4, "Enhancing iNotes Web Access" on page 113.

2.6.3 Multiple releases of Domino servers

Running multiple releases of Domino servers in a single logical partitioning (LPAR) on iSeries server is currently not supported. If you have other applications that require pre-R5.0.8, you may need to run in a separate LPAR on the same iSeries server or on a separate iSeries server.

2.6.4 iNotes Web Access, Sametime, and QuickPlace on the same system

iNotes Web Access, Sametime, and QuickPlace can be installed in the same iSeries server. However, there is a consideration about the version compatibilities between QuickPlace and Domino.

Normally, QuickPlace for iSeries Release 2 can be installed as a standalone server or with an existing Domino server. However if you plan to install QuickPlace with an existing Domino server, you have to use the compatible version/release of QuickPlace that corresponds to Domino server version/release as denoted in Table 2-9.

With Domino R5.0.8, if you plan to run iNotes Web Access, as well as Sametime and QuickPlace on Domino R5.0.8, you need to upgrade Domino from R5.0.8 to R5.0.8.01 as well as QuickPlace 2.0.8 to 2.0.8.01. The patches are provided as Maintenance Updates (MUs) and are available on the Domino for iSeries service/support incremental installer Web site at:
http://www.ibm.com/servers/eserver/iseries/domino/incinst.htm

Important: There is currently no plan for the availability of a QuickPlace release to work with Domino R5.0.9. For Domino customers who currently have QuickPlace 2.0.8 and Domino 5.0.8 installed, please be advised that an upgrade to Domino 5.0.9 will make your existing QuickPlace installation inoperable.

You should plan accordingly if you intend to deploy QuickPlace in the future on the same system running Domino R5.0.9.

Table 2-9 QuickPlace and Domino compatibility releases

QuickPlace release	Domino release
N/A	5.0.9
2.0.8	5.0.8
2.0.7	5.0.7 or 5.0.7a
2.0.6a	5.0.6a
2.0.5	5.0.5
2.0	5.0.4

2.6.5 Multiple mail clients on the same Domino server

You can have Lotus Notes users, iNotes Access for Microsoft Outlook users, iNotes Web Access users, WebMail, or other POP3/IMAP clients accessing their mail from the same Domino server. In the initial release of iNotes Web Access, it supports only Internet Explorer 5 on a Win32 platform. Other Web clients may continue to use WebMail to access their mail from a Web browser.

2.6.6 Users accessing their mail database from different types of clients

Currently with Domino R5.0.8 or later, three types of R5 mail database templates are available as shown in Table 2-10. You may ask: “There are so many templates, which one should I use?”. The answer is that each template is designed to be used for different types of clients that access the Domino server. You may have users using different templates in the same system.

Table 2-10 Available R5 mail database templates for Domino R5.0.8 or later

Template name	Template description	Template file name
StdR50Mail	Mail (R5.0)	mail50.ntf
ExtR50Mail	Extended Mail (R5.0)	mail50ex.ntf
iNotes5	iNotes Mail and C&S	inotes5.ntf

Tip: To check which mail template is being used for each database, you can check in the Database Catalog (catalog.nsf) located in the Domino server’s data directory.

- **Mail (R5.0)** is the standard R5 mail that contains forms, frames, fields views, etc. for the Notes client as well as the WebMail client. It provides the smallest mail database size. If the users use only the Notes client or WebMail or other Internet mail clients (POP3/IMAP) to access their mail, this template should be used.

- **Extended Mail (R5.0)** is a superset of the Mail (R5.0) template and supports all the clients in Mail (R5.0), plus the Microsoft Outlook client (using iNotes Access for Microsoft Outlook support). It was first shipped in Domino R5.0.5. It provides Microsoft Outlook users offline access using DOLS/Lotus iNotes Sync Manager to the client. The footprint of Lotus iNotes Sync Manager program, plus the template, is around 20 MB. This template should be used for the users who access their mail from Microsoft Outlook, Notes client, WebMail or Internet mail clients – in any combination.
- **iNotes Mail and C&S** is the iNotes Web Access template providing access to mail, calendar and scheduling to users via a Web browser. First shipped in R5.0.8, iNotes Web Access is the superset of Mail (R5.0) and Extended Mail (R5.0) plus iNotes Web Access and DOLS/Lotus iNotes Web Access for both online and offline access. This template should be used for the users who access their mail from iNotes Web Access, Microsoft Outlook, Notes client, WebMail, or Internet mail clients – in any combination.

2.7 National language support

iNotes Web Access client language support is based on the international language version of the Domino server installed. From the international version of Domino server in product development point of view, the language is translated based on the normal Lotus Domino translation process. Note that all languages may not be available on the iSeries platform. Here are the lists of current Domino server languages:

- **Group 1**: Available within 14 days of Global English – Brazilian Portuguese, French, Italian, German, Spanish, Simplified Chinese, Traditional Chinese, Korean, Japanese, and Thai
- **Group 2**: Available within 60 days of Global English – Iberian Portuguese, Danish, Dutch, Swedish, Norwegian, Finnish, Czech, Hungarian, Polish, Russian, Greek, and Turkish

Multiple language client support in the same server

Due to iNotes Web Access in R5.0.8 and R5.0.9 being based on a shared inotes5.ntf template and a shared forms5.nsf database, currently they do not support a multiple language environment on the same Domino server. This feature may be supported in future releases.

The HTML help for iNotes Web Access is not implemented in an NSF file, but in loose HTML files located in the Domino server's data directory under the /domino/html/inotes5/help directory. The help text is also translated according to the language version of the Domino server installed. You cannot have multiple help languages on the same Domino server.

Installing other language dictionaries for spell-checking

The language dictionary files are used for spell-checking within Notes and Domino. The iNotes Web Access client also share the spell-checking capability and dictionary files with the Notes client.

Different language versions of Domino for iSeries R5 may install different dictionaries, depending on the language. The Global English national language version of Domino for iSeries R5.0.8 (and later) installs the following language dictionary files:

- French (Canada): canadien.dic
- English (United Kingdom): uk.dic
- English (United States): us.dic
- Medical (American): wpdic.dic

Domino for iSeries installs these files in the product directory /QIBM/ProdData/Lotus/Notes/shared/<dict-name>.dic, along with symbolic links to these dictionary files in each Domino server's data directory.

Additional dictionary files are contained in the dictions.exe or dictionaries.exe file that may be obtained from one of the following sources:

- **Notes.net**: Download the iNotes Web Access dictionaries Win95/98/NT, OS/2, Mac English (dictions.exe file)
- **\APPS\DICTIONARIES directory**: On the Notes or Notes/Domino Designer CD

If you want to use one of the dictionary files listed in Table 2-11 and find that it has not been installed automatically by Domino, decompress the contents of the self extracting file to a temporary directory on your PC's hard drive. End your Domino servers and then transfer the dictionary files using FTP (or another file transfer method) to your Domino server's data directory. The owner of the file should be changed to QNOTES with the following command:

```
CHGOWN OBJ('<domino-server-data-directory-path>'/<dict-name>.dic') NEWOWN(QNOTES)
```

Add the symbolic link, to that dictionary file, to the data directory of each Domino server that should have access to the dictionary. Then restart your Domino servers. The symbolic link can be created using the Add Link (ADDLNK) command, for example:

```
ADDLNK OBJ('/QIBM/ProdData/Lotus/Notes/shared/<dic-name>.dic')
NEWLNK('<domino-server-data-directory-path>') LNKTYPE(*SYMBOLIC)
```

Important: Ensure you have the appropriate language dictionaries in either the product directory (with a SYMBOLIC link in your Domino server's data directory for dictionaries installed by Domino) or each Domino server's data directory (for dictionaries installed manually).

As always, if you add dictionary files to customize your Domino installation, we recommend that you backup your Domino servers after the dictionary files are added.

Figure 2-37 shows the iNotes Web Access client choosing a language dictionary for spell-checking.

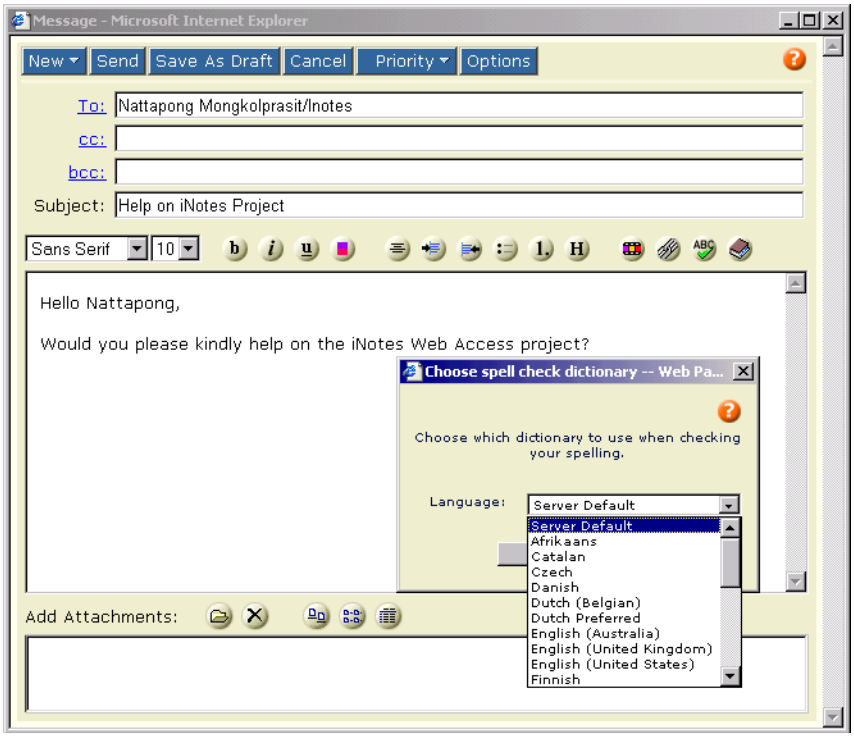


Figure 2-37 Language dictionaries available to iNotes Web Access

Table 2-11 shows the various language dictionaries available and their associated file names.

Table 2-11 Language dictionaries and their associated file names

Language	File name
Afrikaans	AFRIKAAN.DIC
Catalan	CATALA.DIC
Czech	CZECH.DIC
Danish	DANSK.DIC
Dutch Dutch Belgian	NEDERLND.DIC
Dutch Preferred	NEDPLUS.DIC
English (Australia)	AUS.DIC
English (Canada) English (Caribbean) English (Jamaica) English (New Zealand) English (United States)	US.DIC
English (Ireland) English (South Africa) English (United Kingdom)	UK.DIC
Finnish	SUOMI.DIC

Language	File name
French (Belgium) French (Luxembourg) French (Standard) French (Switzerland)	FRANCAIS.DIC
French (Canada)	CANADIEN.DIC
German (Austria) German (Liechtenstein) German (Luxembourg) German (Standard)	DEUTSCH.DIC
German (Reform)	DEUTSCH2.DIC
German (Switzerland)	DSCHWEIZ.DIC
Hungarian	MAGYAR.DIC
Icelandic	ISLENSK.DIC
Italian (Standard) Italian (Switzerland)	ITALIANO.DIC
Medical (American) Medical (British) Medical (British IZE)	US.MED
Norwegian (Bokmal)	NORBOK.DIC
Norwegian (Nynorsk)	NORNYN.DIC
Polish	POLSKA.DIC
Portuguese (Brazil)	BRASIL.DIC
Portuguese (Standard)	PORTUGAL.DIC
Spanish Spanish (Argentina) Spanish (Bolivia) Spanish (Chile) Spanish (Colombia) Spanish (Costa Rica) Spanish (Dominican Republic) Spanish (Ecuador) Spanish (Guatemala) Spanish (Mexico) Spanish (Modern Sort) Spanish (Panama) Spanish (Paraguay) Spanish (Peru) Spanish (Uruguay) Spanish (Venezuela)	ESPANA.DIC
Swedish	SVENSK.DIC
Thai	SPELLT.GRA
Turkish	TURKIYE.DIC

2.8 Performance and sizing considerations

iNotes Web Access is considered to be a type of Domino Web application. In our test environment that we document here in this section, we found that compared to WebMail, the iNotes Web Access client is over 30% lighter on CPU utilization and three times better in response time.

Although iNotes Web Access contains very fancy HTML, XML, DOM2 and JavaScript coding, it is still a Web application and must be sized as such. And as with any Notes or Web application, the performance is based on what the users *really* do, whether they be power users or light-weight mail readers.

2.8.1 Client recommendation

There are no special tuning parameters for the client or for Internet Explorer that will increase performance. However, make sure that client's Web browser allows for caching. By default, the Internet Explorer caches Web pages.

2.8.2 Server recommendation

We recommend that you use the latest model of iSeries server with the latest processor technology for better response time. You should also configure a minimum of six disk drives with 10k RPM or better for systems running Domino.

For iNotes Web Access users on iSeries, a minimum of 1 GB of memory is a good rule of thumb. We strongly recommend that you use the iSeries Workload Estimator to determine an appropriate memory size based on the anticipated workload.

The IBM Workload Estimator for iSeries provides sizing recommendations for an iSeries or an AS/400e running one or more workloads associated with e-business or collaboration, such as Domino, Java, or WebSphere. You can use the Workload Estimator to size a new iSeries or AS/400e with all new workloads, or to size the upgrade of an existing system (with the original workload set or any additions).

The Workload Estimator provides sizing support for Domino applications and currently supports mail sizing with Notes, WebMail, POP3, IMAP, iNotes Access for Microsoft Outlook, and iNotes Web Access. You can access the Workload Estimator at:
`http://www.ibm.com/eserver/iseries/support/estimator`

A sample result of the Workload Estimator is shown in Figure 2-38.

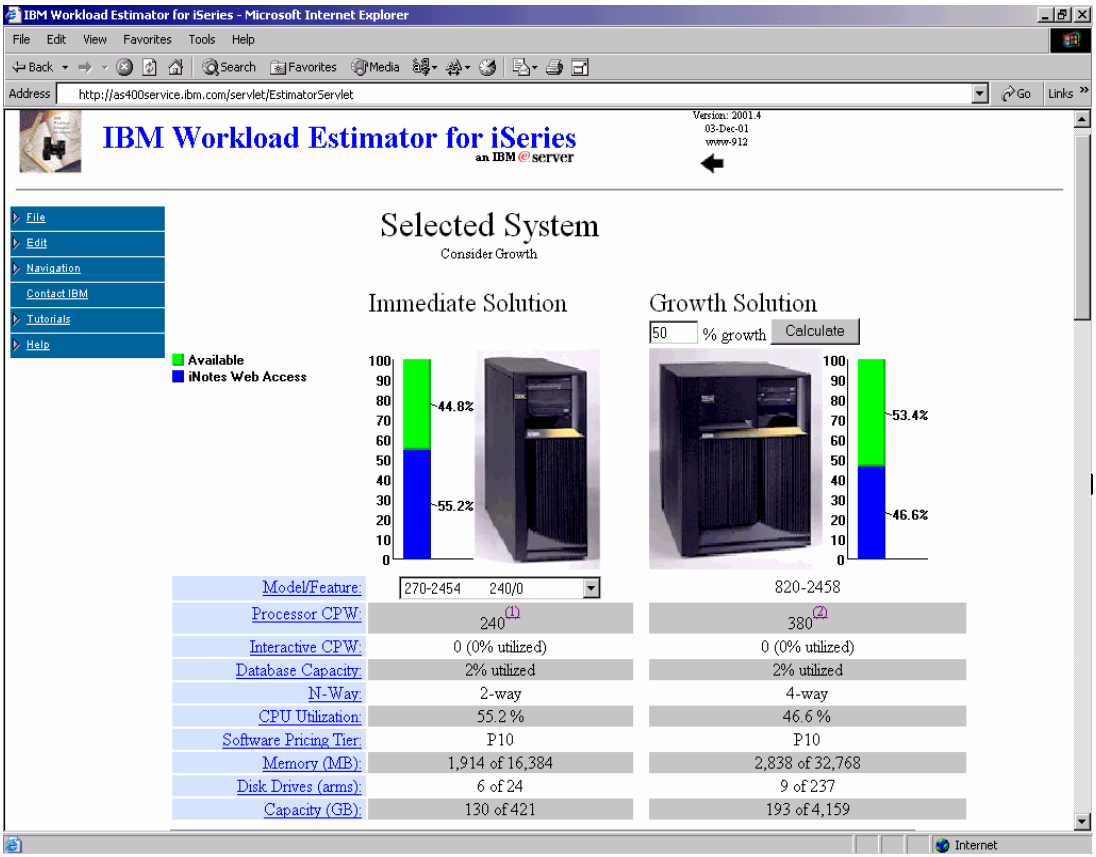


Figure 2-38 IBM Workload Estimator for iSeries

2.8.3 Performance testing

In writing this redbook, we became closely integrated with the iSeries Domino Performance team. Together we developed our own set of scripts to drive workload for testing. The workload we used is shown in Table 2-12.

The configurations we tested included:

- WebMail
- iNotes Web Access with Domino HTTP
- iNotes Web Access with Domino HTTP with SSL
- iNotes Web Access with OS/400 HTTP
- iNotes Web Access with OS/400 HTTP with SSL
- iNotes Web Access with OS/400 HTTP with SSL and the Cryptographic Coprocessor

For SSL testing, the Domino servers were set to redirect HTTP port 80 to SSL port 443. Server keyring files were 1024-bit CA with SSL v3 used. Each configuration used four iterations of our script and completed the same number of scripted transactions with 500 users.

Another very important performance aspect of using SSL on Domino servers is Web browser settings. A default Web browser will not cache anything from SSL sites, including GIFs, so they must be reloaded each time, adding significant overhead. This is shown in Table 2-15 on page 62.

To enable Web browser caching for encrytped pages, perform the following steps:

1. From your Internet Explorer 5 Web browser, select **Tools -> Internet Options** from the pull-down menu.
2. From the Internet Options window, select the **Advanced** tab.
3. Scroll down in the Settings list to the **Security** section, and deselect the **Do not save encrypted pages to disk** (Figure 2-39) option. Click **OK**.

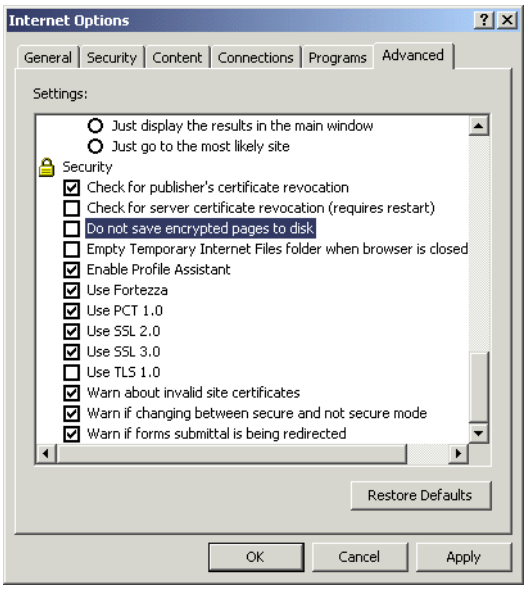


Figure 2-39 Caching encrypted pages on the Internet Explorer Web browser

The purpose of these performance tests was to look at various options that are available on the iSeries platform and analyze the performance implications while providing a realistic workload. The components used in our tests are summarized in Table 2-12.

Table 2-12 Workload components used in our performance test environment

Workload component	**Description**	**Scripted transactions for iterations**
Authenticate	Login to the user's mail file	2000
Open Inbox and read five messages	Open and scroll through five messages (13K each)	10000
File two documents	File documents in a folder.	4000
View folder	Open folder to see documents were moved	4000
Send two messages	Send 13K message to three recipients each time	4000
Delete four messages from the Inbox	Scroll to bottom of the Inbox and click **Delete**; then go to **Trash** folder and **Empty Trash** to complete actual deletion of a document	8000
	Total:	32000

Performance rationale

It is important that you understand and can interpret our performance data so you can correlate the results to your Domino environment. Table 2-12 describes what our performance tool calls a *transaction*. For every performance analysis, we ran four iterations of our script that correlates to the 32,000 scripted transactions listed in Table 2-12. The results indicated that the total number of Domino requests equals approximately three times the total scripted transactions (32000) for iNotes Web Access. To start your total Domino requests on your Domino server, issue the **sh stat domino** command from the Domino server console. Figure 2-40 shows the results of this command.

```
                          Display Domino Console
                                                        Server: INOTESML01
Previous subcommands and messages:
    Domino.Requests.Total = 94,336
    Domino.ThreadPool.average = 136619
    Domino.ThreadPool.max = 262144
    Domino.Threads.Active.Peak = 43



F3=Exit   F5=Refresh   F6=Print
F17=Top   F18=Bottom   F21=Command line
```

Figure 2-40 Total of Domino requests per hour

The measurements were collected on an iSeries Model 820-2438 running OS/400 V5R1. This system has the equivalent performance as the Dedicated Server for Domino (DSD) Model 820-2458. The system was configured with 43 9 GB disk drives and RAID5 protection. Table 2-13 shows more specifications of our test system.

Table 2-13 Performance test system specifications

Model number	Number of CPUs (600 Mhz each)	Memory pool size	Number of users
820-2438	4	11GB	500

Performance results

The results in Table 2-14 show that iNotes Web Access accomplished its goals by reducing CPU utilization over 30% compared to WebMail and improving response time significantly.

Using the OS/400 HTTP server does not yield performance benefits unless used with SSL or the Cryptographic Coprocessor, compared to Domino HTTP with SSL. The reason for this is the Domino R5 server's HTTP code does not support persistent connections. There would be a worthwhile gain if you needed to run WebSphere and Domino together and they needed to share the same HTTP stack and peacefully coexist.

Table 2-14 Results of our performance tests

Configurations for performance tests	Number of users	Average response time in seconds	Average CPU utilization (%)	Total Domino requests	Average com util (%)
WebMail	500	2.2	58.7%	70097	16.3
iNotes Web Access Domino HTTP	500	.8	46.1%	92507	13.4

Configurations for performance tests	Number of users	Average response time in seconds	Average CPU utilization (%)	Total Domino requests	Average com util (%)
iNotes Web Access Domino HTTP with SSL	500	1.4	48.1%	92507	14.8
iNotes Web Access OS/400 HTTP	500	1.0	54.0%	92507	13.5
iNotes Web Access OS/400 HTTP with SSL	500	1.0	54.4%	92507	14.7
iNotes Web Access OS/400 HTTP with SSL/Cryptographic	500	1.0	54.3%	92507	14.7

Note: Please be aware that the Average response time in seconds is an average of "scripted" transactions that are shown in Table 2-12 on page 60. Total Domino requests on iNotes Web Access are greater than WebMail because HTML, XML, DOM2, and JavaScript coding is used. The CPU utilization and response time are significantly better with iNotes Web Access.

Performance and security considerations

Typically the benefits of enabling security far outweigh the costs to deploy it. In general, enabling SSL may degrade server performance by at least 20%. But in our performance testing, we saw CPU utilization increase an average of only about 10% with SSL. The main idea is to plan accordingly when scaling your server.

Another alternative is to offload the SSL process to another hardware device. The iSeries server provides an integrated solution by using the new IBM PCI Cryptographic Coprocessor #4758 to offload SSL asymmetric key-pair negotiations between the Web browser client and the Domino iNotes Web Access server. For more information about Cryptographic Coprocessor and SSL configuration, refer to 3.2.4, "Configuring the Cryptographic Coprocessor" on page 83.

In 2.8.3, "Performance testing" on page 59, we talked about the importance of the Web browser caching from SSL sites. Table 2-15 shows the effects of caching encrypted pages.

Table 2-15 Effects of allowing caching from SSL sites

Configurations for performance tests	Number of users	Average response time in seconds	Average CPU utilization (%)	Total Domino requests	Average com util (%)
iNotes Web Access Domino HTTP + SSL (allow caching)	500	1.4	48.1	92507	14.8
iNotes Web Access Domino HTTP + SSL (no caching)	500	3.0	54.3	92507	35.4
iNotes Web Access OS/400 HTTP (allow caching)	500	1.0	54.4	92507	14.7

Configurations for performance tests	Number of users	Average response time in seconds	Average CPU utilization (%)	Total Domino requests	Average com util (%)
iNotes Web Access OS/400 HTTP (no caching)	500	2.3	60.5	92507	35.2

2.8.4 Domino server tuning

Domino is simply an application suite that has its own work and memory management functions and is designed on the iSeries server to run in its own dedicated subsystem. Tuning Lotus Domino for iSeries and tuning the iSeries server, therefore, must go together.

Notes.ini configuration

We recommend that you specify the NSF_BUFFER_POOL_SIZE_MB setting in the notes.ini file. This is because the Domino servers run out of their own storage pool that the auto-performance adjuster (WRKSYSVAL QPFRADJ) typically changes dynamically.

If you do not specify a value for NSF_BUFFER_POOL_SIZE_MB, by default, Domino will calculate a value to use based on the total memory of your iSeries server, *not* on its share of the storage pool. For most servers, 300 MB may work fine, but use the following procedure to determine a more precise value:

1. Determine which storage pool the Domino server is using. You can determine this by using the Work with Active Jobs (WRKACTJOB) command and then pressing F11. By default, the storage pool is 2 (Figure 2-41).

```
                          Work with Active Jobs                    AS06
                                                          11/29/01  17:24:34
CPU %:    6.4     Elapsed time:   00:00:43     Active jobs:   266

Type options, press Enter.
  2=Change   3=Hold   4=End   5=Work with   6=Release   7=Display message
  8=Work with spooled files   13=Disconnect ...
                                          --------Elapsed---------
Opt  Subsystem/Job  Type  Pool  Pty      CPU  Int    Rsp  AuxIO  CPU %
     INOTESML01     SBS      2    0       .0                 0     .0
       ADMINP       BCI      2   20      99.2                0     .0
       AMGR         BCI      2   20      23.9                0     .0
       AMGR         BCI      2   20      12.3                0     .0
       CALCONN      BCI      2   20       6.4                0     .0
       CLREPL       BCI      2   20     233.0                0     .1
       DIRCAT       BCI      2   20       5.8                0     .0
       EVENT        BCI      2   20     710.8                0     .4
       HTTP         BCI      2   20+    134.8                0     .0
                                                                 More...
Parameters or command
===>
F3=Exit   F5=Refresh      F7=Find      F10=Restart statistics
F11=Display thread data   F12=Cancel   F23=More options   F24=More keys
```

Figure 2-41 Determining which storage pool the Domino server is using with WRKACTJOB

You may also determine the storage pool by using Operations Navigator in OS/400 V5R1. To do this, look under the category **Work Management-> Subsystems**. Then look under the **Memory Pool** column as shown in Figure 2-42.

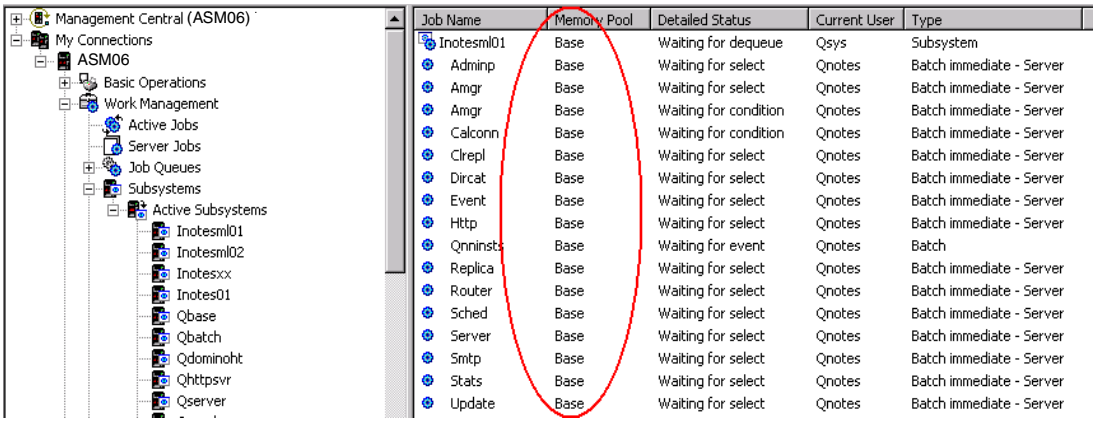


Figure 2-42 Determining which storage pool the Domino server is using with Operations Navigator

2. Find the size of the storage pool while your system is running at a steady state (that is, when QPFRADJ is not changing the pool sizes). You can see this with the Work with System Status (WRKSYSSTS) command as shown in Figure 2-43.

```
                          Work with System Status                   AS06
                                                          11/29/01  17:56:47
% CPU used . . . . . . . :        5.9    System ASP . . . . . . . :    87.74 G
% DB capability  . . . . :         .0    % system ASP used  . . . :    38.2486
Elapsed time . . . . . . :   00:00:01    Total aux stg  . . . . . :    87.74 G
Jobs in system . . . . . :        891    Current unprotect used . :     3630 M
% perm addresses . . . . :       .013    Maximum unprotect  . . . :     4233 M
% temp addresses . . . . :       .010

Sys       Pool   Reserved    Max                                      Paging
Pool     Size M   Size M     Act  Pool        Subsystem   Library     Option
  1      319.35    193.29  +++++  *MACHINE                           *FIXED
  2     3530.88      3.05    319  *BASE                              *CALC
  3      204.79       .00     79  *INTERACT                          *CALC
  4       40.95       .00      5  *SPOOL                             *FIXED
```

Figure 2-43 Determining the size of the storage pool using WRKSYSSTS

You may also determine the size of the storage pool by using Operations Navigator in OS/400 V5R1. As shown in Figure 2-44, look under **Work Management-> Memory Pools**.

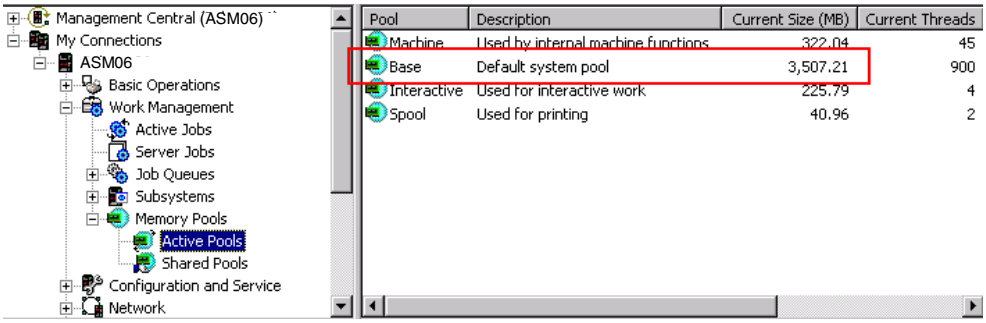


Figure 2-44 Determining the size of the storage pool using Operations Navigator

3. If you have multiple partitioned Domino servers using that storage pool, divide the pool size by the number of servers using the pool (excluding the *HTTPSETUP server, which is for configuring Domino servers only) and multiply by 3/8. Set the NSF_BUFFER_POOL_SIZE_MB in notes.ini to this number.

MAIL.BOX configuration

For optimal messaging throughput, enable two MAIL.BOX files. Keep in mind that MAIL.BOX files grow as a messages queue and that this growth can potentially impact disk I/O operations. Therefore, monitor MAIL.BOX statistics on the Domino server. Check statistics such as Mail.Waiting and Mail.MaximumDeliverTime. If either or both statistics increase over time, increase the number of active MAIL.BOX files and continue to monitor the statistics.

HTTP thread configuration

HTTP clients use non-persistent connections to the Domino server. Web browser requests are handled by HTTP threads running on the Domino server. By default, Domino allocates 40 HTTP threads to service HTTP requests from Web browsers. After the Domino server honors a Web browser request, that HTTP thread is free to service the next request. The number of requests that can be completed per second determines how many users can be supported by the system. We recommend that you use the default number of 40 HTTP threads on iSeries.

A single HTTP request from a Web browser client requires one file descriptor for the network connection and one for the item being requested. This requirement increases if authentication is enabled. Figure 2-45 shows the Minimum HTTP active thread setting and the Run Web agents concurrently setting in the Domino server document.

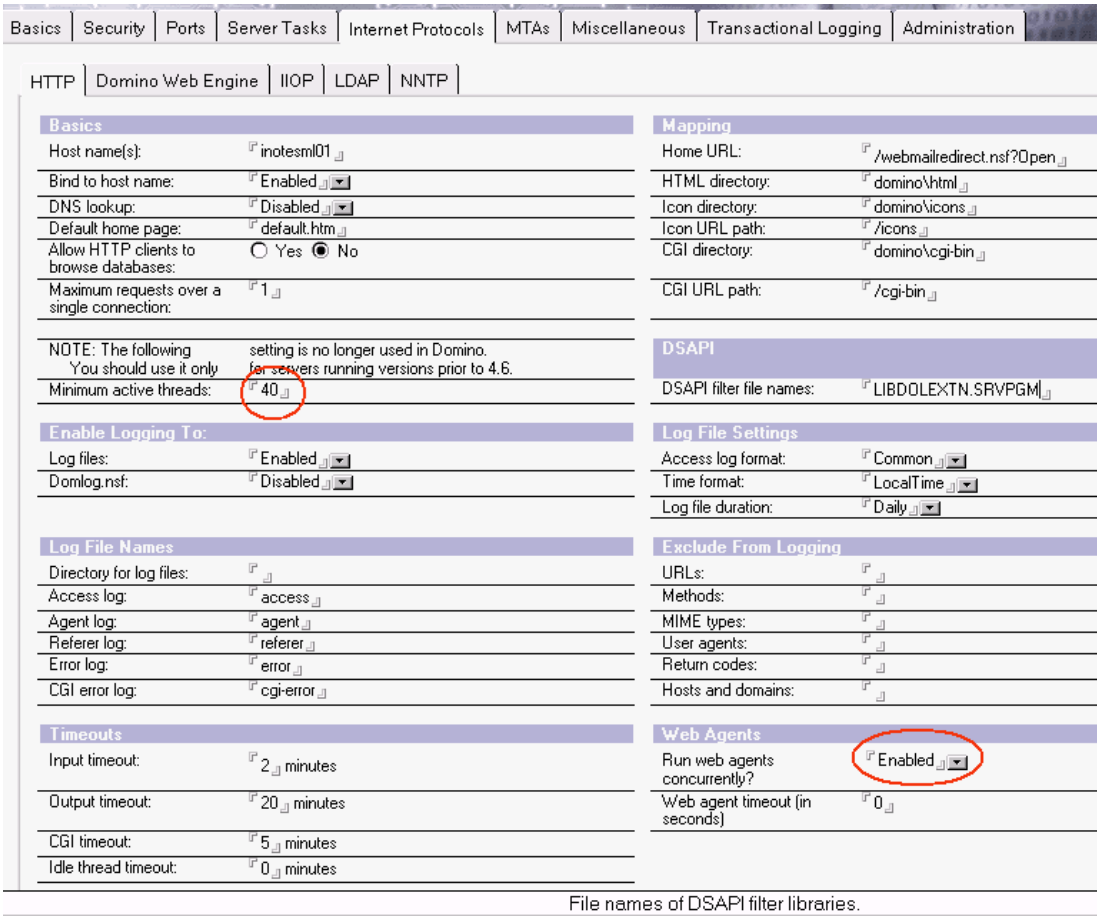


Figure 2-45 Number of HTTP active threads and enabling running Web agents concurrently

Verifying HTTP thread activity

When the HTTP server task initializes on the Domino server, the defined threads are created and occupy approximately 20 to 40 KB of memory each. These threads are fixed in number until you change the value in the Domino server document as shown in Figure 2-45. Once you change the number of active HTTP threads, you must restart the HTTP task. Use the Work with Active Jobs (WRKACTJOB) command to confirm the HTTP job has started the defined amount of threads as shown in Figure 2-46.

```
                          Work with Active Jobs                      AS06
                                                          12/06/01  15:27:43
CPU %:   19.9     Elapsed time:   00:00:02     Active jobs:   304

Type options, press Enter.
  2=Change   3=Hold   4=End   5=Work with   6=Release   7=Display message
  8=Work with spooled files   13=Disconnect ...

Opt  Subsystem/Job  User        Number  Type  CPU %  Threads
       HTTP         QNOTES      028101  BCI      .0       49
       QNNINSTS     QNOTES      026616  BCH      .0        1
       REPLICA      QNOTES      028091  BCI      .0        1
       ROUTER       QNOTES      028092  BCI      .0        1
       SCHED        QNOTES      028098  BCI      .0        1
       SERVER       QNOTES      026617  BCI      .1       59
       SMTP         QNOTES      028105  BCI      .0        2
       STATS        QNOTES      028094  BCI      .0        1
       UPDATE       QNOTES      028093  BCI      .0        1
                                                                      Bottom
Parameters or command
===>
F3=Exit   F5=Refresh   F7=Find   F10=Restart statistics   F11=Display status
F12=Cancel   F17=Top   F18=Bottom   F23=More options      F24=More keys
```

Figure 2-46 Work with Active Jobs to verify number of HTTP threads

Measuring thread activity

The statistics in Figure 2-47 regarding threads can be measured using the Domino server console. Issue the following command from the Domino server console:

```
show stat domino
```

```
                        Work with Domino Console
                                                      Server: INOTES01
 Previous subcommands and messages:

  Domino.Config.ActiveThreads.Max = 40
  Domino.Config.ActiveThreads.Min = 20
  Domino.Threads.Active.Peak = 2
  Domino.Threads.Peak.Time = 12/06/01 14:32:06
  Domino.Threads.Peak.Total = 40
Enter a Domino subcommand.
 ===>
 F3=Exit   F5=Refresh   F6=Print   F9=Retrieve
 F17=Top   F18=Bottom   F21=Command line
```

Figure 2-47 The show stat domino command for threads

If *Domino.Threads.Active.Peak* is equal to *Domino.Threads.Total*, HTTP requests may be waiting for the HTTP server to make an active thread idle before handling the request. If this is the case, increase the number of active threads in the HTTP section of the Domino server document (as shown in Figure 2-45) until *Domino.Threads.Active.Peak* is less than *Domino.Threads.Total*.

To ensure optimal performance, increase or decrease the number of active threads in jumps of five so that *Domino.Threads.Total* is close to five threads greater than *Domino.Threads.Active.Peak*. This minimizes the iSeries resources used and provides the greatest user responsiveness.

By having the number of active threads five above the peak active, it also allows for the increased use of your Web site in the future. To ensure that there are sufficient threads in the future, it is important that you review *Domino.Threads.Active.Peak* on a regular basis.

Note: For more information on best practices for Domino HTTP, refer to the redbook *Lotus Domino for iSeries: Sizing and Performance Tuning*, SG24-5162.

Maximum cache design settings

iNotes Web Access is an example of a database that stores design elements in main storage. The cached design parameter converts Notes database design elements to HTML and stores them in main storage while the Domino server is operational. The number of design elements within a database determines the number of design cache maximum required to optimize the design cache.

To measure the required maximum cached design elements, issue the following command from the Domino server console (Figure 2-48):

```
sh stat domino
```

```
                        Work with Domino Console
                                                          Server: INOTESML01
 Previous subcommands and messages:

     Domino.Cache.Design.Count = 256
     Domino.Cache.Design.DisplaceRate = 20.7669407913497
     Domino.Cache.Design.HitRate = 79.0870621514035
     Domino.Cache.Design.MaxSize = 256
Enter a Domino subcommand.
 ===>
F3=Exit   F5=Refresh   F6=Print   F9=Retrieve
 F17=Top   F18=Bottom   F21=Command line
```

Figure 2-48 The show stat domino command for cache design

To optimize the performance of your Domino HTTP design cache, ensure that *Domino.Cache.Design.Count* is slightly less than *Domino.Cache.Design.MaxSize*. If these statistics are equal, increase the maximum cached design parameter in the HTTP section of the Domino server document by five until *Domino.Cache.Design.Count* is less than *Domino.Cache.Design.MaxSize*. This provides optimal performance for design caching on your Domino HTTP Web site.

Defining cache settings

You can update the cache settings in the Domino server document. Simply click the **Internet Protocols** tab. Then click the **Domino Web Engine** subtab, and go to **Memory Caches** as shown in Figure 2-49.

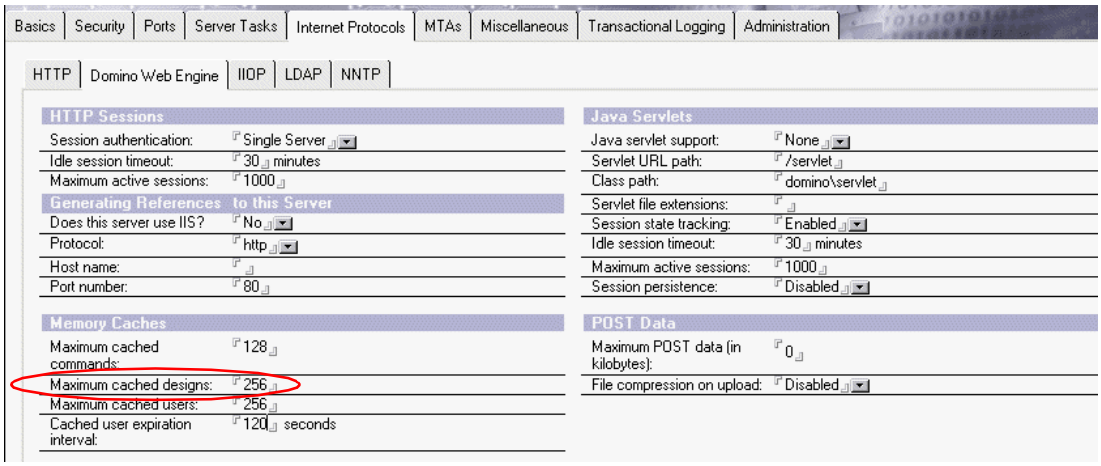


Figure 2-49 Domino server document: Memory Caches

Utilizing HTTP logging

The level of logging that can be achieved within a Domino HTTP server can be extremely detailed if required. Figure 2-50 shows the logging portion of the HTTP section within a Domino server document in the Domino Directory. Click the **Internet Protocols** tab and then click the **HTTP** subtab. Go to **Enable Logging To**.

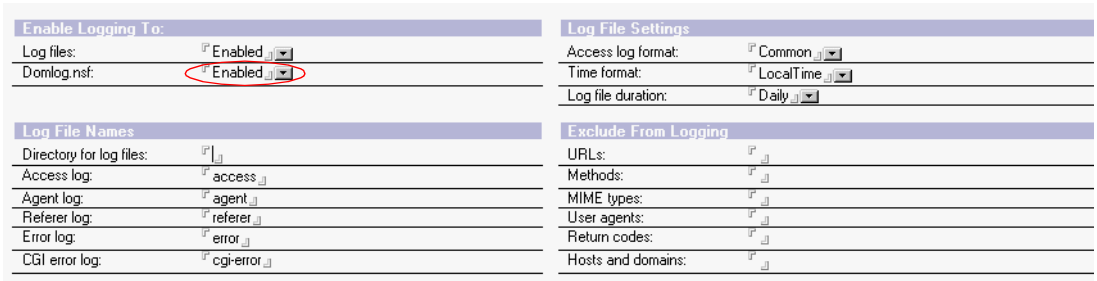


Figure 2-50 Domino server document: Enable Logging To

Note: If logging is not required by your organization, it should not be used except for troubleshooting. This optimizes the performance of the HTTP server and should be only used temporarily.

Other Domino server setting recommendations

You should also consider the following Domino server settings:

- Under the **Internet Protocols** tab and the **HTTP** subtab in the Domino server document, set “Run Web agents concurrently” to **Enable**. This also should be set for most Web applications.
- Under the **Basics** tab, set “Optimize HTTP performance based on the following primary activity” to **Both Mail and Applications**.

2.8.5 iSeries server tuning

You can alter Domino job priorities permanently on iSeries servers by creating a new class object for that job. You cannot change the priority of the SERVER job itself. See the *Domino for the iSeries Administrator’s Guide* for further information.

You can find further iSeries Domino performance information on the Web at:
http://www.iseries.ibm.com/developer/domino/perform/index.html

2.8.6 Network bandwidth requirements

Network bandwidth use by the iNotes Web Access client can vary considerably. During testing, we observed bandwidth use as low as 2.7 Kbps per user with short mail messages on a small private 100 Mb network. In diverse, enterprise networks, however, bandwidth use may be as high as 6 to 8 Kbps per user. Estimating the proportion of active users/connections to registered users and understanding server workload is a very important step in calculating requirements for network bandwidth. After your Domino server is configured and running, you can monitor actual utilization by using a network sniffer tools.

For network sizing, you *cannot* assume the total network data rate for available bandwidth because there is also overhead in networking protocol in various network topologies (LAN/MAN/WAN). For example, in a T1 WAN connection (1.5 Mbps), allowing overhead for network protocol at 50%, the expected practical utilization bandwidth is:

```
1,500 Kbps X 50% = 750 Kbps
750 Kbps / 6Kbps per user = 125 concurrent users
```

It includes a dedicated 100 Mbps LAN environment that allows for the overhead of networking protocol at 60%. The expected practical utilization bandwidth is:

```
100 Mbps X 60% = 60,000 Kbps
60,000 Kbps / 6 Kbps per user = 10,000 concurrent users
```

However, 10,000 concurrent users in a single 100 Mbps would saturate this network segment. We recommend that you use other alternatives such as Gigabit Ethernet adapters or multiple 100 Mbps Ethernet adapters connected to multiple network segments to the clients.

Note: The percent of concurrent users, characteristic of iNotes Web Access, is different from the Notes client. 40% to 60% concurrent users in a Notes client may reflect to 10 to 15% concurrent in iNotes Web Access. Offline access with lower frequency of synchronization also decreases the network bandwidth utilization dramatically.

2.8.7 Sizing examples

This section describes some sizing scenarios for the iSeries platform. All of these examples have been generated using the IBM Workload Estimator tool.

The IBM Workload Estimator for iSeries provides sizing recommendations for an iSeries server or an AS/400e running one or more workloads associated with e-business or collaboration, such as Domino, Java, or WebSphere. You can use the Workload Estimator to size a brand new iSeries server or AS/400e with all new workloads, or to size the upgrade of an existing system (with the original workload set or any additions) to a new system.

The Workload Estimator recommends the model, processor, interactive feature, memory, and DASD necessary for a mixed set of workloads. To use the Workload Estimator, you select one or more workloads and answer a few questions about each workload. Based on your answers, the Workload Estimator generates a recommendation and shows the predicted CPU utilization of the recommended system in graphical format. You can then print the final results. Advanced users have the option to provide more specific information for particular workloads, thereby resulting in a more accurate estimate.

We created some examples of sizing configurations, according to the following assumptions:

- 1000, 2000, 3000, 5000 and 10,000 iNotes Web Access user scenarios

  Note: This is a commonly used measurement for comparing Domino capacity across different Domino server platforms. A typical rule of thumb when equating simple mail users to “real world” or typical mail users is to divide by three.

  We ran several scenarios using these numbers of iNotes Web Access users, which are shown at the end of this chapter:

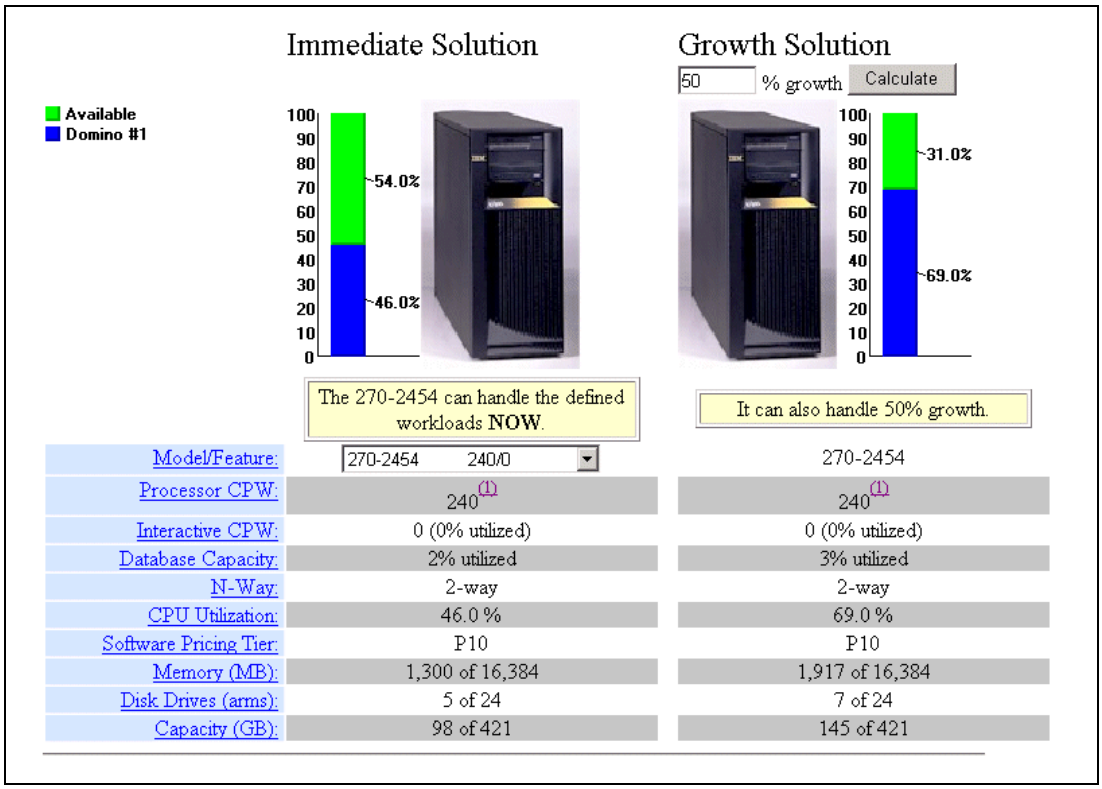
  - Figure 2-51 shows the results of a 1,000 iNotes Web Access user scenario.
  - Figure 2-52 shows the results of a 2,000 iNotes Web Access user scenario.
  - Figure 2-53 on page 73 shows the results of a 3,000 iNotes Web Access user scenario.
  - Figure 2-54 on page 73 shows the results of a 5,000 iNotes Web Access user scenario.
  - Figure 2-55 on page 74 shows the results of a 10,000 iNotes Web Access user scenario.
- All scenarios assume three user types:
  - **10% of casual mail users**: A casual mail user uses e-mail only, without using the calendar and scheduling features. The casual user rarely, if ever, sends or receives e-mail attachments. In our experience, even if users start as “casual”, they quickly learn more about the product and advance to becoming moderate users very quickly.

    For correct sizing, we encourage you not to overestimate the number of casual users you will have. A simple mail user for performance estimating purposes has the following characteristics:

    In a 15 minute period, they read five documents, update two documents, delete two documents, view one document and scroll through it, open and close one database, open and close one view, send a mail message to an average of three people no more frequently than every 90 minutes.
  - **70% moderate mail users**: This type of user uses e-mail more heavily with the addition of the calendar and scheduling features. They also perform the same script as a casual user in about half of the time.
  - **20% heavy mail users**: What distinguishes a heavy user from a moderate user is both the complexity of tasks performed and the level of dependence on Notes/Domino. Think of a heavy user as someone who uses Notes/Domino constantly for core job functions. For example, a heavy user might be a secretary who manages several calendars and often uses free time search to schedule meetings, a technical expert who constantly monitors and updates discussion databases, or a manager who receives many “workflow” requests for approval. For mail users with databases larger than 200 MB, it may be appropriate to use the heavy mail user type. Typically, a larger mail database size is indicative of more complex mail processing.
- 50% of all registered users accessing concurrently.
- 75 Mb average size of mail file.

All sizing examples also provide a solution that considers 50% growth.

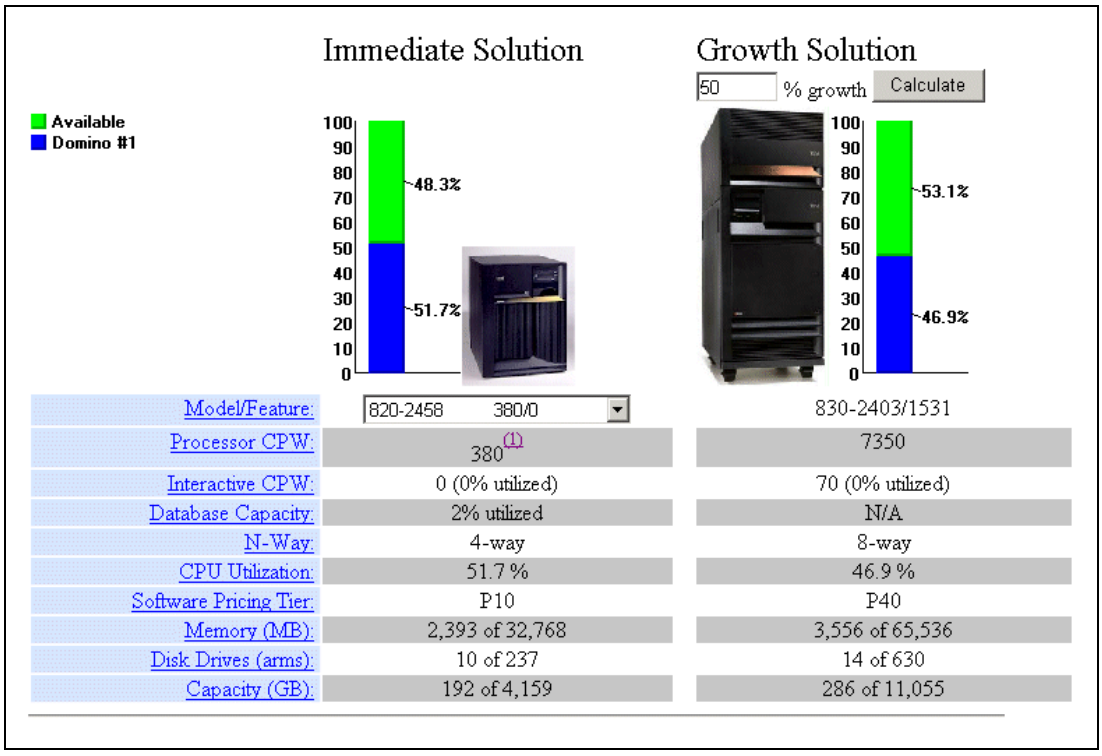
Scenario 1: 1,000 iNotes Web Access users



Model/Feature:	270-2454 240/0	270-2454
Processor CPW:	240(1)	240(1)
Interactive CPW:	0 (0% utilized)	0 (0% utilized)
Database Capacity:	2% utilized	3% utilized
N-Way:	2-way	2-way
CPU Utilization:	46.0 %	69.0 %
Software Pricing Tier:	P10	P10
Memory (MB):	1,300 of 16,384	1,917 of 16,384
Disk Drives (arms):	5 of 24	7 of 24
Capacity (GB):	98 of 421	145 of 421

Figure 2-51 Sizing for 1,000 iNotes Web Access users

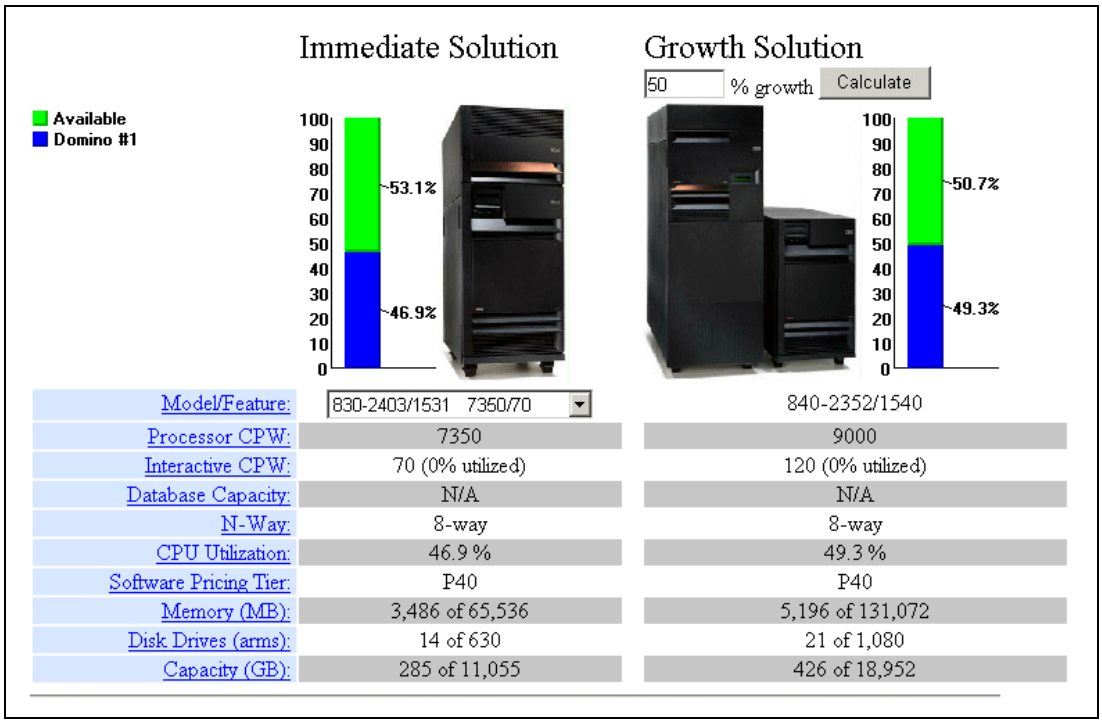
Scenario 2: 2,000 iNotes Web Access users



Model/Feature:	820-2458 380/0	830-2403/1531
Processor CPW:	380(1)	7350
Interactive CPW:	0 (0% utilized)	70 (0% utilized)
Database Capacity:	2% utilized	N/A
N-Way:	4-way	8-way
CPU Utilization:	51.7 %	46.9 %
Software Pricing Tier:	P10	P40
Memory (MB):	2,393 of 32,768	3,556 of 65,536
Disk Drives (arms):	10 of 237	14 of 630
Capacity (GB):	192 of 4,159	286 of 11,055

Figure 2-52 Sizing for 2,000 iNotes Web Access users

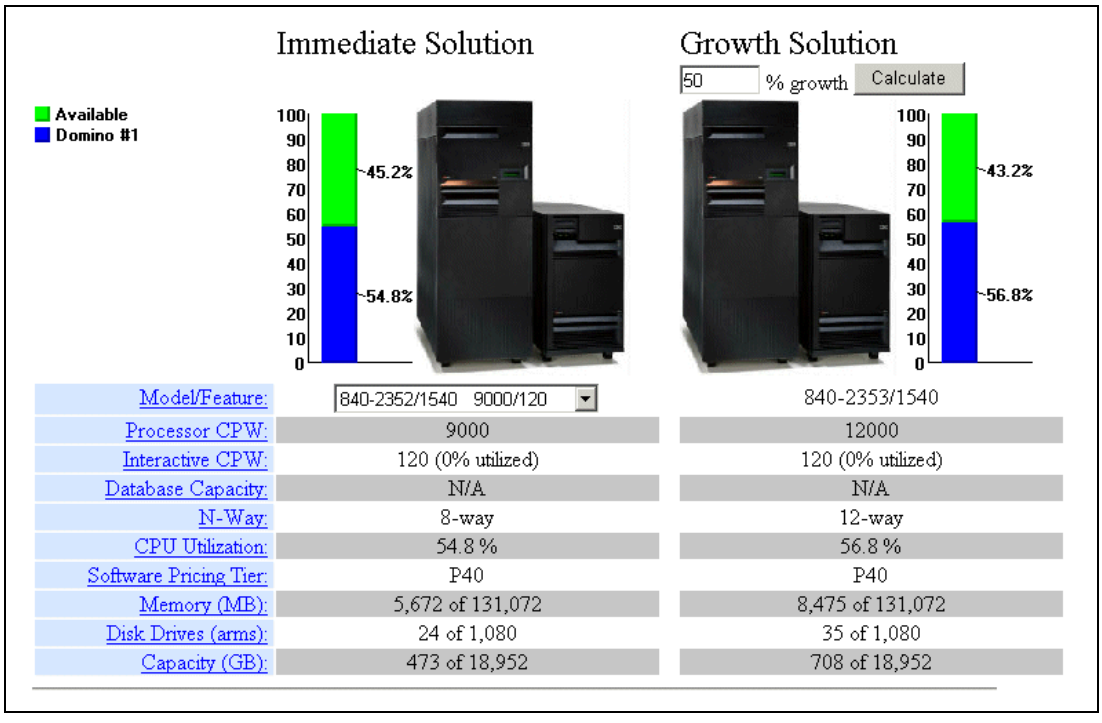
Scenario 3: 3,000 iNotes Web Access users



	Immediate Solution	Growth Solution
Model/Feature:	830-2403/1531 7350/70	840-2352/1540
Processor CPW:	7350	9000
Interactive CPW:	70 (0% utilized)	120 (0% utilized)
Database Capacity:	N/A	N/A
N-Way:	8-way	8-way
CPU Utilization:	46.9 %	49.3 %
Software Pricing Tier:	P40	P40
Memory (MB):	3,486 of 65,536	5,196 of 131,072
Disk Drives (arms):	14 of 630	21 of 1,080
Capacity (GB):	285 of 11,055	426 of 18,952

Figure 2-53 Sizing for 3,000 iNotes Web Access users

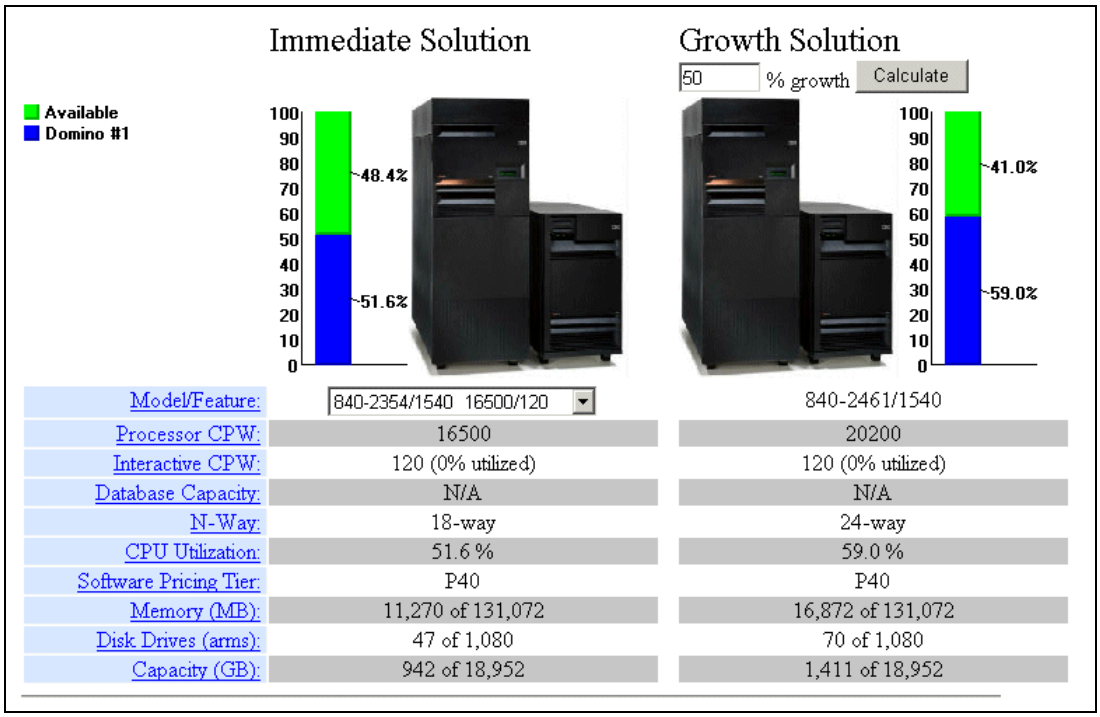
Scenario 4: 5,000 iNotes Web Access users



	Immediate Solution	Growth Solution
Model/Feature:	840-2352/1540 9000/120	840-2353/1540
Processor CPW:	9000	12000
Interactive CPW:	120 (0% utilized)	120 (0% utilized)
Database Capacity:	N/A	N/A
N-Way:	8-way	12-way
CPU Utilization:	54.8 %	56.8 %
Software Pricing Tier:	P40	P40
Memory (MB):	5,672 of 131,072	8,475 of 131,072
Disk Drives (arms):	24 of 1,080	35 of 1,080
Capacity (GB):	473 of 18,952	708 of 18,952

Figure 2-54 Sizing for 5,000 iNotes Web Access users

Scenario 5: 10,000 iNotes Web Access users



	Immediate Solution	Growth Solution
Model/Feature:	840-2354/1540 16500/120	840-2461/1540
Processor CPW:	16500	20200
Interactive CPW:	120 (0% utilized)	120 (0% utilized)
Database Capacity:	N/A	N/A
N-Way:	18-way	24-way
CPU Utilization:	51.6 %	59.0 %
Software Pricing Tier:	P40	P40
Memory (MB):	11,270 of 131,072	16,872 of 131,072
Disk Drives (arms):	47 of 1,080	70 of 1,080
Capacity (GB):	942 of 18,952	1,411 of 18,952

Figure 2-55 Sizing for 10,000 iNotes Web Access users

3

Security

This chapter discusses some security issues that are important to consider when setting up iNotes Web Access. It also covers some platform-specific considerations and features for the iSeries server.

The topics in this chapter include:

- General security considerations
- Cryptographic adapter
- Web single sign-on
- Firewall considerations
- Using LDAP for authentication

3.1 General security considerations

This section discusses topics related to security setup and administration for iNotes Web Access running on Domino for iSeries.

3.1.1 Security on iSeries server

iSeries security features protect the Integrated File System (IFS). Security features, such as user profiles and group profiles, control access to the iSeries server. Special authorization is given to access specific resources such as libraries, programs, and files.

iSeries security concepts are similar to Domino security concepts. These security concepts complement each other. The iSeries security system protects Domino databases from any access outside of Domino. Domino security controls access within Domino for iSeries.

To install Domino for iSeries, you need a user profile with the special authorities of *ALLOBJ (access to all objects) and *SECADM (security administration). To configure a Domino server, you also need the special authorities of *JOBCTL (job control) and *IOSYSCFG (device and communications configuration).

3.1.2 Authentication

One of the first decisions that you need to make regarding security is about the method you are you going to use to authenticate iNotes Web Access users who access the Domino server. Domino offers two different methods:

- Name and password authentication
- Session-based name and password authentication

Both methods offer the ability authenticate users using either the Domino Directory, a secondary Domino directory, or an LDAP directory.

Name and password authentication

Also known as *basic password authentication*, name and password authentication uses a basic challenge/response protocol to ask users for their names and passwords. It then verifies the accuracy of the passwords by checking them against those stored in Person documents in the Domino Directory or any other secondary directories.

This method uses the access control lists (ACLs) of each database to allow or deny access to it and can be customized using the Domino Web Server Application Programming Interface (DSAPI).

How it works

When a user attempts to access the Domino server, the server is checked to see whether anonymous users can access it. If the Domino server allows anonymous access, the database is opened. If it doesn't, the user is prompted for a user name and password.

This user name and password is looked up in the Domino Directory or any other secondary directory configured with Directory Assistance. If the user name and password are found, they are authenticated as that user in Domino.

Next the access control list of the database is checked, and the user name previously provided is compared to the list. If access is allowed (either via groups or individual entry) or if anonymous or default access is allowed, the user is granted access to the database. Otherwise, they are prompted for a user name and password again (Figure 3-1).

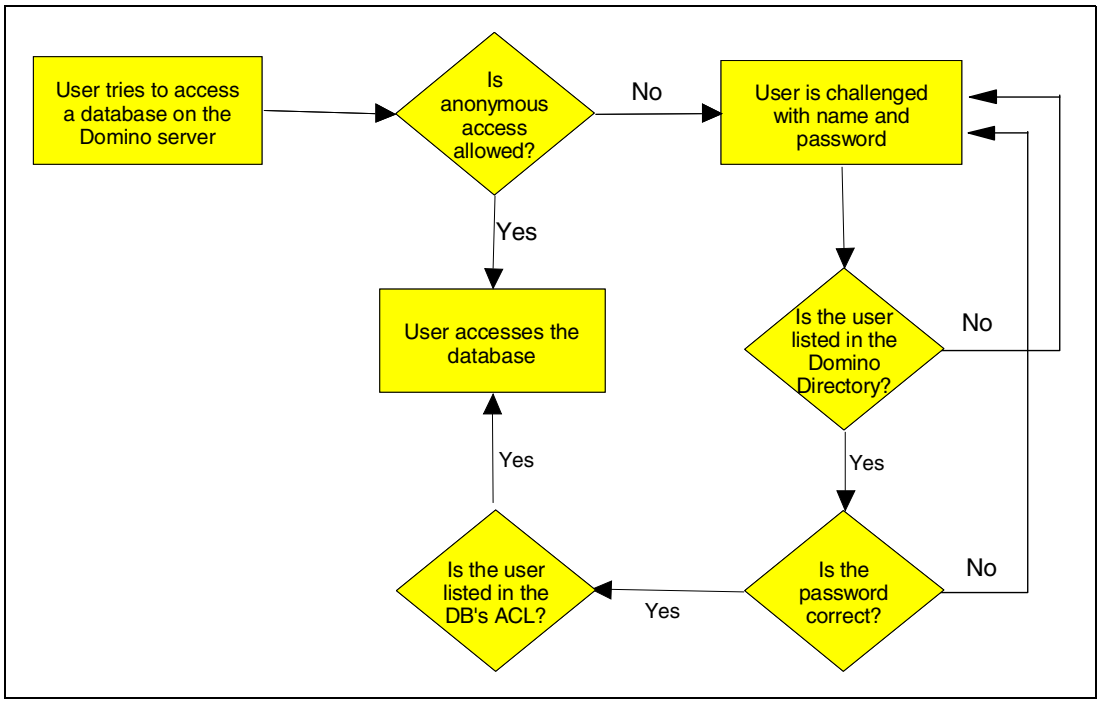


Figure 3-1 Name and password authentication

For detailed information, please refer to the *Domino Administration guide*.

Session-based name and password authentication

Another commonly used method for authentication is to use session-based name and password.

A *session* is a period on which the user is actively logged to the Domino server. Session-based name and password authentication includes additional functionality that is not available with basic name and password authentication. Additional settings can be used to control session-based authentication, such as an idle session time-out (a time after which an inactive user's session will be discarded, therefore forced to log in again). You can also set the number of maximum active sessions on the Domino server.

The Domino Configuration database already has a sample login form, but it can be customized to have additional information or a different look. This customization is done easily using the Domino Designer.

For more information, please refer to the *Domino Administration guide*.

3.1.3 Access control lists

Access control lists define who can access, and to what extent they can access, a Domino database. In the case of iNotes Web Access, they define what users can compose or read e-mail or perform delegated calendaring tasks.

In most cases, it is most common to grant *Manager access* to the owner of the mail database, while using the Lotus Notes client. But regardless of the settings for the owner that were chosen on the Basics tab within the ACL, access to a mail database using a Web browser is *Editor* by default.

This is based on the *Maximum Internet name & password* field in the Advanced access control list settings (Figure 3-2).

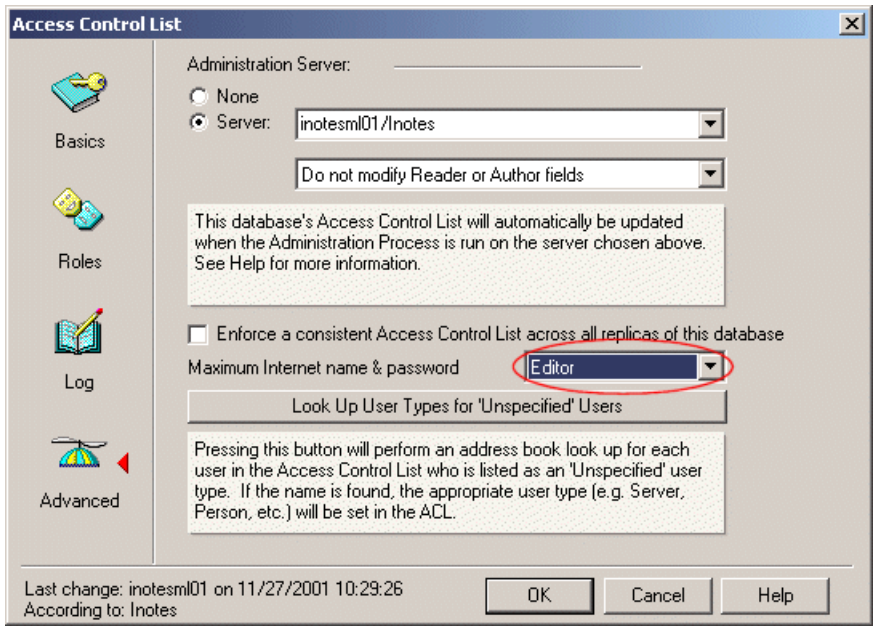


Figure 3-2 Advanced section of the Access Control List

This is enough for most functions. But for other functions, like creating a full-text index, enabling the out of office agent or changing the Internet password, the user needs at least *Designer access*.

Although only users with Manager access can modify the access control list of a database, the iNotes Web Access user can change the delegation profile of a database even if they are not the Manager of it. These changes are performed by the Domino server using the administrative process. An administrative request is issued and logged in the admin4.nsf database, and later on, the administrative process executes it.

For details, refer to the *iNotes Web Access Deployment Guide for Domino 5.0.9* white paper.

3.2 Cryptographic adapter

The IBM PCI Cryptographic Coprocessor technology is offered by IBM as an end product for use in personal computer machines and as features or RPQs in the pSeries (RS/6000), iSeries (AS/400), and zSeries (S/390) servers.

Highlights of the IBM 4758 PCI Cryptographic Coprocessor include:

- Tamper-responding design certified under FIPS PUB 140-1. Suitable for high-security processing and cryptographic operations. The 4758 provides a secure platform on which developers can build secure applications.
- Hardware to perform DES, triple-DES, SHA-1, random number generation, and modular math functions for RSA and similar public-key cryptographic algorithms.
- Secure code loading that enables updating of the software with the Cryptographic Coprocessor installed in application systems.
- IBM Common Cryptographic Architecture (CCA) and PKCS #11 (Cryptoki) implementations as well as custom software options.

A secure coprocessor is a general-purpose computing environment that withstands physical attacks and logical attacks. The device must run the programs that it is supposed to, but they must be unaltered. You must be able to (remotely) distinguish between the real device and application, and a clever impersonator. The coprocessor must remain secure even if adversaries carry out destructive analysis of one or more devices.

Many servers operate in distributed environments where it is difficult or impossible to provide complete physical security for sensitive processing. And, in some applications, the motivated adversary is the end user. You need a device that you can trust even though you cannot control its environment.

Cryptography is an essential tool in secure processing. When your application must communicate with other distributed elements, or assert or ascertain the validity of data it is processing, you will find cryptography is an essential tool.

The cryptographic coprocessor module provides several mechanism classes, with SSL version 3 among them. You can use the cryptographic coprocessor PCI adapter to process an SSL request to the Domino Web server.

3.2.1 Prerequisites

The prerequisites for using the cryptographic adapter on the iSeries server are:

- The country using the cryptographic coprocessor is not on the list of embargoed countries.
- OS/400 option 34, Digital Certificate Manager (5722-SS1) is installed.
- OS/400 option 35, Cryptographic Service Provider (5722-SS1) is installed.
- TCP/IP Connectivity Utilities (5722-TC1) is installed.
- One of the following Cryptographic Access Provider products is installed:
  - Cryptographic Access Provider 128-bit (5722-AC3)
  - Cryptographic Access Provider 56-bit (5722-AC2)
- Feature to order: 4801 (customer installed) or 4802 (CE installed).
- IBM HTTP Server (5722-DG1) is installed.

  Note: At the time this redbook was written, Domino for iSeries only supported the original OS/400 HTTP server, not the Apache server.

- The OS/400 HTTP Admin instance should be started on port 2001 of the iSeries server that is required for setting up the cryptographic coprocessor. Note that:
  - The HTTP Admin instance must be configured to use SSL.
  - The OS/400 Digital Certificate Manager (DCM) must be used to create and assign a certificate to the Admin instance.
- The OS/400 user profile used for configuration must have the *SECADM and *IOSYSCFG special authorities.
- If the customer plans to also implement DOLS for offline support, a separate Domino HTTP server needs to be configured.

3.2.2 How the cryptographic adapter works

The 4758 Cryptographic Coprocessor provides a secure environment for processing encryption and decryption of data. You can use the Cryptographic Coprocessor with OS/400 Digital Certificate Manager to provide secure private key storage, performance assist, and CPU offloading for SSL session establishment cryptographic operations.

3.2.3 Domino plug-in for the OS/400 HTTP server

The Domino plug-in for the OS/400 HTTP server (the original OS/400 HTTP server, not the Apache server) has been available since Domino R5.0.4. Additional setup instructions are in the Domino for AS/400 5.0.4 Release Notes (Readas4.NSF or Readas4.PDF, available from the Notes.Net Document Library at http://www.notes.net/notesua.nsf/).

Domino restrictions

When running Domino on the OS/400 HTTP server, keep in mind these restrictions:

- Domino administration via the WebAdmin application (WebAdmin.NSF) is not supported.
- Automatic Domino restart after a crash is not supported. You must restart the Domino server manually.
- You must end the OS/400 HTTP server before you end the associated Domino server.
- After a Domino server crash, you must end the associated OS/400 HTTP server before you attempt to restart the Domino server.
- Applications that generate URLs that reference a Domino databases by its Universal Notes ID (UNID) instead of its file name (for example, my_db.nsf) are not supported. Domino.Doc is an example of an application that generates URLs in this non-supported format.
- The Domino plug-in for OS/400 HTTP server is not supported with QuickPlace.
- Applications that use Domino Web Server API (DSAPI) filters are not supported. For example, Domino Off-Line Services (DOLS) is a key part of iNotes Web functionality and is not supported with the OS/400 HTTP server.
- The Domino Internet Cluster Manger (ICM) is not supported.
- Client authentication using SSL is not supported.

Reconfiguring the OS/400 HTTP server

You need to define a one-to-one relationship between an existing Domino server and an existing OS/400 HTTP server. Use Table 3-1 to determine your corresponding values.

Table 3-1 OS/400 HTTP and Domino server settings

Example tag	Description
<my OS/400 HTTP server name>	The name of the OS/400 HTTP server instance to be associated with the Domino server (for example, mywebsvr)
<my Domino server name>	The name of the Domino server to be associated with the OS/400 HTTP server (for example, mydomsvr)
<my Domino server data directory>	The name of the Domino server's data directory (for example, /mydomsvr/domino/data)
<my system name>	The Internet host name of the iSeries server

Perform the following steps to reconfigure the OS/400 HTTP server with the Domino plug-in:

1. Start the OS/400 HTTP administration server using the following OS/400 CL command:

   ```
   STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
   ```

2. From a Web browser, access the OS/400 HTTP administration server on port 2001, for example:

   ```
   http://<my system name>:2001
   ```

   You are then prompted for your OS/400 user ID and password.

3. Select **IBM HTTP Server for AS/400** from the AS/400 Tasks main menu.
4. Click the **Configuration and Administration** icon from the left pane.
5. Select your OS/400 HTTP server from the list on the left panel. Make sure the HTTP server type is **Original** (Figure 3-3).

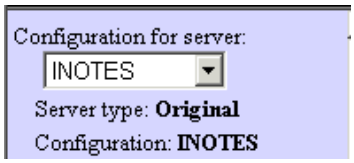


Figure 3-3 Selecting an OS/400 HTTP server configuration

6. Click **Request Processing-> Request Routing** (Figure 3-4).

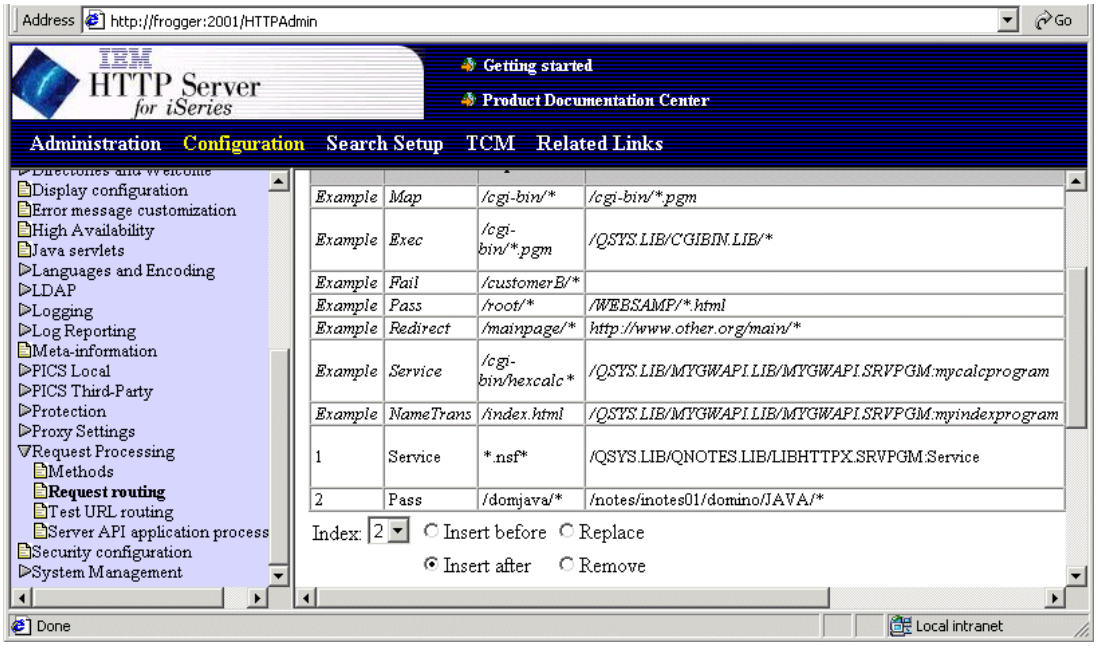


Figure 3-4 OS/400 HTTP server configuration

7. Add the three lines as shown in Table 3-2. This assumes your Domino server uses the default directories for its icons and Java applets.

Table 3-2 Request routing entries

Action	URL template	Replacement file path	CGI conversion mode (in/out)
Service	*.nsf*	/QSYS.LIB/QNOTES.LIB/LIBHTTPX.SRVPGM:Service	%%BINARY/MIXED%%
Pass	/icons/*	/<my Domino server data directory>/domino/icons/*	
Pass	/domjava/*	/<my Domino server data directory>/domino/JAVA/*	

8. Click **Server API Application** and add the two lines shown in Table 3-3.

Table 3-3 Server API Application entries

Step	Application path and file name
ServerInit	/QSYS.LIB/QNOTES.LIB/LIBHTTPX.SRVPGM:ServerInit
ServerTerm	/QSYS.LIB/QNOTES.LIB/LIBHTTPX.SRVPGM:ServerTerm

Reconfiguring the Domino server

Perform the following steps to reconfigure the Domino server to use the OS/400 HTTP server:

1. Update the Domino server so that it uses the OS/400 HTTP server instead of its own internal HTTP server. Use the Change Domino Server (CHGDOMSVR) command, for example:

   ```
   CHGDOMSVR SERVER(<my Domino servername>) WEB(<my OS/400 HTTP server name>)
   ```

   See Figure 3-5.

```
                    Change Domino Server (CHGDOMSVR)

Type choices, press Enter.

Server name  . . . . . > inotes01



Additional server ID:
  ID file's password . . . . . .   *NONE
Time zone  . . . . . .   CST           *SAME, GMT, EST, CST, MST ...
Daylight savings time  . . . . .   *YES          *SAME, *YES, *NO
Web browsers . . . . . .   INOTES        Name, *SAME, *NONE, *ALL...

Internet mail packages . . . . .   *NONE         *SAME,*NONE,*ALL,*IMAP ...
              + for more values
SMTP services  . . . . . .   *SAME         *SAME, *DOMINO, *MSF
Directory services . . . . . .   *NONE         *SAME, *NONE, *ALL, *LDAP...

News readers . . . . . .   *NONE         *SAME, *NONE, *NNTP
                                                                    More...
F3=Exit   F4=Prompt   F5=Refresh   F10=Additional parameters   F12=Cancel
F13=How to use this display        F24=More keys
```

Figure 3-5 CHGDOMSVR command

2. Restart your Domino server.
3. Start the OS/400 HTTP server using the Start TCP/IP Server (STRTCPSVR) command, for example:

   ```
   STRTCPSVR SERVER(*HTTP) HTTPSVR(<my OS/400 HTTP server name>)
   ```

   You should now be able to access the Domino NSF files via the OS/400 HTTP server.

Note: You should end the OS/400 HTTP server before you end the associated Domino server. In the event of an abnormal termination of the Domino server, you must end the associated OS/400 HTTP server before you attempt to restart the Domino server. Please refer to this Web site for more information:
http://www.ibm.com/servers/eserver/iseries/domino/domhttp.htm

3.2.4 Configuring the Cryptographic Coprocessor

In OS/400 V5R1, the configuration wizard allows you to perform all steps that are required to configure the 4758 PCI Cryptographic Coprocessor for iSeries for SSL use. To do this, perform the following steps:

1. From a Web browser, access the OS/400 HTTP administration server on the SSL port of 2010, for example:

   ```
   https://<my system name>:2010
   ```

   You are then prompted for your OS/400 user ID and password.

   Or go to the main Admin page to start a secure session by clicking the **Start secure session** button as shown in Figure 3-6.

Note: For more information on enabling SSL for the Admin server, refer to Appendix C, "Enabling SSL for the ADMIN server instance" in the redbook *IBM @server iSeries Wired Network Security: OS/400 V5R1 DCM and Cryptographic Enhancements*, SG24-6168.

Figure 3-6 4758 Cryptographic Coprocessor configuration page

2. Click **Basic configuration wizard** (Figure 3-7). This launches the configuration wizard.

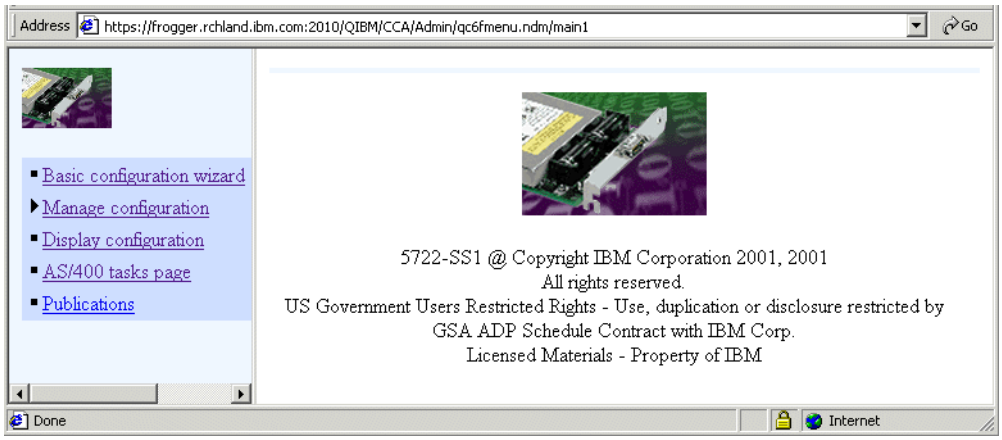


Figure 3-7 4758 Cryptographic Coprocessor basic configuration

3. The Welcome window is the first configuration window shown. It explains all the steps that the wizard guides you through (Figure 3-8). Click **Continue**.

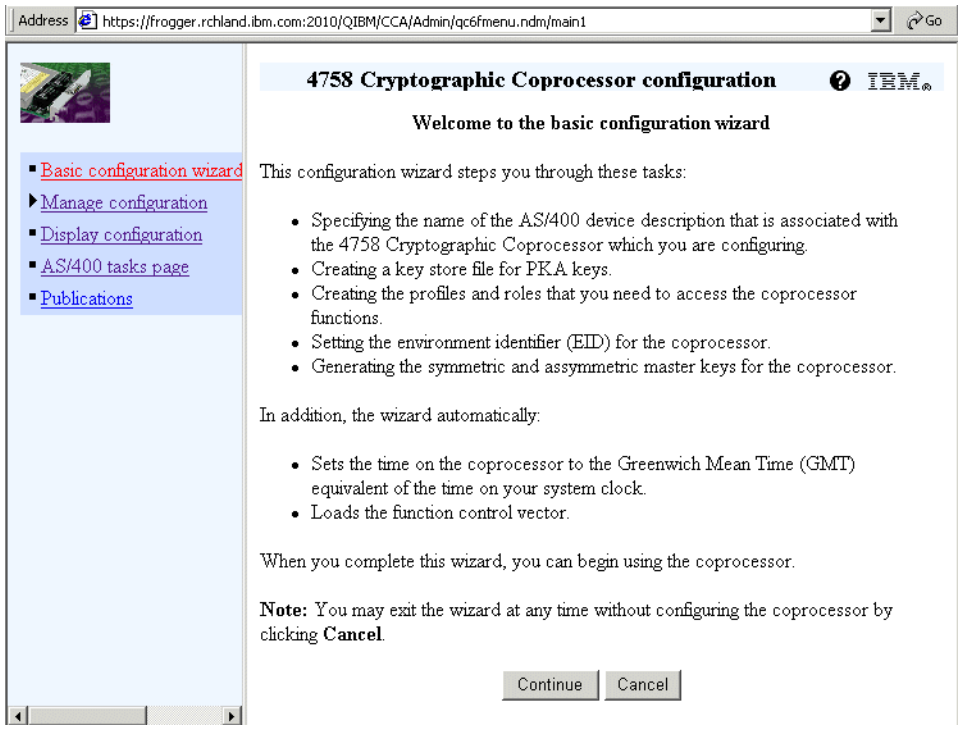


Figure 3-8 4758 Cryptographic Coprocessor Welcome window

4. Select the Resource for which you want to create a new or additional device and click **Continue** (Figure 3-9).

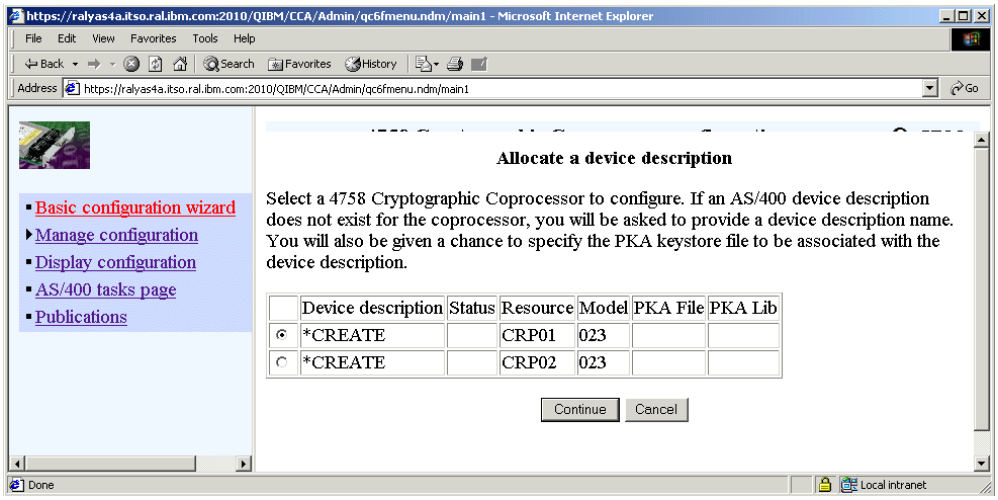


Figure 3-9 Allocate a device description

5. Enter the device description name and click **Continue**. In this case, we used the resource name CRP01, as shown in Figure 3-10.

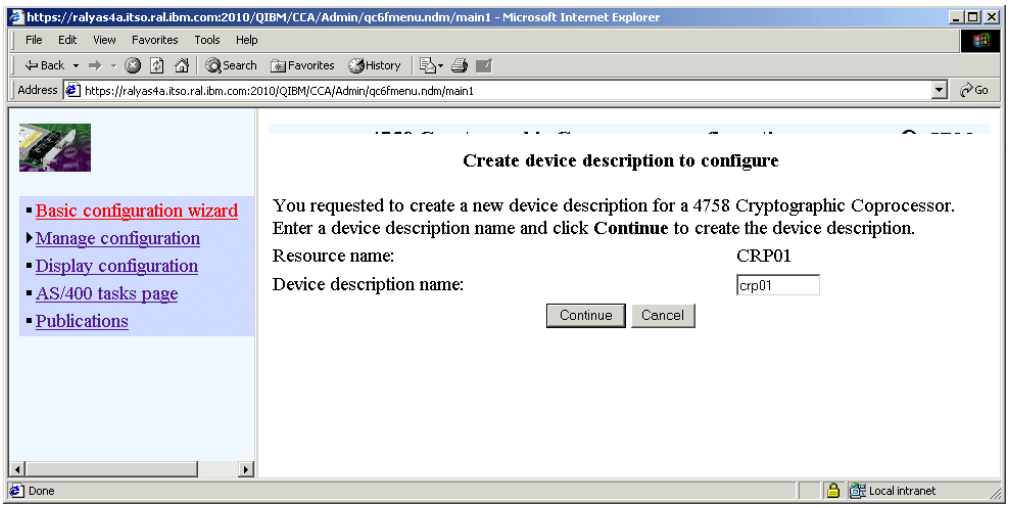


Figure 3-10 Create device description to configure

Note: The device description will automatically be created.

6. Enter the name of the PKA file name and library that holds the PKA key store file (Figure 3-11).

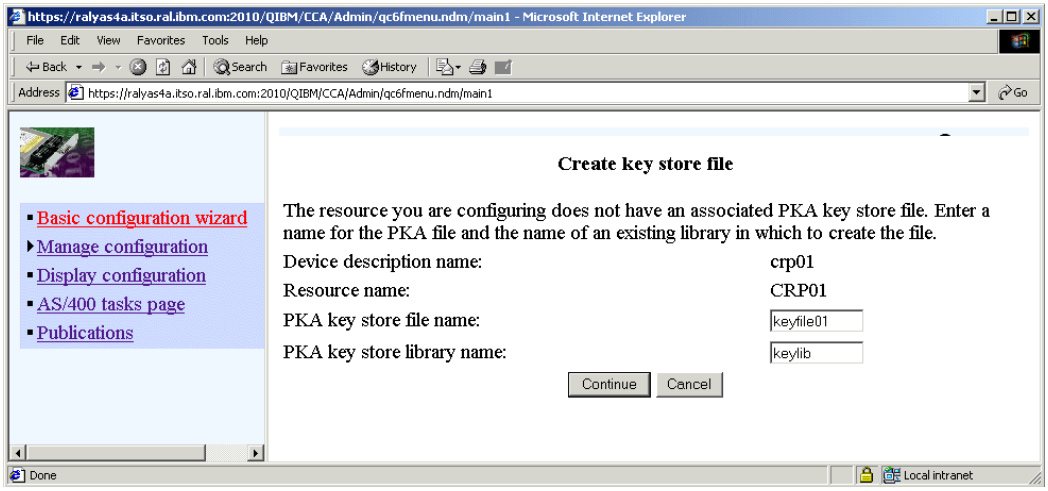


Figure 3-11 Create key store file

Note: PKA key store files are used to store private keys, which are encrypted by the master key of the 4758 Cryptographic Coprocessor. Make sure the library already exists *before* you click Continue.

7. Depending on the number of IT people operating the Cryptographic Coprocessor, click **Create Profile**. Here we chose to create one profile (Figure 3-12).

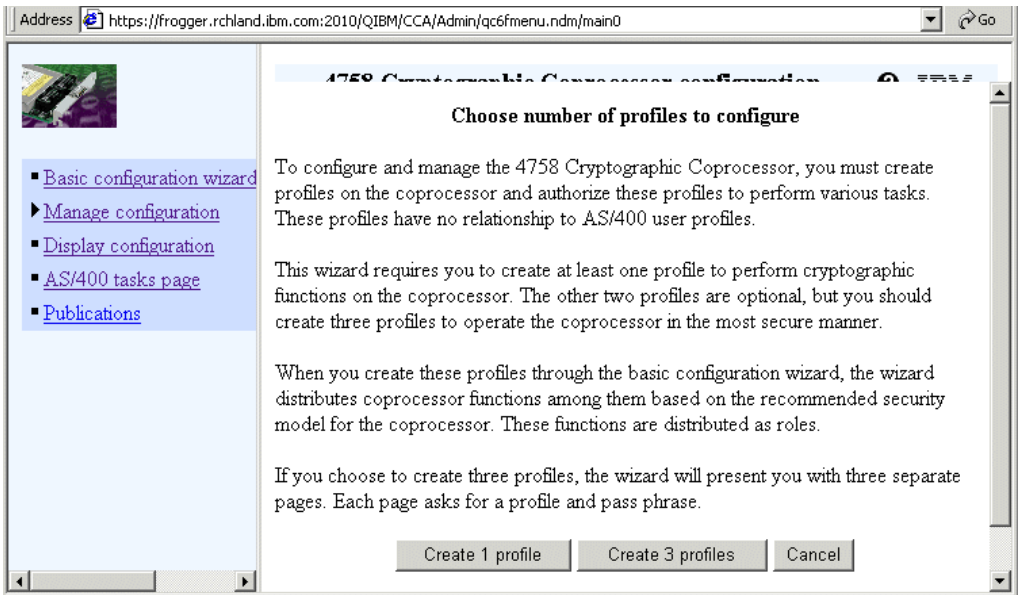


Figure 3-12 Choose number of profiles to configure

8. Enter a pass phrase used to manage the device, for example: `My dog's name is Max` (Figure 3-13). Make sure you store the pass phrase in a secure place.

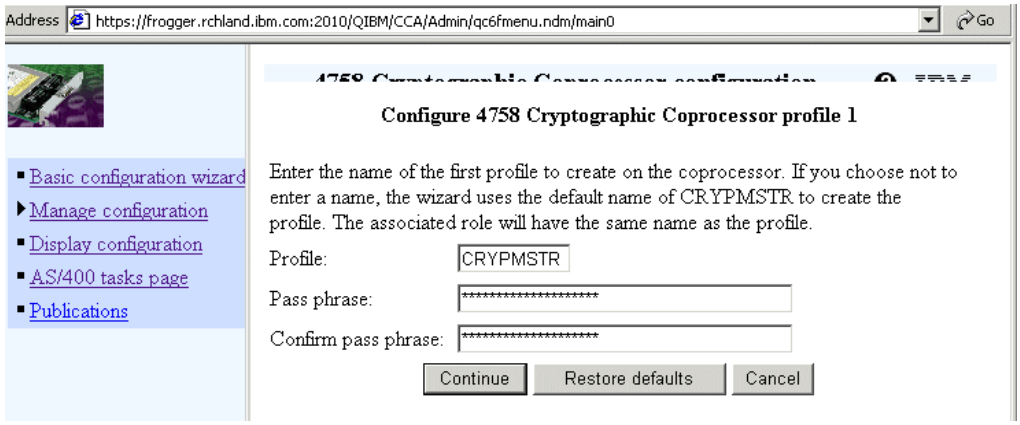


Figure 3-13 Pass phrase

9. Set the unique Environment ID (EID) and click **Continue**. The EID operates like an iSeries system name (Figure 3-14).

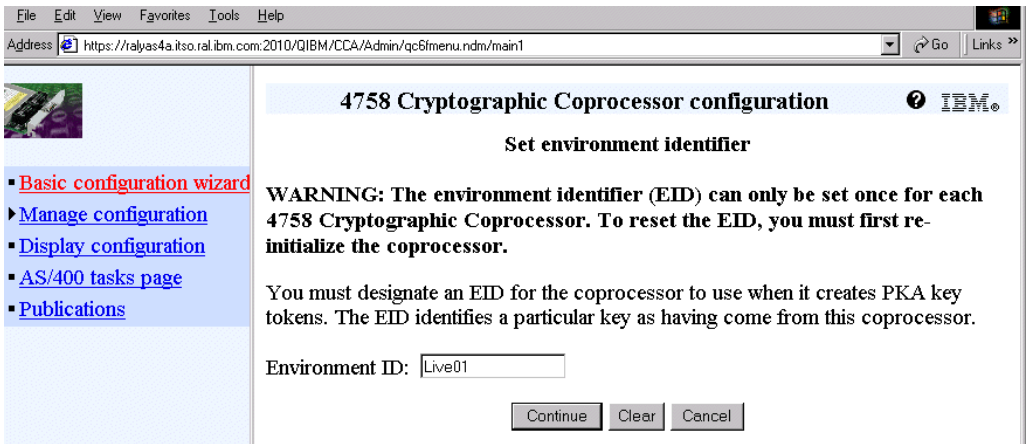


Figure 3-14 Set environment identifier

10. Specify whether you want one person to take care of the master key parts or you want to divide the master key parts between three different people. In Figure 3-15, we chose one key part owner.

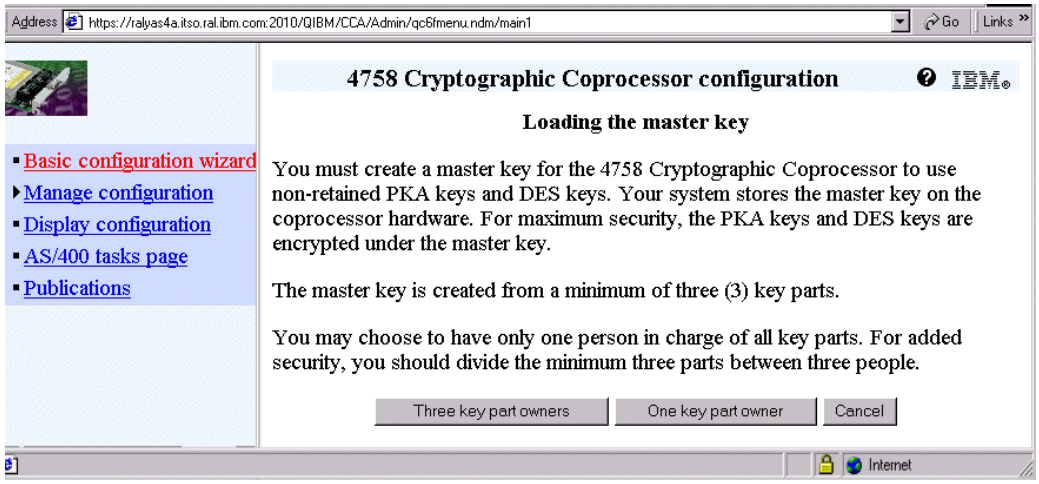


Figure 3-15 Loading the master key

11. The Load all master key parts window shows all parts of the master key. After you write down the information, click **Continue** (Figure 3-16).

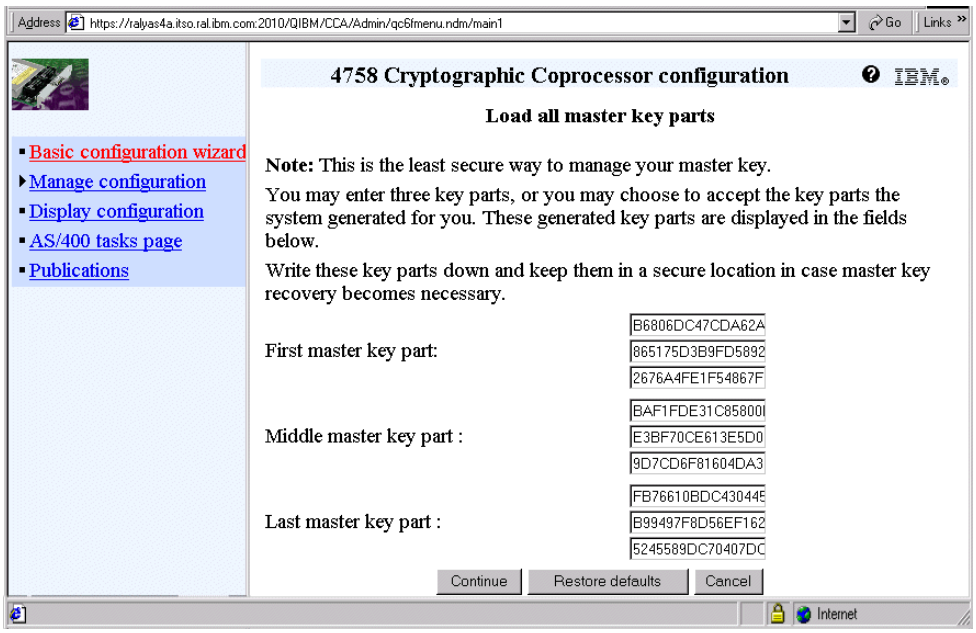


Figure 3-16 Load all master key parts

> **Note:** Make sure to write down the master key for future reference and treat it as a security device that should not be compromised.

12. Verify the configuration information and then click **Configure** (Figure 3-17).

Figure 3-17 Verify configuration information

13. Click **OK** to close the information message window. The wizard creates the profiles and sets configuration values (Figure 3-18).

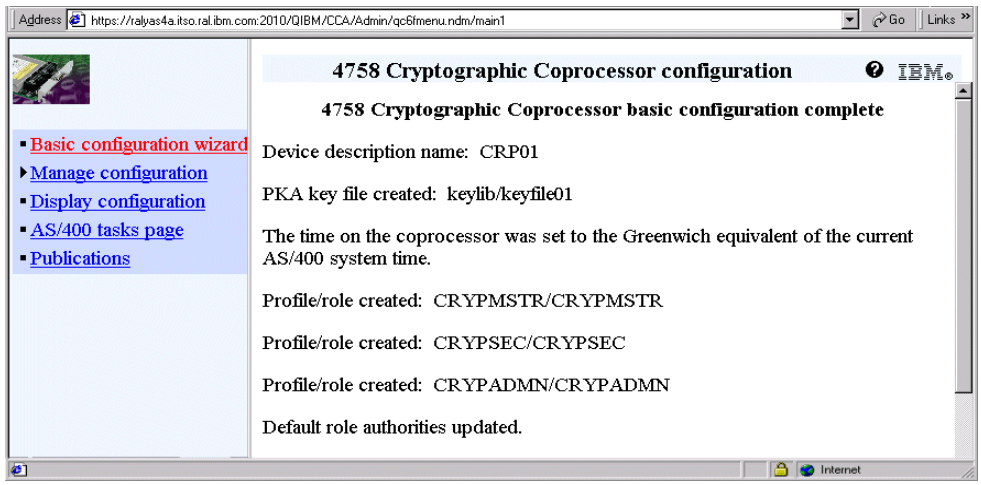


Figure 3-18 Basic Cryptographic Coprocessor configuration complete

3.2.5 Configuring Digital Certificate Manager for SSL hardware cryptography

Using the 4758 Cryptographic Coprocessor for improving performance during SSL handshakes requires Digital Certificate Manager (DCM) to perform the necessary configuration of creating and assigning certificates applications. In this case, we used our OS/400 HTTP server instance for the Domino server.

The following steps guide you through the various DCM configuration steps that enable the 4758 Cryptographic Coprocessor to perform parts of the SSL handshake:

1. Start the AS/400 Tasks page using a Web browser and entering the following URL:

   `http://<my system name>:2001`

   Note: *<my system name>* represents your iSeries host name.

2. Click **Digital Certificate Manager** to start DCM.

3. From the navigation pane, click **Select a certificate store**.
4. Select ***SYSTEM** for the certificate store and then click **Continue** (Figure 3-19).

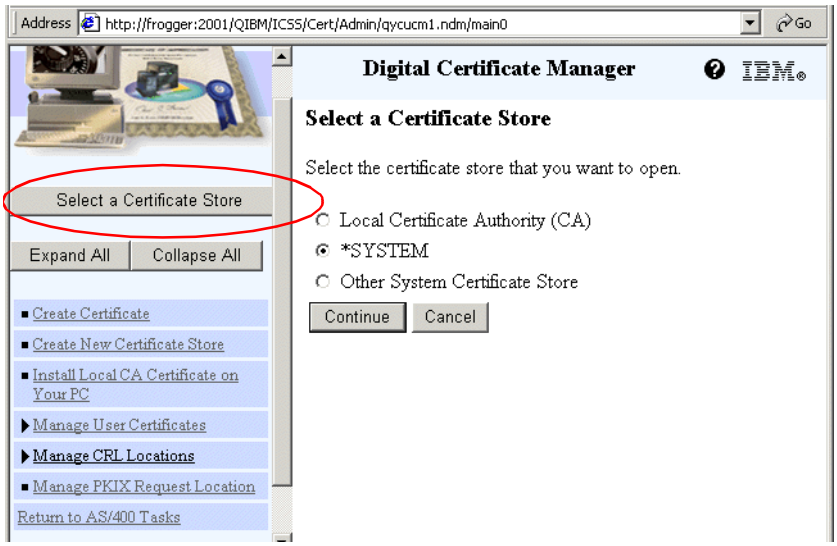


Figure 3-19 Select a Certificate Store

5. Enter the Certificate Store password and click **Continue**.
6. From the navigation pane on the left, click **Create Certificate**.
7. Select **Server or client certificate** and click **Continue**.
8. Select the type of Certificate Authority (CA) you are going to use, either Local or other, and click **Continue**. In our example here, we used Local as shown in Figure 3-20.

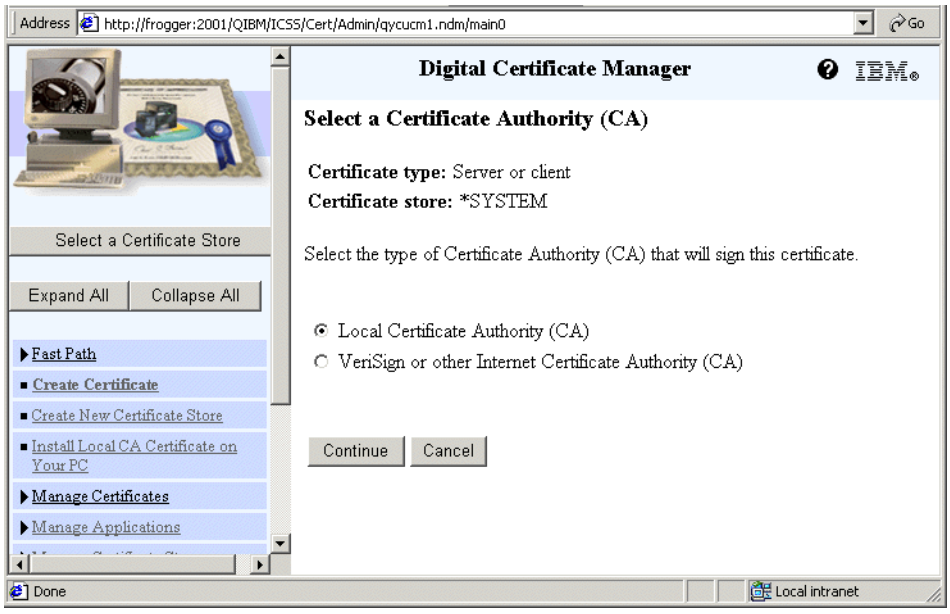


Figure 3-20 Select a Certificate Authority (CA)

Note: If you choose an Internet Certificate Authority, you have to import the signed certificate from the service provider.

9. From the Select a Key Storage Location window, you choose where the private keys will be stored. To use the Cryptographic Coprocessor to perform SSL, you need to specify **Hardware encrypted** and click **Continue** (Figure 3-21).

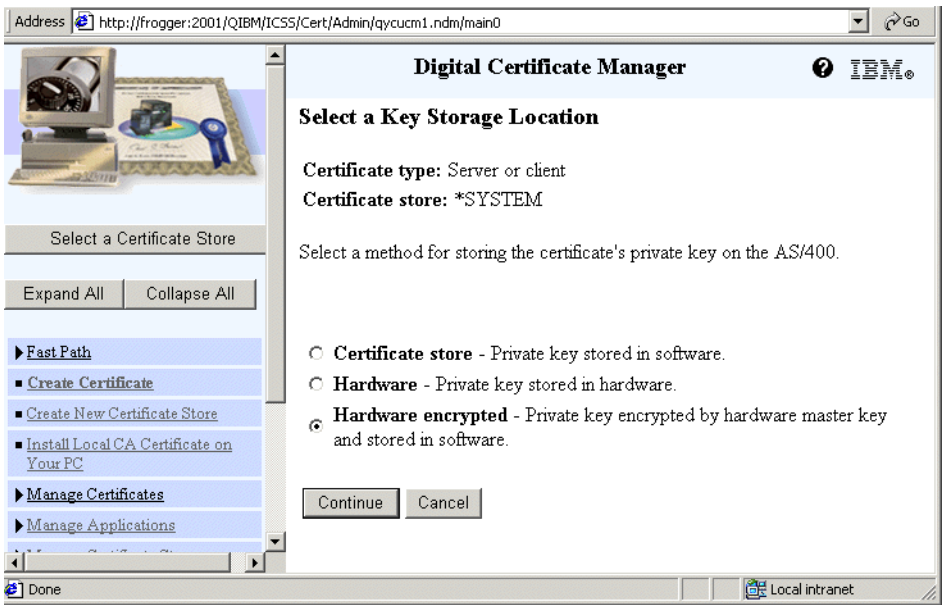


Figure 3-21 Select a Key Storage Location

10. Select a Cryptographic Device Description that lets you specify which coprocessors will be used to generate the private key. In our example, we selected **CRPO1**. Click **Continue** (Figure 3-22).

Figure 3-22 Select a Cryptographic Device Description

Note: If you have multiple coprocessors installed in your system and they are grouped, you can specify any coprocessor in the group to create the private key.

11. If you have multiple coprocessors, you can select to share the load between additional configured Cryptographic devices. Select **CRP02** if more coprocessors are available, and click **Continue** (Figure 3-23).

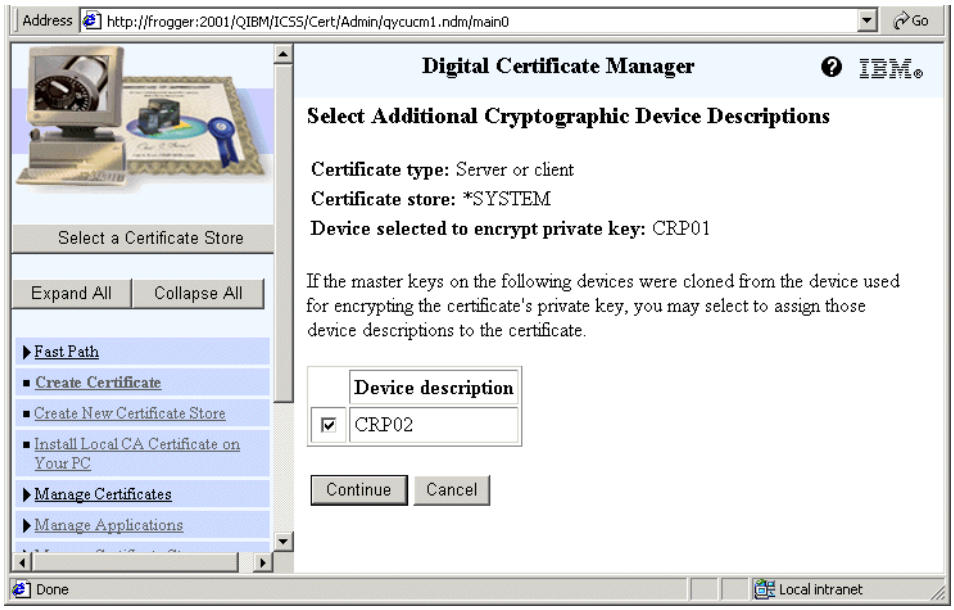


Figure 3-23 Select Additional Cryptographic Device Descriptions

12. Fill out the certificate request data and click **Continue** (Figure 3-24).

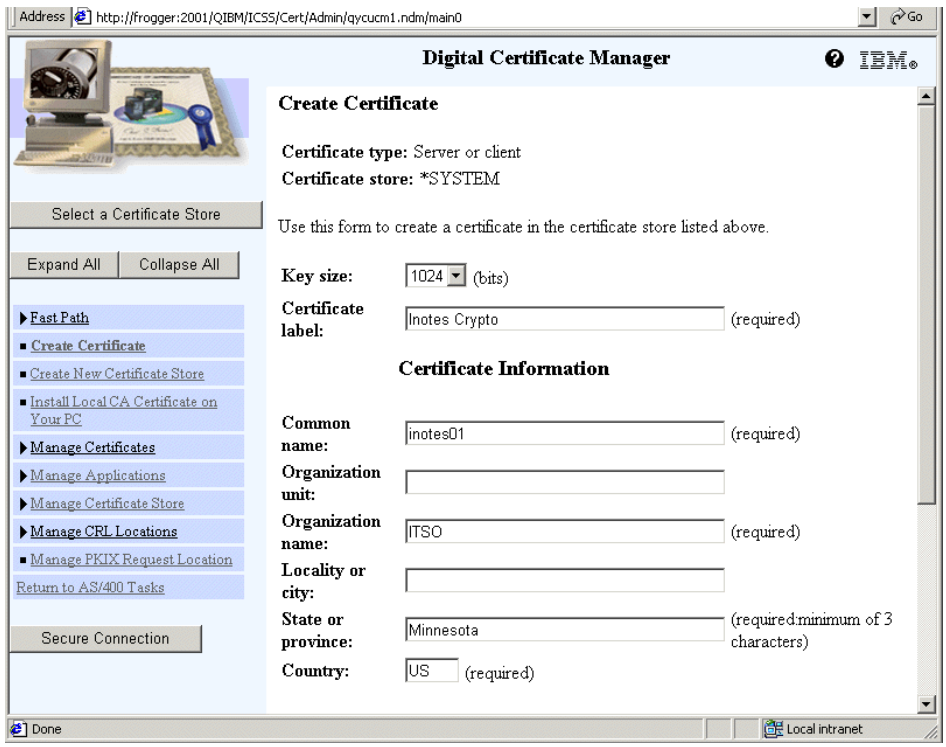


Figure 3-24 Create Certificate

13. Assign the new certificate to the OS/400 HTTP server that we are using for our Domino server. In Figure 3-25, we assigned the certificate to the OS/400 HTTP server. Click **Continue**.

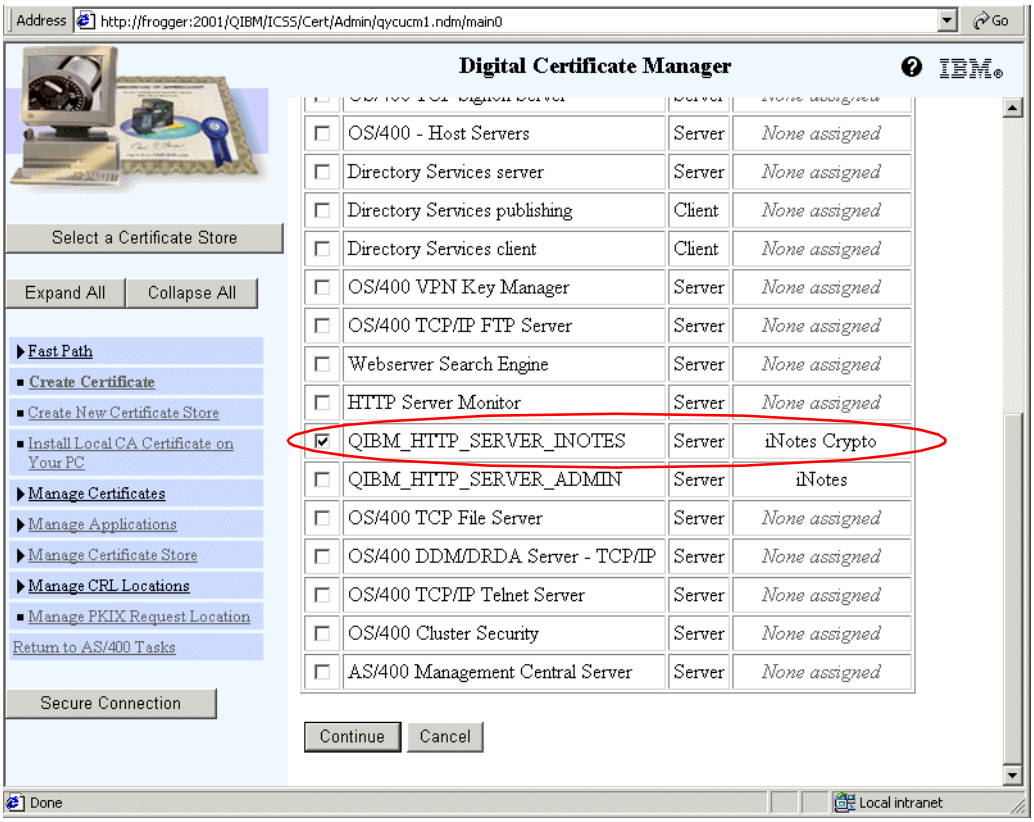


Figure 3-25 Assigning a certificate to the application

This completes the configuration process of certificates in DCM that will be used by the 4758 Cryptographic Coprocessor. For more information regarding configuring multiple coprocessors and updating certificates or updating devices, refer to Chapter 4, “Using hardware cryptography support for SSL/TLS,” in *IBM @server iSeries Wired Network Security: OS/400 V5R1 DCM and Cryptographic Enhancements*, SG24-6168.

3.2.6 Verifying the cryptographic coprocessor

Once the certificate is assigned to the OS/400 HTTP server, you need to verify that the cryptography devices are active and assigned to your OS/400 HTTP server. To verify the devices, perform the following steps:

1. Restart your OS/400 HTTP server using the following OS/400 CL commands:

```
ENDTCPSVR SERVER(*HTTP) HTTPSVR(<my OS/400 HTTP server name>)
STRTCPSVR SERVER(*HTTP) HTTPSVR(<my OS/400 HTTP server name>)
```

2. To make sure the OS/400 HTTP server is running, enter the following OS/400 CL command:

```
WRKACTJOB SBS(QHTTPSVR) JOB(<my OS/400 HTTP server name>)
```

   In Figure 3-26, our OS/400 HTTP server is named INOTES.

```
                          Work with Active Jobs                    FROGGER
                                                                12/04/01  14:31:49
 CPU %:     .3     Elapsed time:   00:51:03     Active jobs:   192

 Type options, press Enter.
   2=Change   3=Hold   4=End   5=Work with   6=Release   7=Display message
   8=Work with spooled files   13=Disconnect ...

 Opt  Subsystem/Job  User        Type  CPU %  Function        Status
        INOTES       QTMHHTTP    BCH      .0  PGM-QZHBHTTP     CNDW
        INOTES       QTMHHTTP    BCI      .0  PGM-QZHBHJOB     TIMW
        INOTES       QTMHHTTP    BCI      .0  PGM-QZHBHJOB     TIMW
        INOTES       QTMHHTTP    BCI      .0  PGM-QZHBHJOB     TIMW
        INOTES       QTMHHTTP    BCI      .0  PGM-QZHBHJOB     TIMW

Parameters or command
===>
 F3=Exit   F5=Refresh       F7=Find      F10=Restart statistics
 F11=Display elapsed data   F12=Cancel   F23=More options   F24=More keys
```

Figure 3-26 Work with Active Jobs display

3. Make sure that the SSL port is listening. From the command line (Figure 3-27), issue either of the following commands:

   ```
   WRKTCPSTS OPTION(*CNN)
   NETSTAT OPTION(*CNN)
   ```

```
                     Work with TCP/IP Connection Status
                                                          System:   FROGGER
 Type options, press Enter.
   3=Enable debug   4=End   5=Display details   6=Disable debug
   8=Display jobs

      Remote           Remote     Local
 Opt  Address          Port       Port       Idle Time  State
      *                *          as-sign >  165:54:34  Listen
      *                *          www-http   000:17:59  Listen
      *                *          https      000:17:59  Listen
      *                *          1352       027:02:05  Listen
More...
 F5=Refresh   F11=Display byte counts   F13=Sort by column
 F14=Display port numbers   F22=Display entire field   F24=More keys
```

Figure 3-27 Work with TCP/IP Connection Status display

4. Enter option **5** (Display details) next to *https* to confirm that SSL is bound to the same port that your Domino server is using (Figure 3-28).

```
                      Display TCP Connection Status
                                                          System:   FROGGER
Connection identification:
  Remote host name  . . . . . . . . . . . . . . . :
    Remote internet address . . . . . . . . . . . :     *
    Remote port . . . . . . . . . . . . . . . . . :     *
  Local host name . . . . . . . . . . . . . . . . :   INOTES01
    Local internet address  . . . . . . . . . . . :     1.1.1.108
    Local port  . . . . . . . . . . . . . . . . . :     https
  Associated user profile . . . . . . . . . . . . :   QTMHHTTP
TCP programming interface information:
  State . . . . . . . . . . . . . . . . . . . . . :   Listen
  Connection open type  . . . . . . . . . . . . . :   Passive
Timing information:
  Idle time . . . . . . . . . . . . . . . . . . . :   000:25:52.428
    Last activity date/time . . . . . . . . . . . :     12/04/01  14:22:39
  Round-trip time . . . . . . . . . . . . . . . . :   .000
  Round-trip variance . . . . . . . . . . . . . . :   .075

                                                                        More...
Press Enter to continue.
F3=Exit      F5=Refresh   F6=Print      F8=Display jobs   F9=Command line
F12=Cancel   F14=Display port numbers   F24=More keys
```

Figure 3-28 Display TCP/IP Connection Status

5. Verify that the Cryptography Coprocessor devices are varied on and are associated with your OS/400 HTTP server application (Figure 3-29). To do this, enter the command:

```
WRKCFGSTS CFGTYPE(*DEV) CFGD(*CRP)
```

```
                       Work with Configuration Status               FROGGER
                                                          12/04/01  14:59:58
Position to  . . . . .              Starting characters

Type options, press Enter.
  1=Vary on   2=Vary off   5=Work with job   8=Work with description
  9=Display mode status    13=Work with APPN status...

Opt  Description       Status               -------------Job--------------
     CRP01            ACTIVE               INOTES      QTMHHTTP    038367
     CRP02            ACTIVE               INOTES      QTMHHTTP    038367


Parameters or command
 ===>
F3=Exit   F4=Prompt   F12=Cancel   F23=More options   F24=More keys
```

Figure 3-29 Working with the status of cryptographic devices

3.3 Web single sign-on

Attention: Web single sign-on (SSO) is not supported in the current release of DOLS. If SSO is enabled, users will not be able to synchronize any offline subscriptions.

Web single sign-on (SSO) allows a Web browser user to log on once to a Domino server and then access any other Domino servers in the same domain without logging in again. You can set up session-based authentication for multiple servers; this accomplishes single sign-on.

Users are challenged for username and password only once, even if they are redirected to different Domino servers in the same domain.

To enable single sign-on, perform the following steps:

1. Start the Domino Administrator client.
2. Click the **Configuration** tab.
3. You have to create a Web SSO configuration document. In the Actions menu bar, click the **Web...** option and then select **Create Web SSO Configuration** from the list (Figure 3-30).

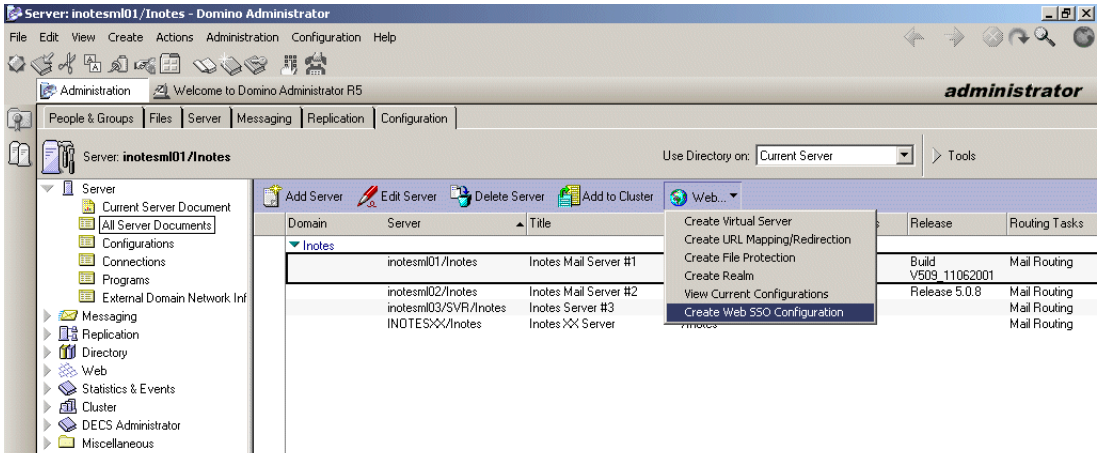


Figure 3-30 Create Web SSO Configuration document

4. In the new Web SSO Configuration document, select **Keys...-> Create Domino SSO Key** from the pull-down menu (Figure 3-31).

Figure 3-31 Create Domino SSO Key

5. Specify the token expiration, in minutes, in the Expiration field.
6. In the Token Domain field, enter the DNS domain name, for example `itso.ibm.com` for which the tokens will be generated.
7. In the Server Names field, enter the name of the Domino servers that will be participating in the single sign-on environment.
8. Click **Save and Close**.

9. Now you have to edit your Domino server document. Locate your Domino server document, and click the **Edit server** button.
10. Click the **Internet Protocols** tab.
11. Click the **Domino Web Engine** subtab.
12. In the Session authentication field, specify **Multi-serve**r (Figure 3-32).

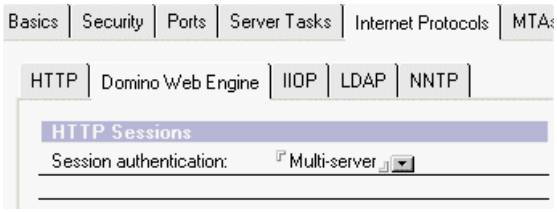


Figure 3-32 Session authentication field in the Domino server document

13. Click **Save and Close**.
14. Start or restart your Domino HTTP server.
15. While the Domino HTTP server is starting, you see the following message on the Domino console:

```
11/20/2001 03:13:52 PM HTTP: Successfully loaded Web SSO Configuration.
```

Here is an example of where you might use Web single sign-on:

User A logs into the iNotes Web Access Domino server, where their welcome page includes the Sametime meeting center, on a different Domino server. They are prompted for their password once and are then authenticated to both servers.

3.4 Firewall considerations

When working with iNotes Web Access, you have two different scenarios when it comes to firewalls issues:

- Online access to the mail database
- Offline access to the mail database

3.4.1 Online access

The considerations for accessing the mail database online are the same as for any other Domino Web application in your organization. The firewall administrator needs to open the HTTP port, which is generally port 80, or the HTTPS port if SSL is used, which is generally the 443 port.

If your users are going to access their mail files with other clients besides the Web browser (like POP3, IMAP, Notes, mobile devices), those other ports must also be opened.

3.4.2 Offline access

When users access a database offline with iNotes Web Access, they must eventually synchronize their subscription with the Domino server. To do this, they use the Lotus iNotes Sync Manager. This software provides much of the functionality of the Notes client's replicator page for Web browser users.

The Lotus iNotes Sync Manager uses the NRPC port (usually port 1352) to communicate with the Domino server. This is the same for Notes clients to replicate or open databases on the Domino server.

3.4.3 Known issues with iNotes Web Access in a firewall environment

This section discusses some of the currently known issues pertaining to running iNotes Web Access in a firewall environment.

Notes.ini

The Tcpip_TCPIPADDRESS notes.ini parameter causes iNotes Web Access to send the local address in a URL redirection rather than the Domino server name. This can cause connection failures.

ActiveX

Given the recent propagation of viruses using malicious ActiveX code, some administrators have decided to restrict ActiveX controls at the firewall level.

iNotes Web Access uses ActiveX controls for the rich text fields when composing new documents, managing attachments, and performing offline installation. iNotes Web Access uses “signed” ActiveX to verify to the users that the code is originally from Lotus/IBM to ensure that these components can be trusted. However, in R5.0.8, if ActiveX controls are filtered at the firewall, these features will fail. In Domino R5.0.9 or newer, even though ActiveX controls are not allowed in the Web browser or firewall, HTML controls are used in place of ActiveX but with limited functionality.

One other possible workaround is to sign the ActiveX controls with an SSL certificate and give permissions on the user’s Web browsers to run controls with that certificate.

Internet Explorer 4.x

Internet Explorer 4.x SP2 does not support Domino Off-Line Services via a firewall. This is fixed in Internet Explorer 5.

3.5 Using LDAP for authentication

OS/400 provides a Lightweight Directory Access Protocol (LDAP) accessible directory server and the corresponding APIs that communicate with other LDAP directory servers. APIs are provided for both OS/400 and Windows applications written in Java, C, and C++. LDAP enabled applications, such as Internet mail clients, can access, update, and manage the iSeries directory.

Since OS/400 V4R3, LDAP has been included as a no-charge feature of OS/400 as part of the OS/400 Directory Services (option 32). The Directory Services includes an LDAP server and a complete set of LDAP clients and utilities.

The LDAP server uses DB2 UDB for iSeries to store the directory information and is configured using Operations Navigator.

Command line utilities are provided to access an LDAP server from Windows and OS/400. These utilities are compatible with LDAP utilities provided for other operating systems and allow you to search, add, modify, and delete directory information.

You can use the LDAP services provided in OS/400 (or any other LDAP v3 compatible directory) to authenticate iNotes Web Access users. It is also possible to use any secondary Domino directory for this purpose.

Note: To set up Domino to check additional directories for authentication, you set up the secondary Domino and LDAP directories as trusted domains in the Directory Assistance database. When you mark the domain as trusted, Domino searches the primary Domino Directory for the user and then searches the trusted secondary Domino and LDAP directories. When you set up Directory Assistance, you specify the order in which Domino searches the secondary directories.

An organization may want to set up Domino to allow authentication checking to secondary Domino or LDAP directories when they use an enterprise LDAP directory to verify client certificates, or when merging/migrating different mail systems or Domino domains.

Authentication using an LDAP or secondary Domino directory works like this (Figure 3-33):

1. A user tries to authenticate to the Domino Directory.
2. The user is challenged with a name and password.
3. If an entry for the user is not found, then Directory Assistance is used, and the user is looked up in another directory, according to the rules established in the Directory Assistance database.
4. If the user is listed in the LDAP directory, and the password matches, they are authenticated, and control is passed to back to Domino where the ACL of the database is checked.

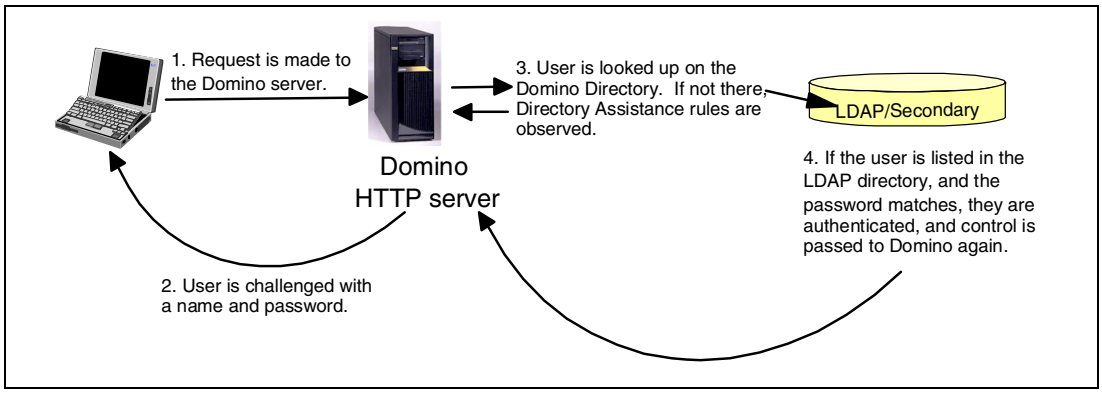


Figure 3-33 Using LDAP or a secondary directory for authentication

If an LDAP or secondary Domino directory is used, it is possible that some changes have to be done to the access control list of the mail database.

The administrator needs to add the full canonical x.500 username in the LDAP directory to the database ACL, in this format:

```
Cn=[common name]/Ou=[organizational unit name]/O=[organization name}/C=[two-character
country code]
```

3.5.1 Configuring Directory Assistance

Before you can enable authentication using an LDAP server, you have to create a Directory Assistance database or use an already existing one. Follow these steps to find out if a Directory Assistance database has already been created on your Domino server. You can also use these same steps to create a new Directory Assistance database and then update it:

1. From a Lotus Notes client, select from the pull-down menu **File-> Database-> Open** or press Ctrl-O.
2. On the Open Database window, enter the Domino server name. You then see a list of databases on that Domino server. If you see Directory Assistance in the list, the database has been created. Open this database and proceed with step 3. Otherwise, if the database does not exist, perform the following steps:
   a. Create a new database by selecting, from the pull-down menu, **File-> Database-> New** or press Ctrl-N. Type the Domino server name, the title of the database, and the database name. We recommend that you name the database file DA.nsf.
   b. Click the **Template Server** button, and specify the Domino server name in the Template Servers pop-up window.
   c. Select **Directory Assistance** from the list (Figure 3-34).

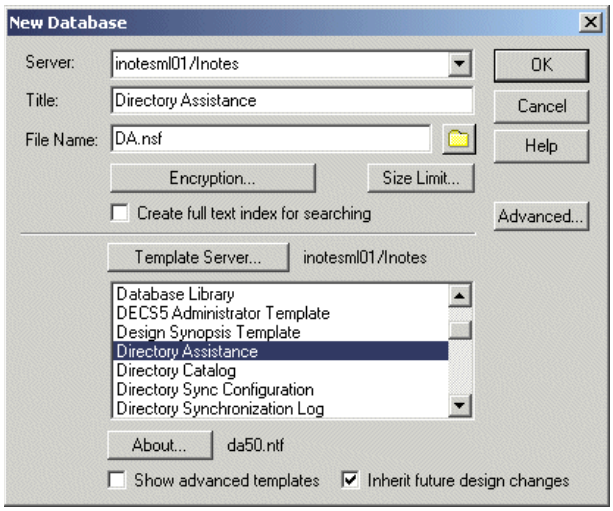


Figure 3-34 Creating a new Directory Assistance database

   d. Make sure you select the **Inherit future design changes** check box.
   e. Click **OK** to create the Directory Assistance database.
3. You see the main view of the Directory Assistance database. Click the **Add Directory Assistance** button (Figure 3-35).

Figure 3-35 Adding a Directory Assistance document

4. A new Directory Assistance document opens and is positioned at the Basics tab. Complete the fields shown in Table 3-4.

Table 3-4 Fields to complete in the Basics tab of the Directory Assistance document

Field	Value
Domain Type	Choose **LDAP**.
Domain Name	A descriptive name that you choose.
Company Name	The name of the company associated with this directory. Multiple Directory Assistance documents can use the same company name.
Search Order	A number representing the order in which this directory is searched, relative to other directories in the Directory Assistance database. If this is the first document in your Directory Assistance database, type **1** in this field.
Enabled	Choose **Yes** to enable Directory Assistance for this directory.

Figure 3-36 shows an example of how the Basics tab in the Directory Assistance document should appear.

Figure 3-36 Basics tab of the Directory Assistance document

5. Click the **Rules** tab, and complete the fields listed in Table 3-5 for each rule you want to create.

Table 3-5 Fields to complete in the Rules tab of the Directory Assistance document

Field	Value
Rule #	Enter one or more naming rules to indicate the names in the directory that can be authenticated.
Enabled	Choose **Yes** to enable the rule you defined above.
Trusted for credentials	Choose **Yes** so that the Web user can authenticate.

Figure 3-37 shows an example of how the Rules tab in the Directory Assistance document should appear.

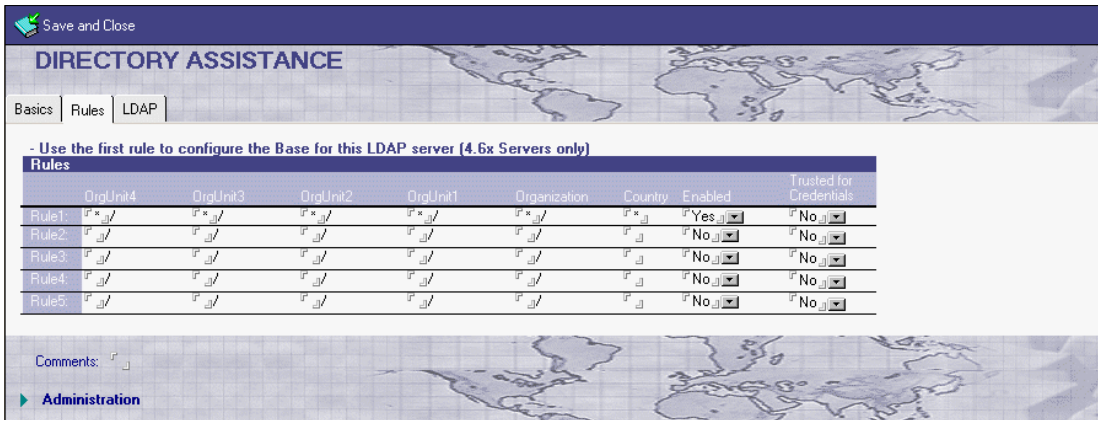


Figure 3-37 Rules tab of the Directory Assistance document

6. Click the **LDAP** tab and complete the fields shown in Table 3-6.

Table 3-6 Fields to complete in the LDAP tab of the Directory Assistance document

Field	Value
Hostname	The host name or IP address of your LDAP directory server.
Optional Authentication Credential	A distinguished name in the Username field and a Password. Enter the distinguished name in LDAP format, for example: `cn=LDUSER1`. The name and password must correspond to a valid name and password on the LDAP server. If you do not enter a name and password, the Domino server attempts to connect to the LDAP directory server anonymously.
Base DN for search	A search base, if the LDAP directory server requires one. For example: `ou=itso rochester center, o=IBM, c=US`
Perform LDAP search for	Choose **Notes Clients/Web Authentication**.
Channel encryption	We strongly recommended that you choose SSL.
Port	The port number you use to connect to the LDAP directory server. If you choose SSL in the Channel encryption field, the default port is 636. If you choose None in the Channel encryption field, the default port is 389. If the LDAP directory server does not use one of these default ports, enter the port number.
Timeout	The maximum number of seconds allowed for a search of the LDAP directory. The default is 60 seconds. If the LDAP directory server has a timeout setting, the lower value takes precedence.

Field	Value
Maximum number of entries returned	The maximum number of names that the LDAP directory server returns for the name searched. The default is 100. If the LDAP directory server has a maximum setting, the lower value takes precedence. If the server's maximum timeout is exceeded, it only returns the number of names found to that point.

7. Click **Save and Close**. You see a document has been created in your Directory Assistance database.
8. Go to the Domino Administrator client and verify that it is connected to your Domino server.
9. Click the **Configuration** tab, and select the **All Server Documents** view. Locate your Domino server.
10. Click **Actions -> Set Directory Assistance Information** from the pull-down menu.
11. Type `DA.nsf` (or the name of your Directory Assistance database) here.
12. Click **OK**.
13. Restart the Domino server for this change to take effect.

Tip: If your Domino server fails to bind or connect to the LDAP server, try to change the LDAP server host name to its IP address.

3.5.2 Verifying the connection from Domino to the LDAP server

Perform the following steps to verify the connection from your Domino server to the LDAP server:

1. Go to your Lotus Notes client and open your **Local address book**.
2. Select the pull-down menu option **Create -> Account**. You see a new window.
3. Specify the fields shown in Table 3-7.

Table 3-7 Fields for creating an account document

Tab	Field	Value
Basics	Account name	A descriptive name.
	Account server name	The DNS server name or IP address of your LDAP server.
	Protocol	LDAP
Protocol Configuration	Search base	The base of the directory tree from which to start a search, for example: `ou=itso rochester center, o=IBM, c=US`
Advanced	Port number	The port to connect to your LDAP server. Default is 389.
Note: You can leave the other fields with their default values.		

4. Click **Save and Close**.
5. From a Lotus Notes client, open your mail database.

6. Create a new memo.
7. Click the **Address...** button.
8. Select the Account name (the one that you just created) from the list.
9. Type a person name that is listed in the LDAP directory, and click **Search**. If the connection to the LDAP server is established, you will see a result (Figure 3-38).

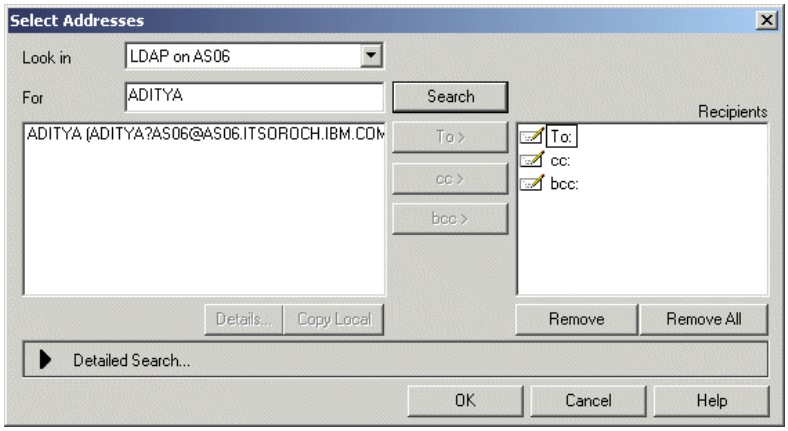


Figure 3-38 Searching for a person in an LDAP directory

10. You may continue with sending an e-mail, or click **Cancel** to end the test.

3.5.3 Enabling authentication to a mail database for an LDAP user

To enable authentication to a mail database for an LDAP user, you must first create a Person document for the user in the Domino Directory and then create a mail database for this LDAP user.

Creating a Person document for an LDAP user

Perform the following steps to create a Person document for an LDAP user in the Domino Directory:

1. Create a Person document in the Domino Directory that represents the LDAP user.
2. In the Person document, specify a first and last name.
3. Specify the user name. This has to be in the format as defined in your LDAP server, for example:

   `LDAP USER2/ITSO Rochester Center/IBM/US`
4. Specify the short name. The value you enter in this field should match the common name defined for this person in the LDAP directory entry.
5. Click the **Mail** tab.
6. Select **Notes** as the mail system.
7. Type the name of your Domino mail server.
8. Type the mail file name for the LDAP user that you are registering in the Domino Directory. Write down this file name since you will use it later.
9. Click **Save and Close**.

At this point, you have created a Person document for the LDAP user. Continue with the next section to create a mail database for the LDAP user and set the ACL.

Creating a mail database for an LDAP user

Perform the following steps to create a mail database for an LDAP user:

1. Create a mail database using the iNotes5 template (iNotes5.ntf) on your Domino server by using these steps:
   a. From your Lotus Notes client, select the **File** pull-down menu and select **Database -> New** or press Ctrl-N.
   b. From the New Database window, type or select the Domino server name.
   c. Type the title and filename of the database you are creating. The filename is the one you specified when you created the Person document in the previous section. See Figure 3-39.
   d. Click the **Template Server** button, and specify your Domino server name.
   e. Select **iNotes Mail and C&S** from the list.
   f. Make sure you select the **Inherit future design changes** check box.
   g. Click **OK** to create the database.

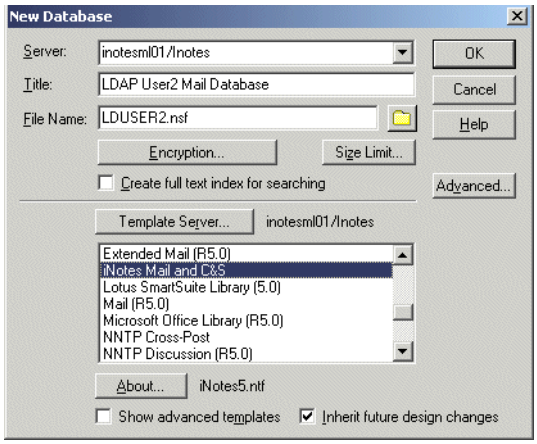


Figure 3-39 Creating a mail database for an LDAP user

2. Locate the LDAP user mail database icon on your workstation and right-click it.
3. Select **Database** and then **Access Control**.
4. Click the **Add** button. Here, you do not select the person from the list. Instead, you type the distinguished name of the LDAP user as defined in the LDAP directory, for example:

   ```
   cn=LDAP USER2/ou=ITSO Rochester Center/o=IBM/c=US
   ```

5. Click **OK**.
6. Select **Person** for the user type.
7. Select **Manager** for access.
8. Verify that the **Delete documents** option is selected. See Figure 3-40.

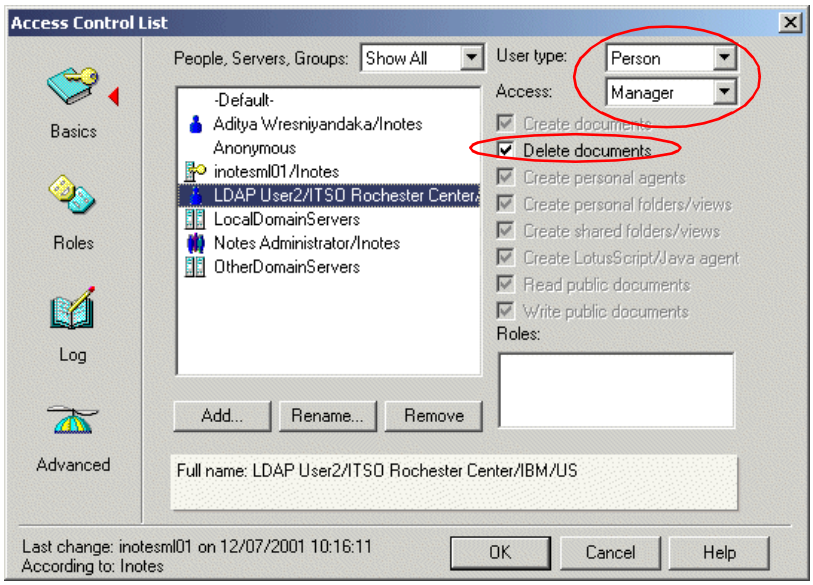


Figure 3-40 Adding an LDAP user to the mail database ACL

9. Click **OK**.

3.5.4 DOLS-enabling an LDAP user's mail database

Important: To perform the tasks described in this section, your Domino server certifier ID file must be available.

Creating certifier ID files for LDAP organization and organizational unit

If the organization name where the LDAP users belong to is not the same as the organization name of your Domino server, you have to register it on your Domino server and cross certify with your Domino server's certifier ID. We use `ITSO Rochester Center/IBM/US` as an example for creating the new certifier ID files. Perform the following steps:

1. Start your Domino Administrator client and connect to your Domino server.
2. Click the **Configuration** tab.
3. On the right most panel of the window, click **Tools -> Registration**, and select **Organization...** from the list (Figure 3-41).

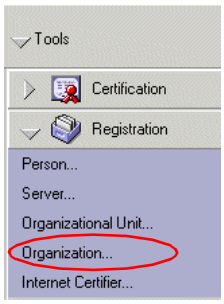


Figure 3-41 Registering a new organization

4. On the Register Organization Certifier window, make sure the Registration server points to your Domino iNotes Web Access server.

5. Complete the fields as shown in Figure 3-42. Even though the country code is optional, it is normally good practice to put the country code here, for example US.

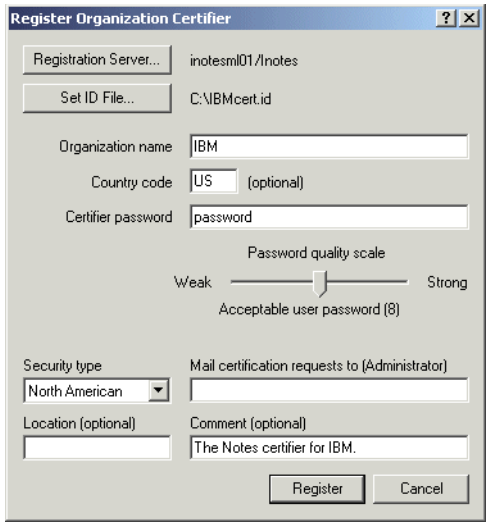


Figure 3-42 Completing the fields in the Register Organization Certifier window

6. Set the password quality scale to at least 8.
7. Click the **Set ID File** button to specify the name and location of the certifier ID file for your LDAP organization.
8. Click **Register**.
9. You see a message saying that the ID has been created. Click **OK**.
10. After you register the organization, register the organizational unit, which is *ITSO Rochester Center* in this case. Again from your Domino Administrator client, **Configuration** tab, click **Tools -> Registration**, and select **Organizational Unit...** from the list.
11. On the password prompt window, click **Cancel**.
12. From the Choose Certifier ID window (Figure 3-43), specify the certifier ID file that you just created, which is **IBMcert.id** in our example.

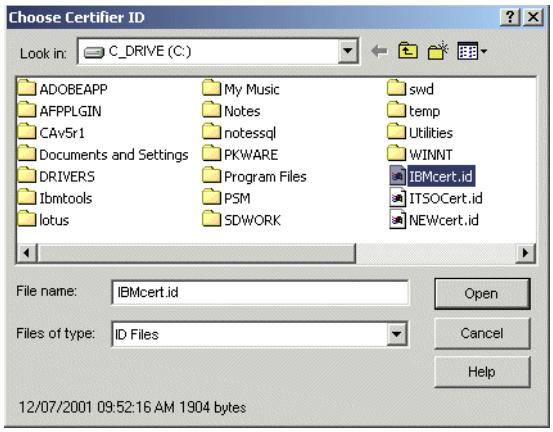


Figure 3-43 Choosing a certifier ID file

13. Type the password and click **OK**.
14. Click **Yes** or **No** (depending on your customer policy) on the next pop-up window.

15. Complete the fields as you did for Organization. See Figure 3-44.

Attention: Make sure that your LDAP organization, not your Domino server organization, is listed next to the Certifier ID button.

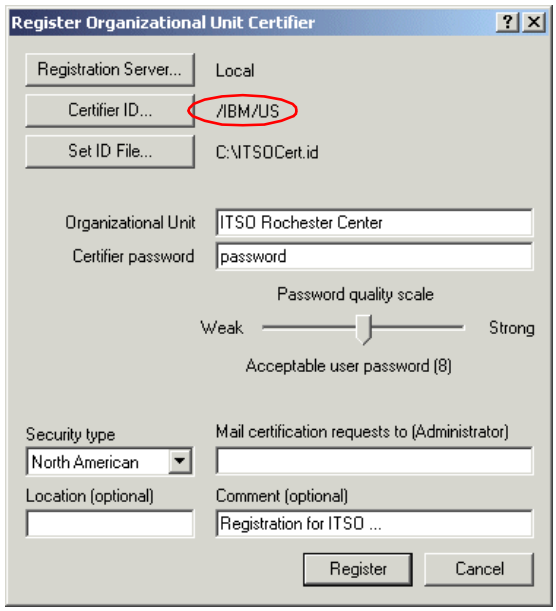


Figure 3-44 Registering an LDAP organizational unit

16. Click **Register**.

Cross-certifying the LDAP certifier ID files

You now have to cross-certify the ITSOcert.id file that we just created. You need to do this so that the LDAP user can access the Domino server from the local DOLS environment.

1. From the right panel of your Domino Administrator client, click **Certification-> Cross Certify...**
2. Specify your Domino sever certifier ID file (usually cert.id) in the Choose Certifier ID window.
3. Type the password and click **OK**.
4. In the Choose ID to be Cross-Certified window, specify your LDAP organizational unit certifier ID file. In our example, this is **ITSOcert.id**.
5. On the Issue Cross Certificate window (Figure 3-45), verify that the Certifier and Server fields point to your Domino server.
6. Select your LDAP organizational unit in the Subject name field.

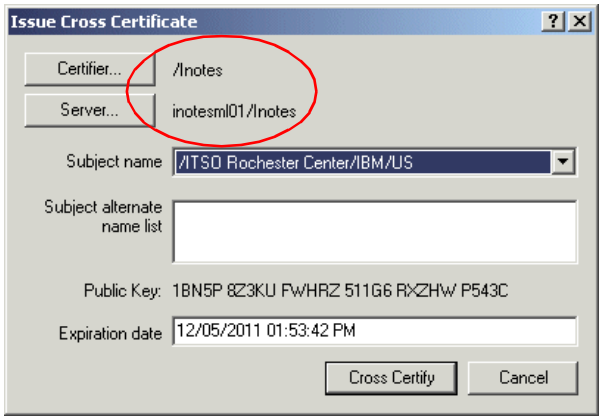


Figure 3-45 Cross-certifying an LDAP organizational unit

7. Click **Cross Certify**.
8. Click **No** on the pop-up window that is displayed since you are not going to cross-certify another ID file.
9. From the left panel of your Domino Administrator client, select the **Miscellaneous-> Certificates** view. Verify that the information under the Notes Cross Certificates twistie is correct (Figure 3-46).

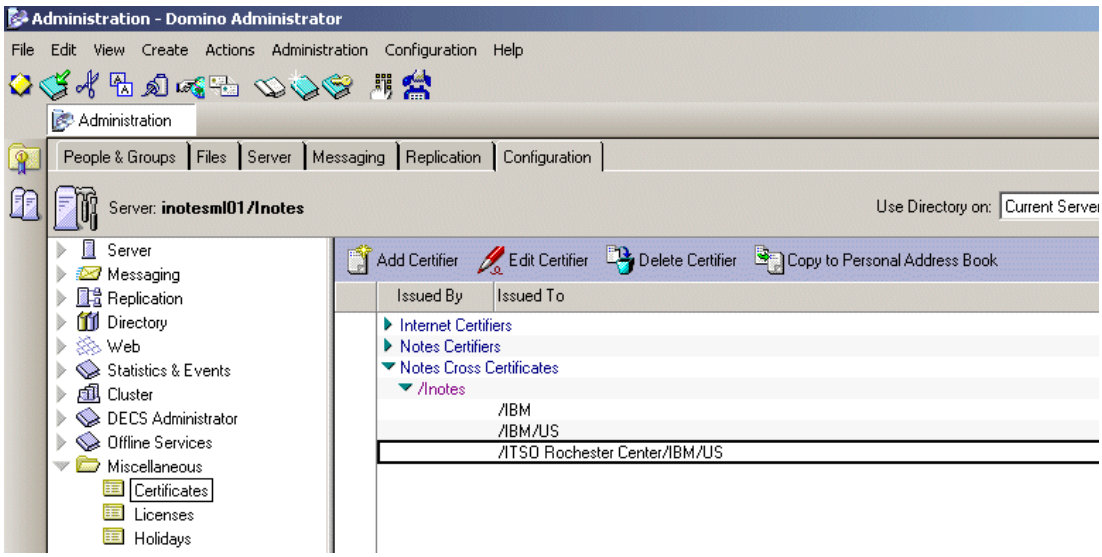


Figure 3-46 Verifying cross certificates

Creating a security policy for LDAP users

LDAP users do not have a Notes ID file created for them on the Domino server. If they want to go offline, they must have an ID file that they will use locally. You may already have a DOLS security policy document created for regular Notes users, that specifies *Prompt for ID file* in the ID deployment policy field. For LDAP users, you need to create another security policy document that specifies that the ID files are to be generated automatically. To do this, perform the following these steps:

1. From the Lotus Notes client, open your Offline Services (doladmin.nsf) database.
2. Click **New Security Policy**.

3. Type your LDAP security domain, for example `/ITSO Rochester Center/IBM/US`. Do not forget the leading forward slash.
4. Select **Automatically generate user IDs** in the ID Deployment Policy field.
5. Click the **Automatic** tab.
6. Attach the certifier ID file for your LDAP organization unit (the one that has been cross-certified by your Domino certifier ID). In our example, this was **ITSOcert.id**.
7. Specify the password and set the expiration date.

   Note: The password is not encrypted, so make sure that you properly set the ACL of the doladmin.nsf database.

8. Press Esc and click **Yes** to save and close the document.

   Figure 3-47 shows an example of a Domino Off-Line Services database that has security policy documents for regular Notes and LDAP users.

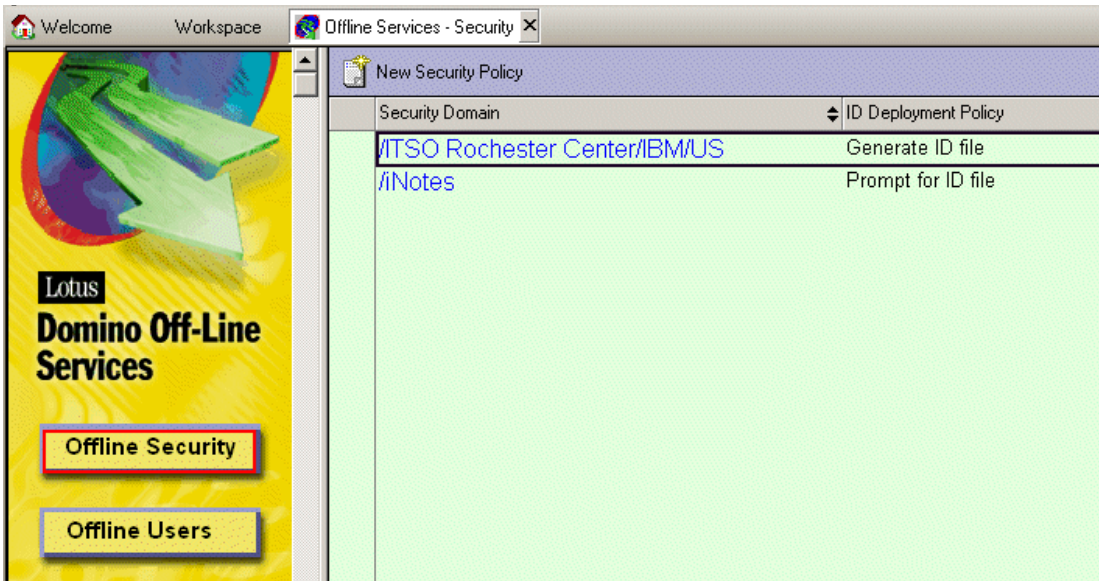


Figure 3-47 DOLS Security policy documents for Notes and LDAP users

3.5.5 Synchronizing LDAP and Domino directories

Most of the time, Directory Assistance is enough to perform the authentication process. However, in some organizations, it is necessary to have a tighter integration between the enterprise LDAP directory and the Domino Directory. In these circumstances, it could be necessary to synchronize between the entries in the LDAP directory and the documents in the Domino Directory, either in one direction or bidirectionally.

This functionality is not native to Domino, but there is a tool available called *LDAPSync* to perform these operations. This tool was developed by Lotus Professional Services. The LDAPSync toolkit can provide a solution for consolidating different directory sources, as well as mapping different Domino directories to a single database. This solution is highly customizable and is standards-based.

Note: This tool is not available for iSeries. It must be installed on a Window NT4 or higher server, but it can pull and push entries to any standard LDAP directory service, including the iSeries.

LDAPSync can work in different ways:

- Different source databases or directories to a single destination (summarization)
- A single source database or directory to different destination databases (broadcast)
- A single source document or entry to different destination documents or entries (consistency)

LDAPSync toolkit components

There are three key components in the LDAPSync toolkit:

- **LDAPSync**: Synchronizes directory entries between LDAP directories and Domino directories exchanged via the use of an LDIF file.
- **SynchroNSF**: Used for unidirectional replication between two Domino databases that do not share the same replica ID or design. SynchroNSF operates just like the Domino replicator, but without the constraint of the source and destination databases being replicas.
- **RunAgent**: Used for submitting an agent within a Domino database via a batch file. RunAgent lets organizations run an agent during the synchronization process instead of at an specific time via a schedule.

How it works

The process works as outlined here (Figure 3-48):

1. Once LDAPSync is activated, the transactions (additions, LDAP directory or the Domino databases) are downloaded and queued on a Domino database.
2. An agent is then triggered using a batch file to enable those transactions to be passed to another database.
3. The third component of the LDAPSync, SynchroNSF, then passes the transactions to the target Domino database.

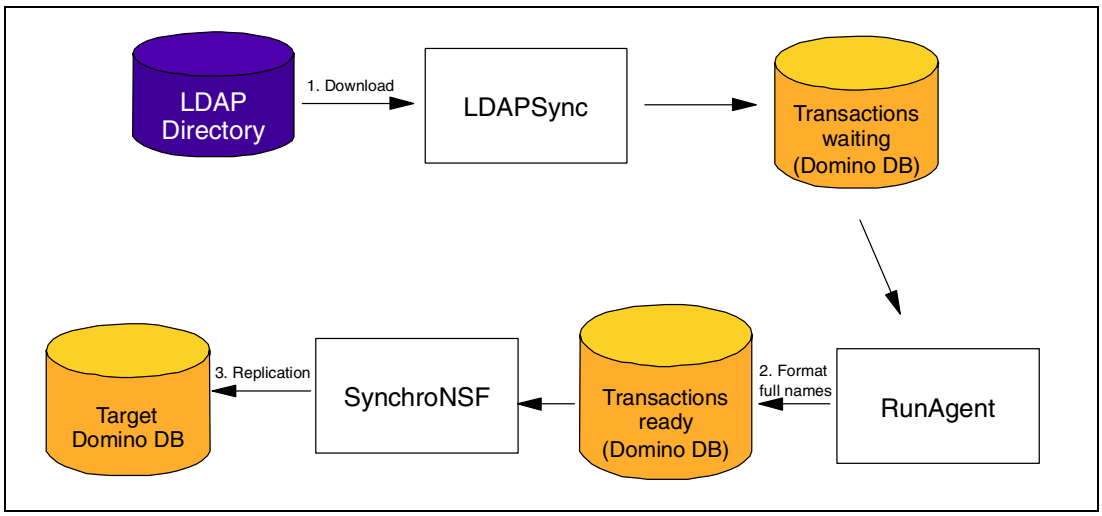


Figure 3-48 LDAPSync processing

LDAPSync can be acquired from your Lotus Professional Services representative.

4

Enhancing iNotes Web Access

This chapter discusses how you can enhance iNotes Web Access. For example, you can customize the template design or use a Web Mail redirection tool to provide a common log on screen. Or you can create a light-weight directory subscription for offline users and integration with an awareness product such as the Lotus Sametime server to enhance collaboration.

This chapter covers the following topics:

- Customizing the Welcome page
- Customizing the iNotes Web Access mail template
- Providing a single URL with the Web Mail Redirect tool – a single sign-on URL for all users
- Enabling directory and address lookup for offline users
- Enabling other applications to be used offline
- Integration with Sametime 2.5 to enable instant messaging by adding chat capabilities to online users

4.1 Customizing the Welcome page

You can customize the initial Welcome page for your users on a per-user level, group level, or even an organization-wide level. To deploy customized Welcome pages for groups or subgroups, each server will maintain a single uniquely customized Welcome page. The user can change this Welcome page later to fit their own requirements.

For more information about customizing the Welcome page, refer to the redbook *iNotes Web Access Deployment and Administration*, SG24-6518.

4.2 Customizing the iNotes Web Access mail template

Some areas of iNotes Web Access were not designed in the Domino Designer. A lot of complex Java Script is coded in iNotes Web Access to provide the Web interface. Several elements, such as image resources, frames, comments, and meaningful text strings, are separated from each database itself and kept in the shared the forms5.nsf database. This helps to minimize the amount of code that needs to be passed to the client and increases the database cache hit for HTTP usage on the Domino server.

Therefore, it is possible that customizing these elements may produce unpredictable results instead of adding more functionality. Lotus recommends that customers *do not* attempt to customize the iNotes Web Access template until the proper guidelines are made available by Lotus or through the Lotus Professional Services organization.

The Customization Disclaimer from the Lotus Knowledge Base, Document #186361 - *What is the Support Policy for Customization of the iNotes Web Access Mail template?* informs users that customized templates are not certified or supported by Lotus. Therefore, Lotus Notes Support may refer you back to the stock template to troubleshoot any problems. If the problem is not in the stock template, you may have to remove the added function from the template and submit an enhancement request for it in the next release. You can find this document in the Lotus Knowledge Base, which is part of the Lotus Support Web. Simply go to the site at `http://www.lotus.com/home.nsf/welcome/support` and type `183631` in the keyword search box.

The disclaimer also includes customization of the forms5.nsf database as well, which keeps most of the design and interface elements of iNotes Web Access.

Nonetheless, customization in iNotes Web Access is not an “impossible” thing to do. Some customization can be done and should not affect the functionality of iNotes Web Access.

Attention: Any customization in iNotes Web Access Release 1.0 templates as provided in Lotus Domino server R5.0.8 or R5.0.9, including what is shown in this section, is not officially supported by Lotus or IBM. The customization that you do here may be replaced by the iNotes Web Access development toolkit in future releases.

4.2.1 Customizing the Notes client part in iNotes Web Access

Most companies customize the standard R5 Notes mail template for their own use. The iNotes Web Access mail template also supports access from the Notes client. You can copy the customized forms, frames, and views that are used in your customized R5 Notes mail template into the iNotes Web Access mail template that affects only the Notes client. But you must use caution and only copy and paste the existing design elements using Domino Designer. Keep in mind that there are new fields and forms in the iNotes Web Access template that may have used similar names to your customized design elements.

4.2.2 Customizing the access control list

By default, the iNotes Web Access mail template has the Maximum Internet name & password field in the Advanced option of the access control list (ACL) set to Editor. This is not a sufficient access level for the user to change their own Internet Password or to enable the Out of Office agent.

You may customize the iNotes5.ntf template and set the ACL properly *before* you register a new person or convert existing users' mail database templates. Refer to "Assigning Internet passwords for each iNotes Web Access user" on page 31.

4.2.3 Disabling the Go Offline icon

If you plan to deploy online access only to the end user, you may want to remove the Go Offline icon from the menu of iNotes Web Access. Even if you do not enable DOLS and do not configure an offline security policy, the Go Offline icon is still available but not functional. This may confuse the end user (Figure 4-1).

Figure 4-1 Default menu available to iNotes Web Access users

Most of the user interface of iNotes Web Access is defined by *skins*. These skins are kept in a separate database (INOTES/forms5.nsf) in the Domino server's data directory and are shared among users. Modification to this database affects all iNotes Web Access users on that Domino server.

To disable the Go Offline icon, perform the following steps:

1. Back up the default forms5.nsf database, or copy it to another filename. In case something goes wrong or when you want to enable the Go Offline icon later, you can restore this file back to its original version. To copy this database to another file without the Backup and Recovery Media Services for Domino online backup feature, you need to stop the Domino server before you can access this file. You may use OS/400 Copy (CPY) CL command, Operations Navigator, or NetServer to map a drive to the OS/400 Integrated File System (IFS) from a PC.

   Your Copy CL command may look like the following example:

   ```
   CPY OBJ('/lotus/domino/inotes01/INOTES/forms5.nsf')
   TOOBJ('/lotus/domino/inotes01/INOTES/forms5.nsf.backup')
   ```

2. By default, you do not have enough authority to change the design of the forms5.nsf database. You may either FTP or copy this file to work locally or use NetServer to map a drive to your PC and modify the ACL of this database as if it was on Local. We show you

one of these methods using the Operations Navigator to drag and drop the file to work from a local directory.

Important: After you copy or FTP the forms5.nsf file back to the Domino server or if you change the ACL, the OS/400 object authority of forms5.nsf is also changed. You have to change the authority of this file back to be owned by the QNOTES user profile only. If you map a PC drive to the iSeries server and change the ACL, we recommend that you change it back after you finish the customization.

3. Launch Operations Navigator and log on with QSECOFR or similar user.
4. Expand your iSeries server on the left pane and browse to **File Systems-> Integrated File System-> Root-> Your iNotes Web Access Domino server data directory-> INOTES** as shown in Figure 4-2. Then drag the forms5.nsf file and drop it to your PC location such as Desktop or C:\Lotus\Notes\Data directory on another Windows Explorer.

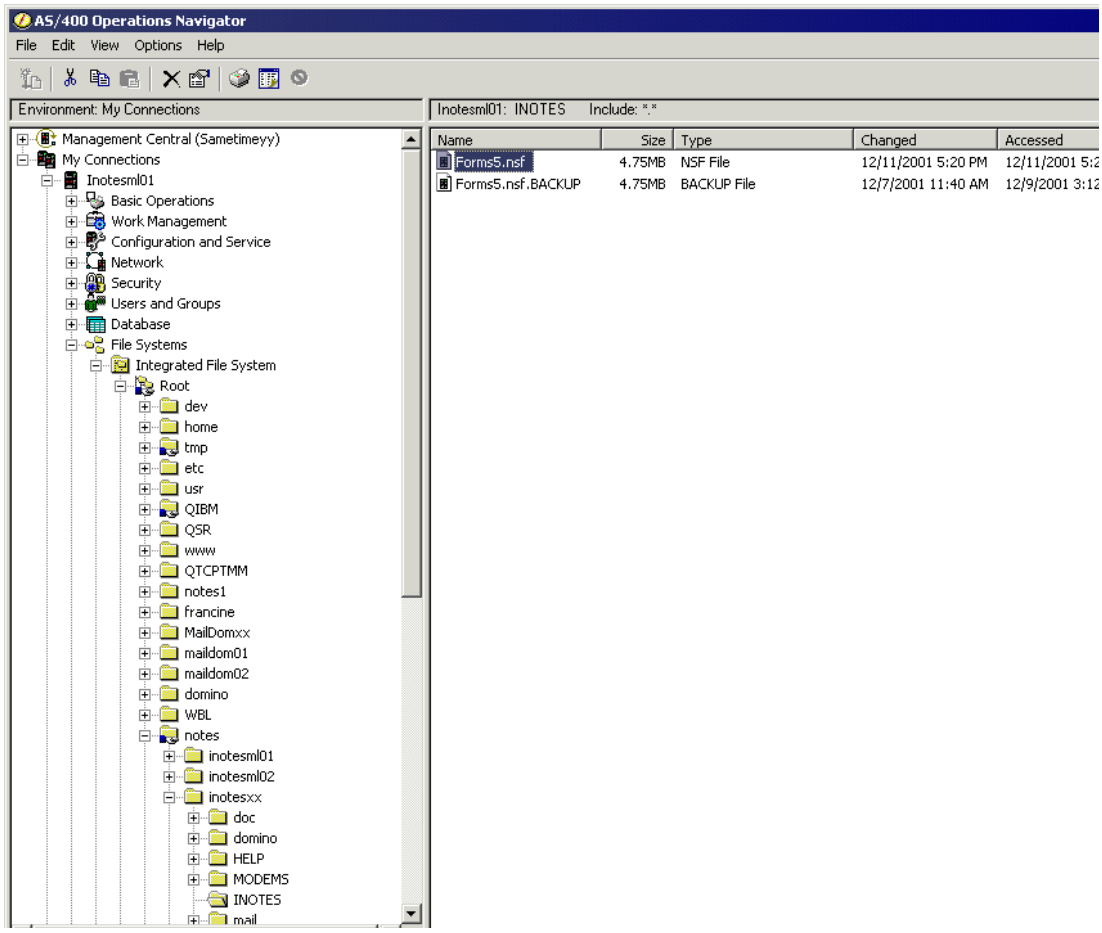


Figure 4-2 Using Operations Navigator to copy Forms5.nsf to a local directory

5. Launch the Domino Designer client, and open the **forms5.nsf** database you just copied.
6. Expand the database on the left pane to **Resources -> Subforms**, and browse for the **ShimmerOffline_SkinComponent** subform as shown in Figure 4-3.

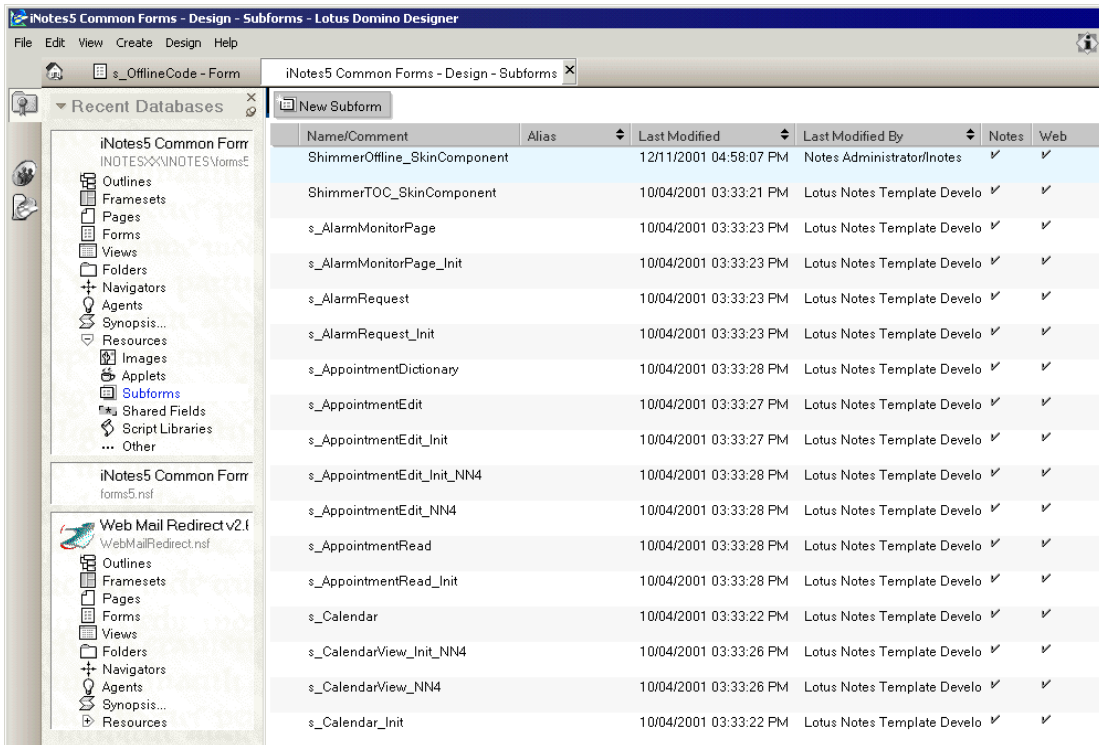


Figure 4-3 Browsing for ShimmerOffline_SkinComponent subform

7. Double-click the **ShimmerOffline_SkinComponent** subform to open and edit this subform. The content of this subform looks similar to the example in Figure 4-4.

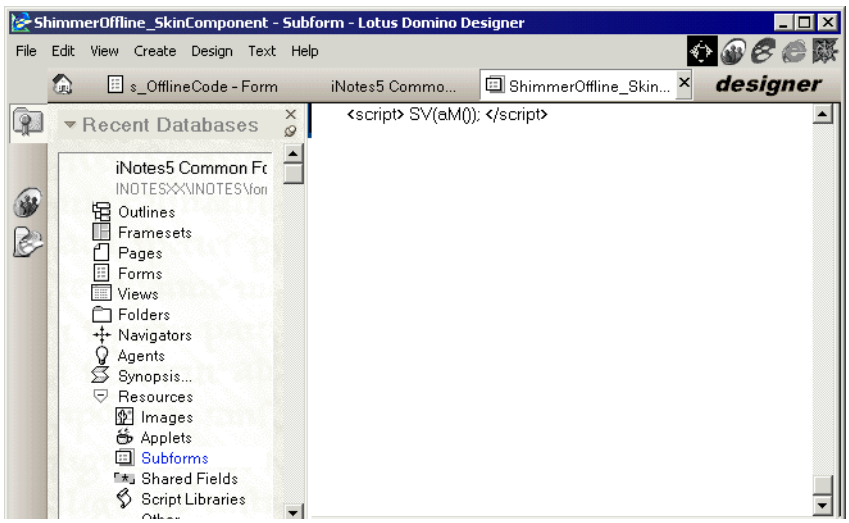


Figure 4-4 ShimmerOffline_SkinComponent subform in Forms5.nsf database

8. This form calls a JavaScript code to show the Go Offline interface of the Offline menu. You may delete all of its contents or put a remark on the entire file. We recommend that you use the remark and accompany it with some comments for reference when you or someone else come back and modify this later. The modified subform may look like the example in Figure 4-5.

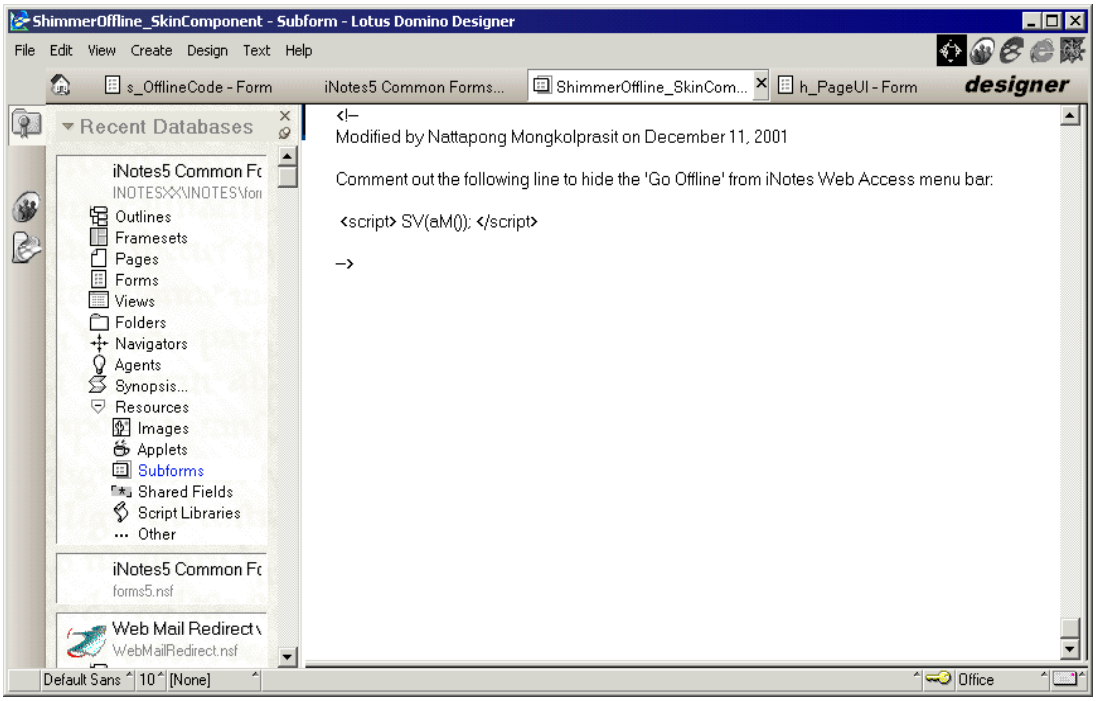


Figure 4-5 Modified ShimmerOffline_SkinComponent subform

9. Click **Save and close**.
10. Put the file back in the original location on the Domino server. Again, you may use FTP or Operations Navigator to do this. The example shown in Figure 4-6 uses Windows Explorer to drag and drop file into the data directory of the Domino server in Operations Navigator.

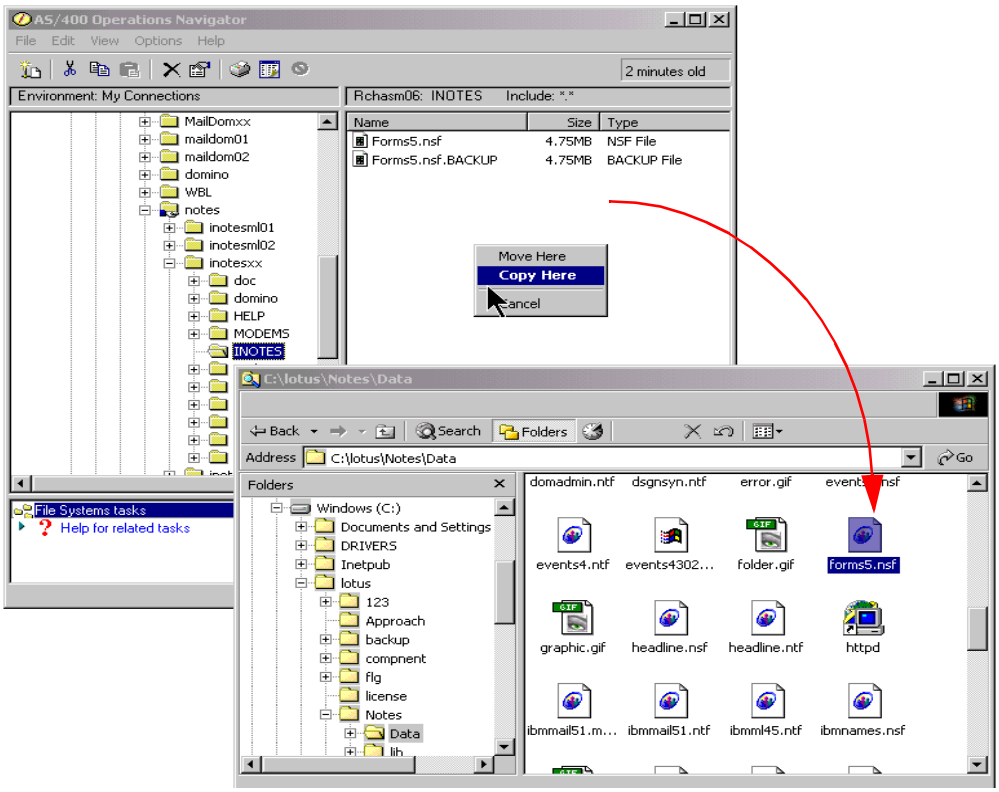


Figure 4-6 Dragging, dropping file from Windows Explorer to Domino data directory under INOTES

11. Check the permission of the file. This file must be owned by the QNOTES user profile. You can use the following Change Owner (CHGOWN) CL command to change the permission:

    ```
    CHGOWN OBJ('/lotus/domino/inotes01/INOTES/forms5.nsf') NEWOWN(QNOTES)
    ```

    To change the owner to QNOTES using Operations Navigator, right-click the **forms5.nsf** file in Operations Navigator and select **Permissions**. The permissions window appears as shown in Figure 4-7.

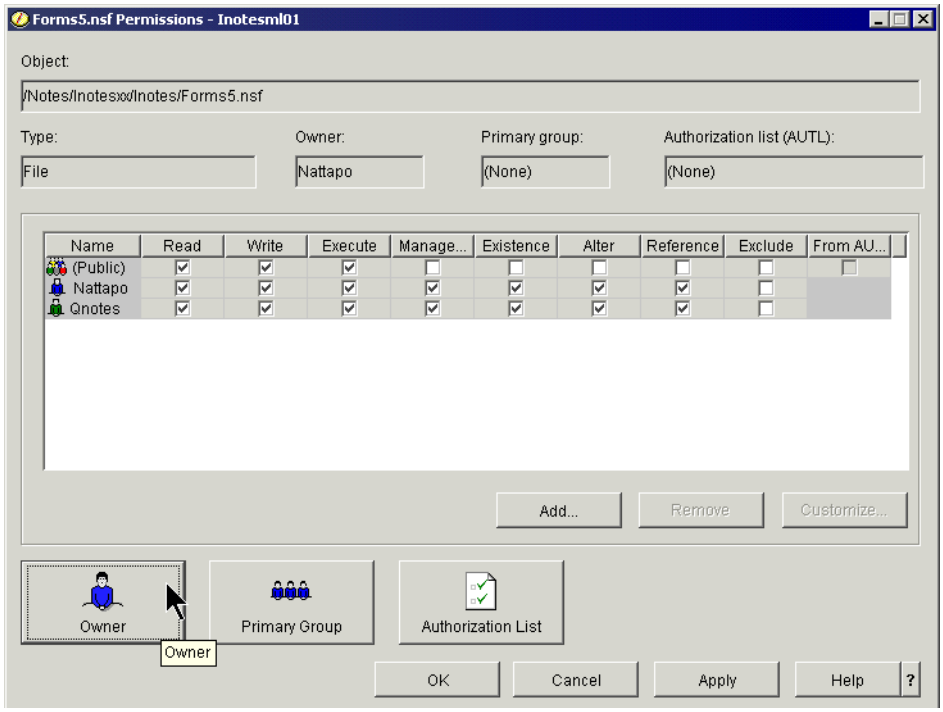


Figure 4-7 Changing file permission to QNOTES in Operations Navigator

12. Click the **Owner** icon and browse for user **QNOTES**. Click **OK** (Figure 4-8).

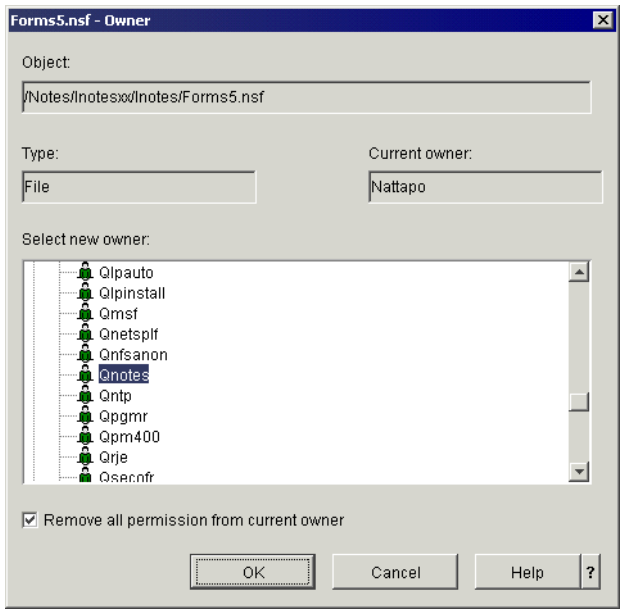


Figure 4-8 Selecting QNOTES as the new object owner

13. Restart the Domino server.

14. Log on to iNotes Web Access online again and check the new result. Notice that there is now no Go Offline icon in the upper right corner (Figure 4-9).

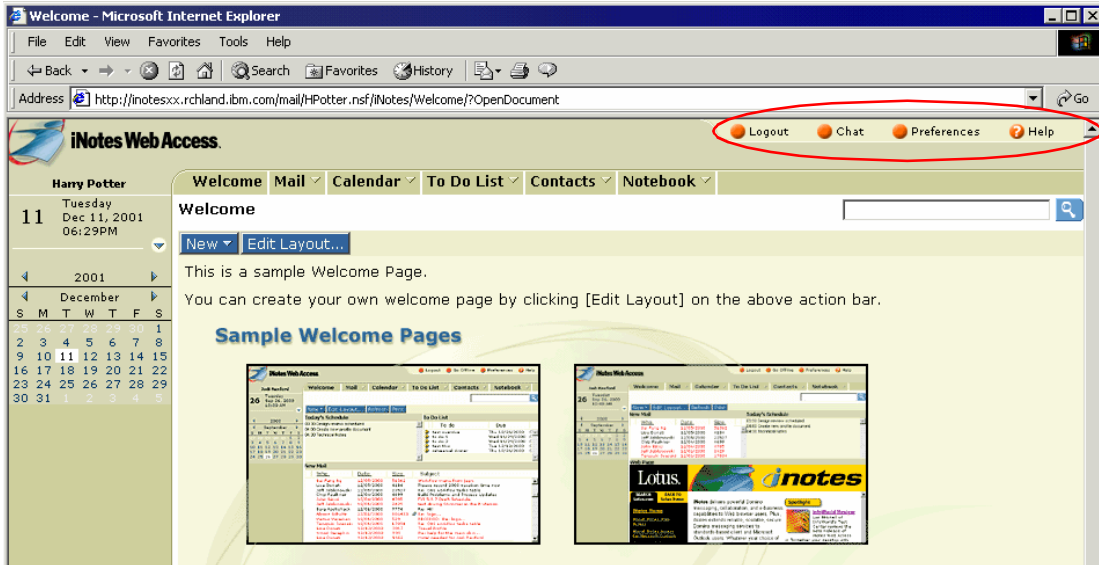


Figure 4-9 iNotes Web Access interface with no Go Offline icon in the menu bar

Note: After upgrading or reinstalling the Domino server code, the forms5.nsf database will be replaced, and your customization will be lost. Make a copy of the changed forms5.nsf database before you upgrade the Domino server, and copy your customized elements back after the upgrade/installation.

4.2.4 Other iNotes Web Access customizations

There are other customization examples, such as creating your own company logo, changing the order of table of contents, and disabling the Welcome page in iNotes Web Access. These types of customizations, among others, are discussed in *iNotes Web Access Deployment and Administration,* SG24-6518.

4.3 Providing a single URL with the Web Mail Redirect tool

Normally users have to specify the URL of their mail databases to access their mail files. This is quite inconvenient and difficult to remember for users especially if your design includes having a multi-level of subdirectories to divide users by department or organization unit. Here are some examples of URLs that users may have to type to access their mail files:

```
http://inotes.mycompany.com/mail/Servers/Hardware/iSeries/Nattapong.nsf
http://inotes.mycompany.com/mail/Services/Software/Lotus/Gerardo.nsf
http://inotes.mycompany.com/mail/Executives/LouGerstner.nsf
```

In addition, by default, accessing a mail file by specifying only the mail database in the URL leads to the Welcome page. In a case where you would want to specify another interface, such as the first page being the Inbox for the user, it is even more difficult to remember (see Table 2-6 on page 45). For example, to specify the Inbox as the first interface for the user instead of Welcome page, you have to specify the URL:

```
http://inotes.mycompany.com/mail/Servers/Hardware/iSeries/Nattapong.nsf/inotes/
mail/?OpenDocument&ui=inotes
```

Another benefit of using the Web Mail redirection tool is when sometimes users access their mail file using iNotes Web Access on Internet Explorer, while sometimes they have to use Netscape to access their other mail files. In this case, you can also modify the Web Mail redirect to detect an unsupported Web browser or redirect to the correct URL for the WebMail user interface instead of the iNotes Web Access user interface.

There are several examples and freewares of Web Mail redirection tools available for download. Some of them use an agent or a Java Servlet to redirect. From a performance point of view, the general recommendation is to avoid using the agent version because it tends to consume more resource on the server and gives worse response time than the servlet version.

This redbook shows you one of the most efficient yet simple Web Mail redirect tools available. It is based on the Notes formula language to retrieve the user information and mail directory from the Domino Directory and provides a single sign-on URL interface to all users. There are easy forms available that allow you to set your server parameters, messages, icons, company logo, etc.

The *Web Mail Redirect* tool is available for download from the Notes.net Iris Sandbox Web site at: http://www.notes.net/sandbox.nsf

You can use it to enable Web browser redirection to an authenticated user's mail file. This database can become an option for customers who want to give end users easy access to their mail files without having to type a long URL.

At the time this redbook was written, the versions available for public use were v2.61 and v3.00 BETA 2.

Important: The software is provided "AS IS". Therefore there is no support or technical assistance with respect to using the software. Read the download and software agreements completely before you implement this software.

4.3.1 Downloading and configuring the Web Mail Redirect database

Perform the following steps to set up the Web Mail Redirect tool:

1. Download the zipped database file, for example webmail261.zip, from the Notes.net Iris Sandbox Web site (http://www.notes.net/sandbox.nsf).
2. Extract the zipped file to the webmailredirect.nsf database.
3. Transfer this database to your Domino iNotes Web Access server data directory. You may use FTP. Or you may choose Operations Navigator, in which case you drag the file from Windows Explorer and drop it in the Domino server's data directory under **File Systems-> Integrated File System-> Root**.
4. Make sure that you change the ownership of this database to the QNOTES user profile. Start your Lotus Notes client and open this database. The welcome page of the Web Mail Redirect tool appears as shown in Figure 4-10.

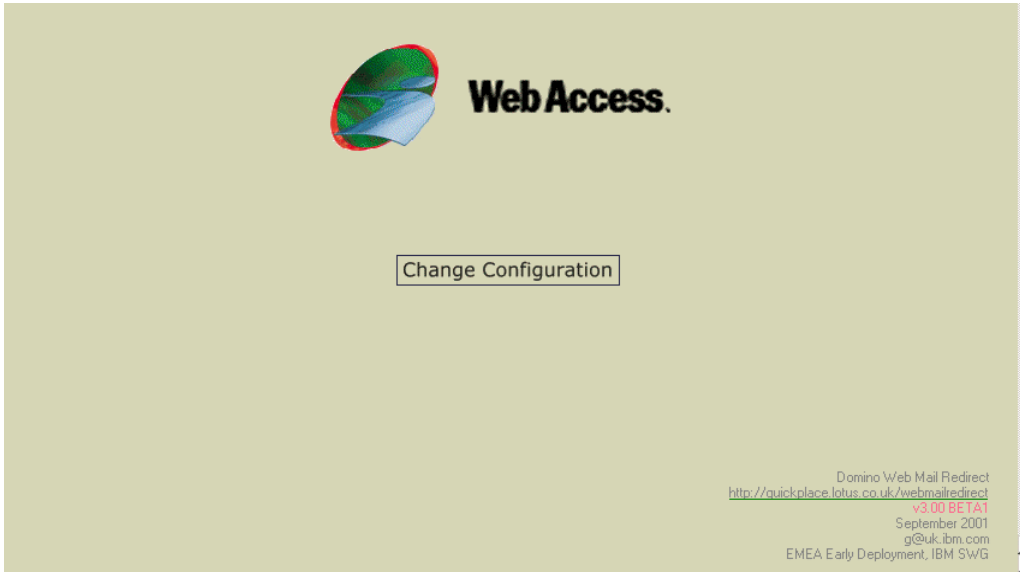


Figure 4-10 Web Mail Redirect welcome page

5. Click **Change Configuration**.
6. A configuration panel with several tabs appears (Figure 4-11) that allows you to change the configuration to match your environment. Our focus is on the URL Redirection and Redirect Screen tabs.

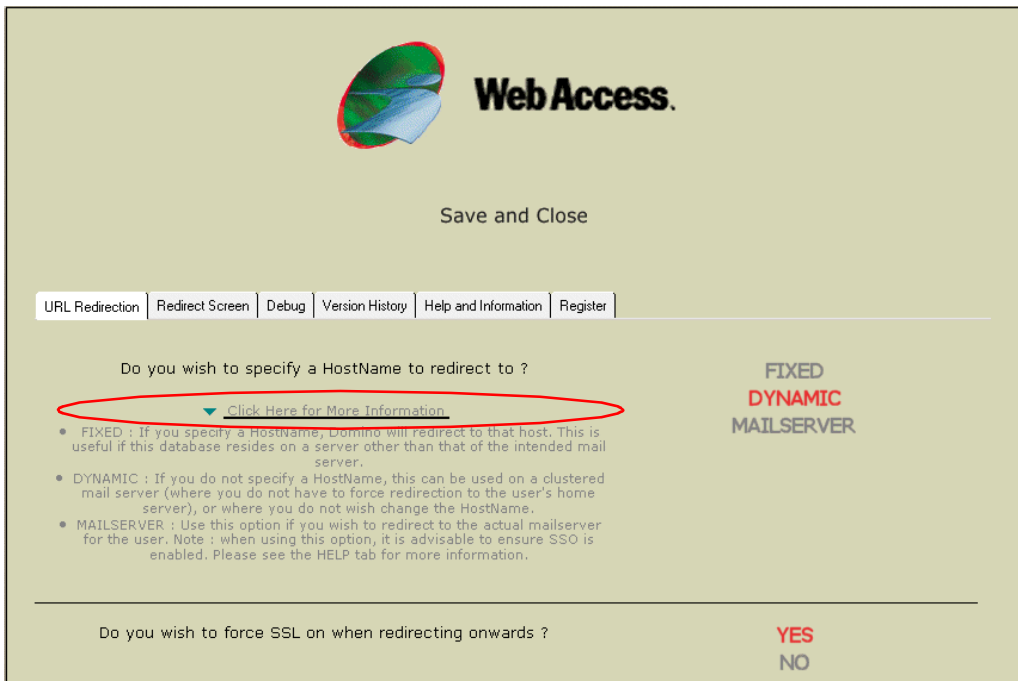


Figure 4-11 Web Mail Redirect configuration display: URL Redirection tab

7. Depending on your environment, you need to select Fixed, Dynamic, or Mail Server for the host name to redirect to. Click the twistie **Click Here for More Information** for a full description of each option.
8. Specify whether you want to force the use of SSL when redirecting onwards. If you specify Yes, make sure that you also set up and enable SSL on the Domino server.

9. Click the **Redirect Screen** tab.
10. Specify the time, in seconds, before the user is redirected (Figure 4-12). You can also change the message that the user sees on the Web browser while they are being redirected to their mail file.

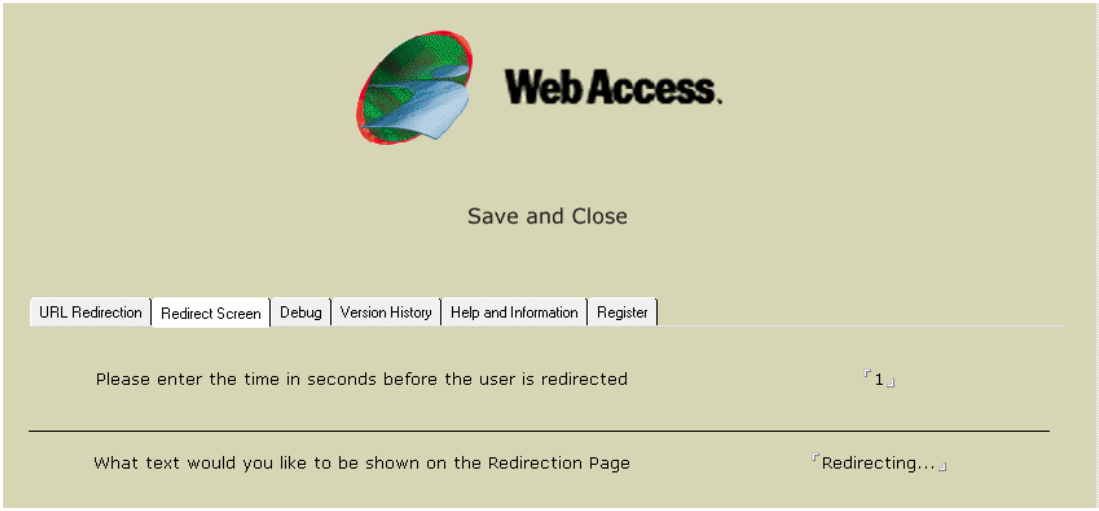


Figure 4-12 Web Mail Redirect configuration screen: Redirect Screen tab

11. Click **Save and Close**.

4.3.2 Configuring Web Mail Redirect as the default home page

After you finish configuring your Web Mail Redirect database, the next step is to specify this database as the default home page of your Web site in the Domino Directory. Perform the following steps:

1. Start the Domino Administrator client and login with the Administrator ID and password.
2. Make sure that you are connected to your Domino iNotes Web Access server.
3. Click the **Configuration** tab.
4. Locate your Domino server, and click the **Edit Server** button.
5. Click the **Internet Protocols** tab and then **HTTP** tab.
6. Under Mapping, in the Home URL field, type:

   `/webmailredirect.nsf?Open`

   See Figure 4-13.

Figure 4-13 Specifying the Web Mail Redirect database in the Domino server document

7. Click **Save and Close**.

4.3.3 Testing the Web Mail Redirect tool

Perform the following the steps to test the Web Mail Redirect tool:

1. Open your Web browser.
2. Type the URL to your Domino iNotes Web Access server, without specifying any mail database file name, for example:

   `http://inotesml01.rchland.ibm.com`

   The Web Mail Redirect log in screen should appear.
3. Type your Domino user name and password and click the **login** button.
4. As shown in Figure 4-14, a message on your Web browser tells you that your request is being redirected. The message that appears on the Web browser depends on what you specified in the Web Mail Redirect database (webmaildirect.nsf).

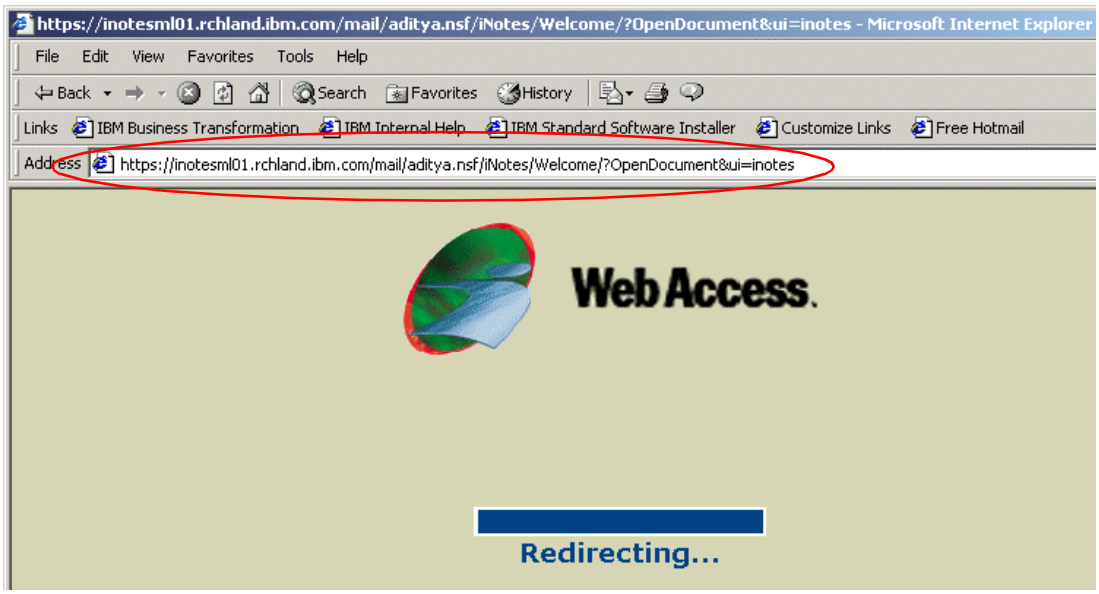


Figure 4-14 Testing Web Mail Redirect tool

5. Notice that the URL on your Web browser changes to your mail database file name and you are now redirected to your iNotes Web Access.

4.4 Enabling directory and address lookup for offline users

By default, the Domino Directory is not available to iNotes for Web Access offline users. While a user is working offline, they have no access to the Domino Directory. Therefore, they cannot perform a lookup for people other than what is in their personal contacts and groups.

To enable users to take the Domino server's Directory offline with their mail files, the *$DOLSDirectoryCatalog* parameter in the Domino server's notes.ini file must be set to the name of the Domino Directory (names.nsf) or Directory Catalog database for offline usage (relative to the data directory). If this parameter does not exist in the notes.ini file, users will not have the option to take a Domino Directory or Directory Catalog offline with their mail files.

Even though you can set up and use the Domino Directory (names.nsf) for offline users, we recommend that you create and use a Directory Catalog instead. In Domino R5, the Directory Catalog is a lighter version of the Domino Directory that contains enough information for name lookup. It is much smaller than the Domino Directory and can have a compression ratio of 255 to 1, which is very important when replicating to mobile users. The server task reads multiple directories, extracts essential information from each entry (such as Person documents), and aggregates it into a single, smaller Directory Catalog database. The result is that synchronization is faster for offline users.

Important: You must enable offline users to the Domino Directory or Directory Catalog before a user installs the offline usage and the subscription of his iNotes Web Access mail database. Otherwise, that user must remove and reinstall the subscription again to have the offline directory.

4.4.1 Creating a Directory Catalog

A Directory Catalog consolidates the most frequently requested directory information from one or more Domino directories into a single, lightweight, quick-access database. To create a Directory Catalog database, perform the following steps:

1. Launch the Domino Administrator client and create a new database by selecting the **File** pull-down menu and selecting **File-> Database-> New** or pressing Ctrl-N. Type the Domino server name, the title of the database, and the file name, such as OfflineCatalog.nsf, for example.
2. Click the **Template Server** button, and specify the Domino server name in the pop-up window.
3. Select **Directory Catalog** from the list.
4. Make sure you select the **Inherit future design changes** check box (Figure 4-15).
5. Click **OK** to create the database.

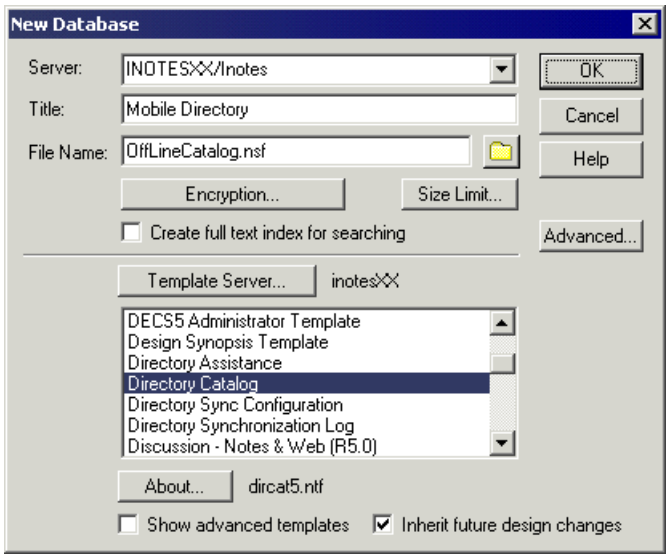


Figure 4-15 Creating a Directory Catalog database

6. A pop-up window appears asking if you want to create a full-text index for this database. If you plan to use this Directory Catalog for offline only, you do not need to create a full-text index on the server. After this database is replicated to the client, it creates the full-text

index on the client for faster name lookup. If you do not want to create the full-text on the server, click **No** (Figure 4-16).

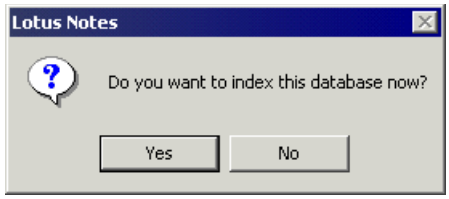


Figure 4-16 Question to create full-text index

7. You are now in the blank Directory Catalog database. From the pull-down menu, select **Create-> Configuration**.
8. Some of the fields in this new document are already populated (Figure 4-17). Specify the names of the Directory database such as names.nsf. If you also have secondary directory databases, you can specify them here as well.

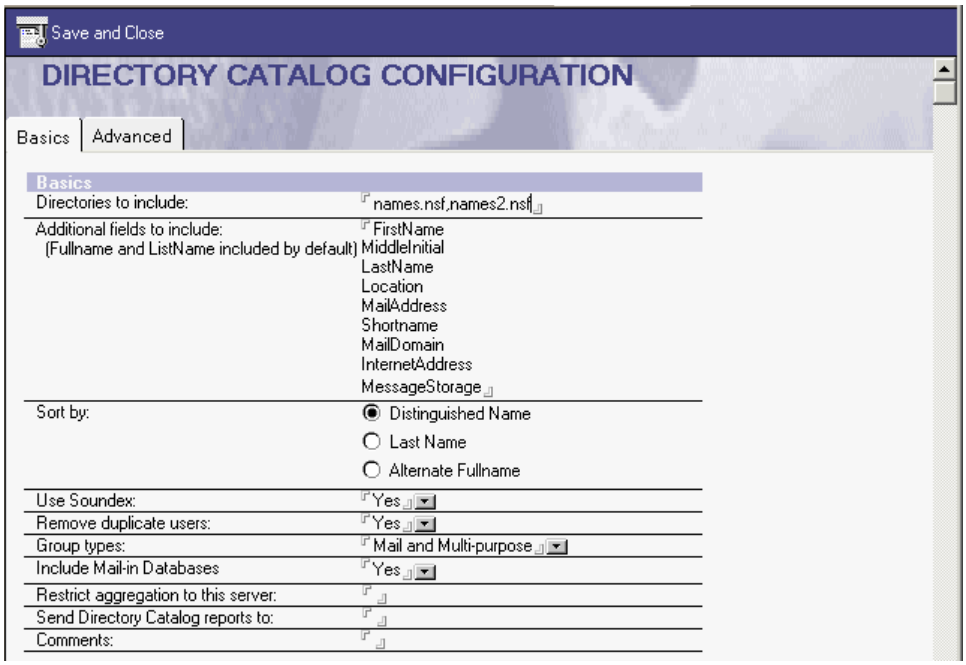


Figure 4-17 Directory Catalog Configuration document

9. Click **Save and Close** to save the document.
10. You have to enable the Directory Cataloger in the Domino server document. To do so, select the **Configuration** tab and select the **All Server Documents** view.
11. Locate the server document of your Domino server and double-click it or click the **Edit Server** button.
12. Select the **Server Tasks** tab and then the **Directory Cataloger** tab (Figure 4-18).

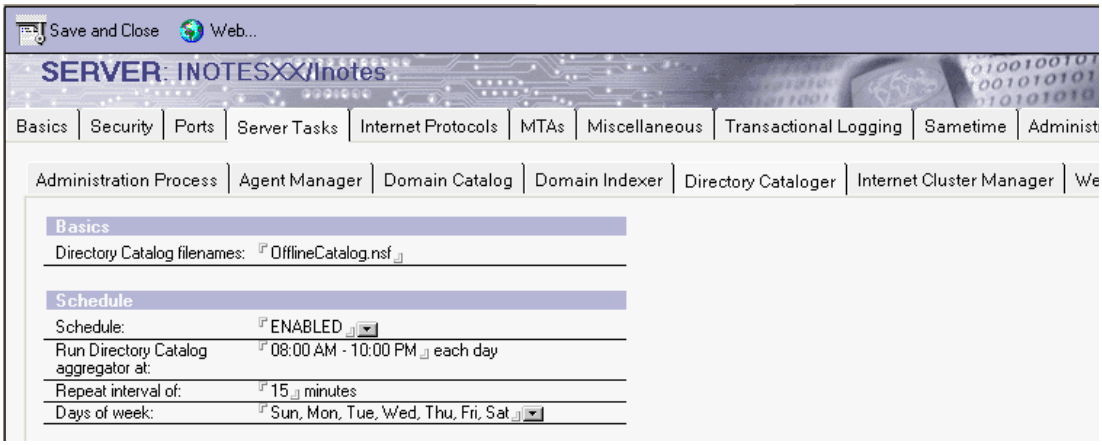


Figure 4-18 Enabling the Directory Cataloger task

13. Type the name of your Directory Catalog database, for example `OfflineCatalog.nsf`.
14. Select **Enabled** in the Schedule field. You can change the frequency at which you want to run the Directory Cataloger by changing the other three fields already populated by default values.
15. Click **Save and Close**.
16. Go to your Domino server console.
17. Type the command **`load DIRCAT`** on the Domino server console command line. This command runs the Dircat task to initially populate the Directory Catalog database that you just created.
18. Verify that the Directory Catalog task is running by typing the command **`show tasks`** in the Domino server console command line. You see the status of the Directory Cataloger is *Idle* (Figure 4-19).

```
                        Work with Domino Console
                                                              Server: INOTESXX
Previous subcommands and messages:
   Database Server      Server for Notes Administrator/Inotes on TCPIP
   Directory Cataloger  Idle
   HTTP Web Server      Listening on port(s) 80
   Event Monitor        Idle
   Calendar Connector   Idle
   Schedule Manager     Idle
   Admin Process        Idle
   Agent Manager        Executive '1': Idle
   Agent Manager        Idle
   Stats                Idle
   Indexer              Idle
   Router               Idle
   Replicator           Idle


Enter a Domino subcommand.
===>
F3=Exit   F5=Refresh   F6=Print   F9=Retrieve
F17=Top   F18=Bottom   F21=Command line
```

Figure 4-19 Show tasks in the Domino server console: Directory Cataloger task

19. Go back to your Lotus Notes client workspace. Open the Directory Catalog database and select **User** from the left navigator. You see a list of users from both the primary and secondary directory databases as shown in Figure 4-20.

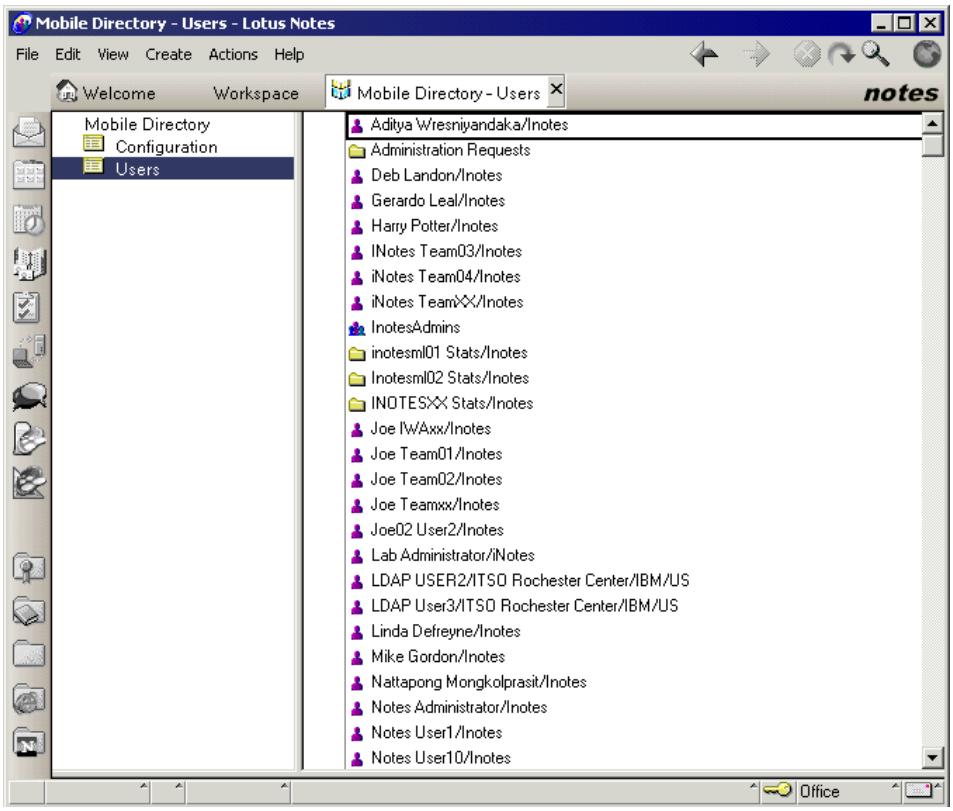


Figure 4-20 Users view in the newly created Directory Catalog database

4.4.2 Changing notes.ini

To take your Directory Catalog offline, you need to add the keyword *$DOLSDirectoryCatalog* to the notes.ini file of your Domino server. There are several ways to edit the Domino server's notes.ini file on the iSeries server:

- Transfer this file to a PC, edit it with a PC editor, and then send it back to the iSeries server
- Use the 5250 CL command Edit File (EDTF)
- Use Operations Navigator
- Use the Domino server console **`set configuration`** command

For details on editing the Domino server's notes.ini file on the iSeries server, refer to the redbook *Lotus Domino for AS/400 R5: Implementation*, SG24-5592.

We recommend that you use either the 5250 CL command or Operations Navigator to avoid incorrect file ownership and data transfer format. Besides, these options are easier to do.

Method 1: Using a 5250 CL command

We recommend that you use a 5250 emulator software that supports the 27x132 column display screen, such as IBM Client Access or IBM Personal Communications. The screen size to which the parameter should be set to is the 27x132 column. Perform the following steps to change the Domino server's notes.ini file:

1. Open a 5250 session and sign on with a proper authorized user profile such as QSECOFR.
2. Run the Work with Domino Servers (WRKDOMSVR) CL command. A list of all of your Domino servers appears as shown in Figure 4-21.

```
                          Work with Domino Servers
                                                              System:   AS06
Type options, press Enter.
  1=Start server     2=Change server   5=Display console   6=End server
  7=Submit command   8=Work console    9=Work server jobs
  11=Change current directory   12=Work object links   13=Edit notes.ini

     Domino                             Domino
Opt  Server                Subsystem    Status
     *HTTPSETUP            QDOMINOHT    *STARTED
     MAILDOMXX             MAILDOMXX    *ENDED
     MAILDOM02             MAILDOM02    *ENDED
     MAILSVR               MAILSVR      *ENDED
     APPLSVR               APPLSVR      *ENDED
     INOTESML01            INOTESML01   *STARTED
     INOTESML02            INOTESML02   *ENDED
13   INOTESXX              INOTESXX     *STARTED
     INOTES01              INOTES01     *STARTED
                                                                      More...
Parameters or command
===>
F3=Exit      F4=Prompt   F5=Refresh   F9=Retrieve   F11=Display path
F12=Cancel   F17=Top   F18=Bottom   F22=Display entire field   F24=More keys
```

Figure 4-21 WRKDOMSVR command

3. Locate your Domino iNotes Web Access server and use option **13** to edit the notes.ini file of the Domino server. The content of the file appears as shown in Figure 4-22.

```
Edit File: /notes/inotesxx/notes.ini
Record :     1  of    90 by  10                Column :   1    64 by 126
Control : B

MD
....+....1....+....2....+....3....+....4....+....5....+....6....+....7....+....8....+...
.9....+....0....+.
   ************Beginning of data**************
   [Notes]
   Directory=/notes/inotesxx
   KitType=2
   NPN=1
   UNICODE_DISPLAY=1
   NSF_HOOKS=QNNDIHK
   CleanupScriptPath=CALL QNOTES/NSD
   Passthru_LogLevel=0
   Console_LogLevel=2
  VIEWIMP1=Lotus 1-2-3,0,_IWKSV,,.WKS,.WK1,.WR1,.WRK,.WK3,.WK4,,4,
   VIEWIMP2=Structured Text,0,_ISTR,,.LTR,.CGN,.STR,,1,
   VIEWIMP3=Tabular Text,0,_ITAB,,.PRN,.RPT,.TXT,.TAB,,1,
   VIEWEXP1=Lotus 1-2-3,0,_XWKS,,.WKS,.WK1,.WR1,.WRK,,4,
   VIEWEXP2=Structured Text,0,_XSTR,,.LTR,.CGN,.STR,,1,
   VIEWEXP3=Tabular Text,1,_XTAB,,.LTR,.RPT,.CGN,.TAB,,1,
   EDITIMP1=ASCII Text,0,_ITEXT,,.TXT,.PRN,.C,.H,.RIP,,1,
   EDITIMP2=Microsoft RTF,0,_IW4W,_IRTF,.DOC,.RTF,,2,

F2=Save  F3=Save/Exit   F12=Exit   F15=Services   F16=Repeat find   F17=Repeat change
F19=Left   F20=Right
```

Figure 4-22 Editing the notes.ini file from a 5250 screen

4. Go to the end of file using Page Down or type a **b** on the Control line to go to the bottom of the file. Insert a new line by typing an **i** in front of the last line and press Enter.

   Note: It is not important where you add the new configuration. Adding it at any point in the notes.ini file will work. However, it makes more sense and is easier to verify at a later time to add the extra configuration lines at the end of file.

5. In the new line, enter:

   ```
   $DOLSDirectoryCatalog=OfflineCatalog.nsf
   ```

   Here *OfflineCatalog.nsf* is the name of your Directory Catalog file in the data directory of the Domino server (Figure 4-23).

```
 Edit File: /notes/inotesxx/notes.ini
 Record :    80  of    91 by  10               Column :   1    59 by 126
 Control :

CMD
....+....1....+....2....+....3....+....4....+....5....+....6....+....7....+....8....+...
.9....+....0....+
   TRANSLOG_UseAll=0
   TRANSLOG_Style=0
   TRANSLOG_Performance=2
   TRANSLOG_Status=0
   MTEnabled=0
   SCHEDULE_VERSION=3
   WebAdminSetup=509
   DominoConfigLevel=3
   DDETimeout=10
   DefaultMailTemplate=mail50.ntf
   Log_DirCat=1
   $DOLSDirectoryCatalog=OfflineCatalog.nsf
    ************End of Data*********************

F2=Save  F3=Save/Exit   F12=Exit   F15=Services   F16=Repeat find   F17=Repeat change
F19=Left   F20=Right
```

Figure 4-23 Adding a new keyword $DOLSDirectoryCatalog to notes.ini

6. Press F3 to save the file. You see the status message “File has changed” at the bottom of the screen. Press F3 again to save and exit.
7. Restart the Domino server for this change to take effect.

Method 2: Using Operations Navigator

Perform the following steps to change the Domino server’s notes.ini file using Operations Navigator:

Note: You must have IBM Client Access and Operations Navigator installed with the Domino plug-in to perform the following steps.

1. Launch Operations Navigator and sign on with proper authorized user profile such as QSECOFR.
2. Expand your iSeries server on the left pane to **Network-> Servers-> Domino**. If a window pops up for the Domino Administrator ID’s password appears, enter the password here (Figure 4-24).

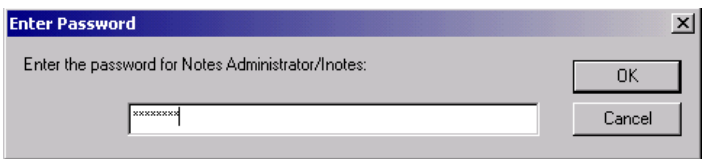


Figure 4-24 Entering the Domino server’s Administrator ID password

3. A list of your Domino servers appears on the right pane. Right-click the Domino iNotes Web Access server and click **Properties**.

4. From the Properties window, click the **Initialization File** tab. A read-only mode of the notes.ini file is shown (Figure 4-25). Click **Edit** to go to edit mode. A warning window appears that asks you to confirm that you want to modify the notes.ini file. Click **Yes**.

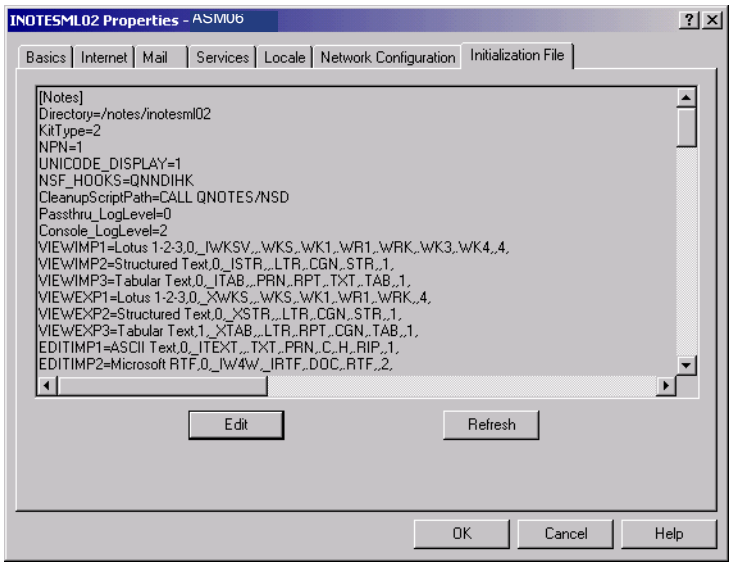


Figure 4-25 Initialization File tab in Operations Navigator containing notes.ini in read-only mode

5. Page down to the end of the file, insert a new line, and enter the following line:

   ```
   $DOLSDirectoryCatalog=OfflineCatalog.nsf
   ```

   Here *OfflineCatalog.nsf* is the name of your Directory Catalog file in the data directory of the Domino server (Figure 4-26).

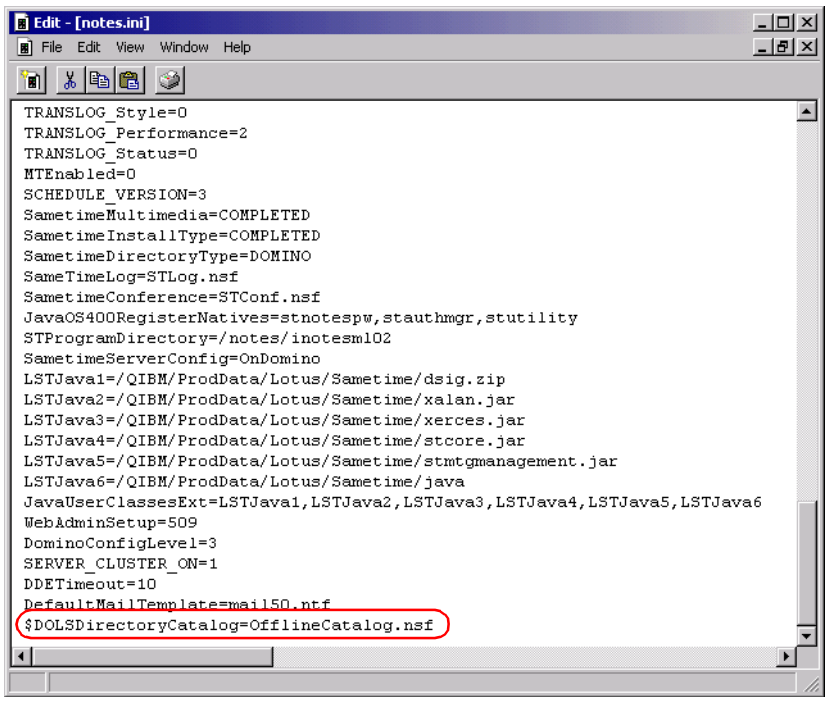


Figure 4-26 Adding the new keyword $DOLSDirectoryCatalog to notes.ini

6. Save and close this file.

7. Restart the Domino server for this change to take effect.

Method 3: Using the set configuration command

You can also type the following command in the Domino server console to enable the DOLS offline directory. To do so, run the following command in the Domino server console:

```
set configuration "$DOLSDirectoryCatalog=OfflineCatalog.nsf"
```

Here *OfflineCatalog.nsf* is the name of your Directory Catalog file in the data directory of the Domino server. This command actually creates an entry in your notes.ini file the same as the previous methods and the configuration takes affect immediately. However, we recommend that you display the notes.ini file using either of the above two methods to make sure that the change is permanently made to the Domino server.

4.4.3 Deleting a Lotus iNotes Sync Manager subscription

If a mail subscription was installed before you enabled the offline directory, you must reinstall the mail subscription at the client. To remove an existing mail subscription, perform the following steps:

1. On the user's client, open the Lotus iNotes Sync Manager window, and select the subscription for the mail database file.
2. Click the **Delete** icon, as shown in Figure 4-27.

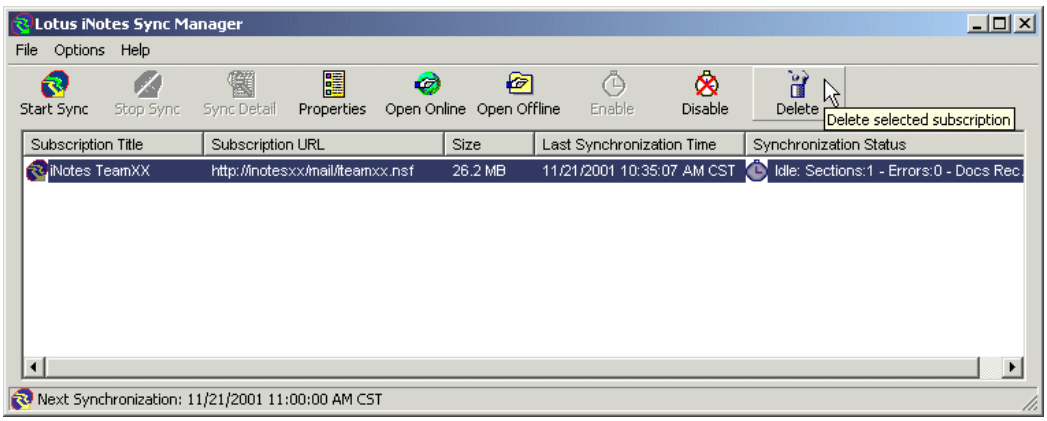


Figure 4-27 Deleting an existing mail subscription

3. You receive a confirmation window displaying the message, "Are you sure you want to delete all of the files for this operation?". Click **Yes**.
4. Close the Lotus iNotes Sync Manager window. A confirmation window appears, as shown in Figure 4-28. Click **Yes**.

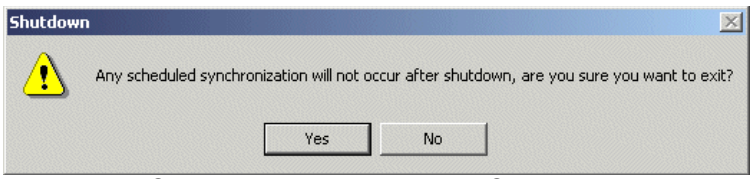


Figure 4-28 Shutting down the Lotus iNotes Sync Manager

4.4.4 Reinstalling your subscription

After you modify the Domino server setting and restart the Domino server, you are ready to install/reinstall your mail subscription. This time you download both your mail file and the Directory Catalog file. Keep in mind this process is transparent to the end user. To learn how to install an offline client and subscription, see 2.5.2, “Offline clients with Lotus iNotes Sync Manager” on page 46.

Note: By default, the replica of Directory Catalog is kept on the offline workstation in the same data directory as the subscription of the iNotes Web Access mail database.

4.4.5 Testing the offline directory

After you install the new subscription, the Directory Catalog is also replicated to local client and all addresses are now available for lookup even when the user is running in offline mode. Perform the following steps to verify that offline directory is now replicated and working properly on the client:

1. Open the Lotus iNotes Sync Manager. Select the mail database subscription, and click the **Open Offline** button. You may also click the mail icon similar to the one shown in Figure 4-29 on the user’s desktop.

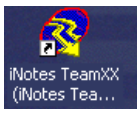


Figure 4-29 Local offline mail client icon on the workstation

2. Log on with the iNotes Web Access username and password.
3. From your Web browser, click **Mail-> New Message**. A compose new message window opens.
4. Click **To**. From the Select Addresses window, open the pull-down list on the Search field. A new address book is now listed besides the Contacts and Offline Address book (Figure 4-30).

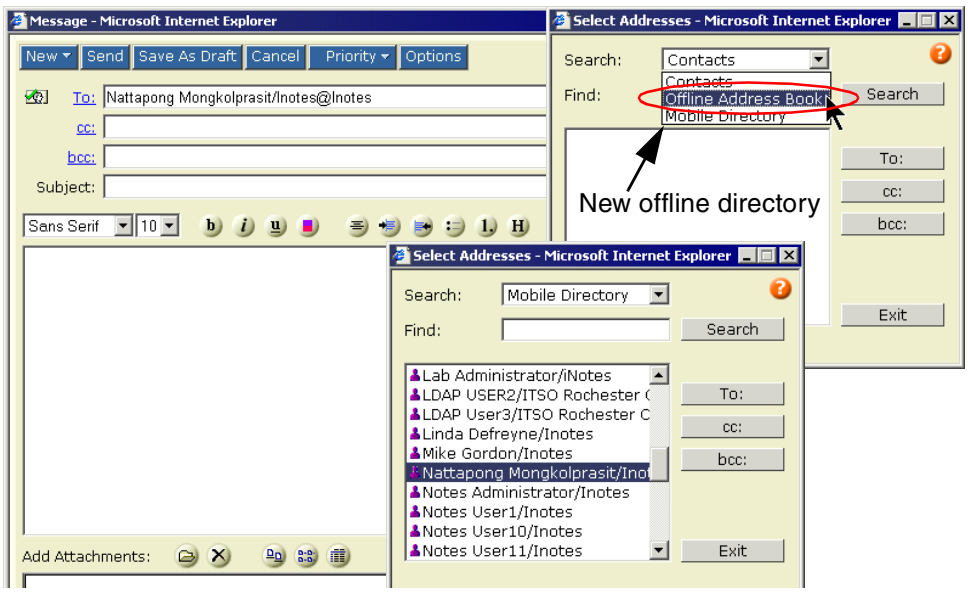


Figure 4-30 New offline directory and name lookup are now available when working offline

5. Select your new address book. This is the local replica of the Directory Catalog file.
6. Select some recipients, and click **Exit**. Put some text in your memo and send it.
7. Close the window.

Restriction: There is a difference in whether you perform a name lookup in Contact list or Domino Directory or whether you do it in Directory Catalog. In the Contact list or Domino Directory, searching returns the result of only the matched entries. The Directory Catalog positions to the first matched entry among all entries in the Directory Catalog.

Checking your offline Directory Catalog from a Lotus Notes client

The iNotes Web Access client does not require a Lotus Notes client. But if this workstation has a Lotus Notes client installed, you can check the current offline Directory Catalog that is being used and associated with that user's mail subscription. To check the current Directory Catalog on the client, perform these steps:

1. Launch the Lotus Notes client, and open the mail file.
2. On the menu bar, select **Actions-> Edit Offline Configuration document**.
3. Click the **Rules** tab. Note that the filename specified in the $DOLSDirectoryCatalog keyword was added automatically to the field Directory catalog.

4.5 Enabling other applications to be used offline

Sometimes when using mail and calendar offline, users have to refer to some information being kept in other databases. In their mail, there may be only a DocLink or HotSpot icon that links to the information in another database. To gain access to those databases when working offline, you also have to enable DOLS for those databases.

Some applications are composed of multiple databases that have to be synchronized together. In this case, you should add only one subscription for that application and select other databases as associated files to be replicated with that subscription. See Figure 4-31.

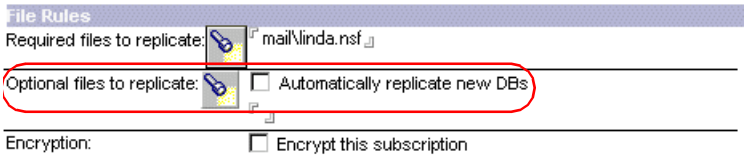


Figure 4-31 Optional files to be replicated

You can enable application databases by importing the DOLS Resource Template (dolres.ntf) into the application database. Please refer to the *Domino Off-Line Services* help in dols_help.nsf for more information.

iNotes Web Access is one of the DOLS-enabled databases. When you enable Directory Catalog for offline access, the Directory Catalog is not set to be a separate subscription but included as a part of your iNotes Web Access mail subscription. Every time you synchronize your mail database to the Domino server, the Directory Catalog is also updated.

Tip: Each subscription can have a different schedule and frequency of synchronization. Some applications may not be required to be frequently updated. This way you can reduce the time and amount of data in synchronization.

4.6 Integration with Sametime 2.5

Lotus Sametime merges Web server technology, Lotus Notes technology, T.120 data-conferencing technology, and online awareness technology to allow Lotus Notes and Web browser clients to participate in live, interactive online meetings, instant messaging, and group chat sessions. Sametime enhances the workplace by placing powerful, real-time collaboration tools on the desktop of every user in a Sametime community. Now you can combine these technologies with the reliability and scalability of an iSeries server.

With Sametime integration, iNotes Web Access users can receive and send instant messages. Users launch Sametime by clicking the Chat icon on the iNotes Web Access Welcome page and can use community services without requiring a re-logon or a separate client installed. Users can create their own buddy list, add names by either looking up through the name picker or simply type them in from the Domino Directory, or divide their buddy list into groups. See the Domino/Notes 5.0.9 Release Notes for details on configuring Sametime with iNotes Web Access.

For iSeries, you may install the Sametime server on a separate server or on the same server as iNotes Web Access. Installing on the same iSeries server gives you better benefit in integration, ease of management, and total cost of ownership.

When running a Sametime server on other platforms, Sametime Version 2.0 or above is required for integration with iNotes Web Access. However, on iSeries, Sametime Version 2.5 or above is required.

Note: You may use the public beta release of Sametime Version 1.5 on iSeries for integration with iNotes Web Access. But, keep in mind that it is not officially supported by IBM or Lotus.

This section explains how to configure the iNotes Web Access integration with Sametime 2.5 on the iSeries server. Configuring Sametime on a separate iSeries server is also similar to this. We assume that you have already configured the basic Domino iNotes Web Access server and it is up and running. At the time of writing this redbook, Sametime 2.5 was just made available on the iSeries. Therefore, we also provide details for installing Sametime on the iSeries server in this section. For additional information about setting up the Sametime server on iSeries for services other than iNotes Web Access integration, please refer to product documentation on the Sametime installation CD.

The overview procedure for configuring Sametime for integration with iNotes Web Access is summarized here:

1. Prepare and plan: Hardware, software, and capacity planning for additional workload.
2. Install the Sametime license.
3. Prepare a Domino server for Sametime to run on.
4. Add a Sametime server to a Domino server.
5. Configure Sametime and iNotes Web Access servers.

4.6.1 Additional server requirements for Sametime

Integration with the Sametime server requires additional hardware and software, in addition to the iSeries hardware and software requirements for iNotes Web Access as described in 2.3, “iSeries server requirements” on page 19. You must also plan for extra system capacity required by the Sametime server.

The additional iSeries hardware and software requirements are:

- Minimum 256 MB (512 MB is recommended)
- Minimum available disk space 500 MB
- IBM Developer Kit for Java 5769-JV1 or 5722-JV1 with JDK 1.1.x option

> **Important:** Sametime 2.5 does not support JDK 1.2 or JDK 1.3. By default, OS/400 V5R1 comes with JDK 1.2 or JDK 1.3. To use Sametime, you need to also install 5722-JV1 Option 4 JDK1.1.8.

- Lotus Sametime for iSeries (5733-LST) with the same language version as the Domino iNotes Web Access server (For more information about how to install additional language files, see the documentation in Sametime language pack CD.)
- (optional) OS/400 Option 12, Host Servers – for easier management of Domino and iSeries in a graphical interface using Operations Navigator with the Domino plug-in installed
- (optional) Client Access Express for Windows – for easier management of Domino and iSeries in a graphical interface using Operations Navigator with the Domino plug-in installed
- Lotus QuickPlace is not required by Sametime. But if you plan to run QuickPlace 2.0.8 in the same partition with Sametime 2.5, Domino 5.0.8.01 and upgrading to QuickPlace 2.0.8.01 are required.
- PTFs:
  - For more information on the latest PTFs, see the following Web sites:

    `http://www.ibm.com/eserver/iseries/domino/support`
    `http://www.ibm.com/eserver/iseries/service`
  - If you plan to install Sametime on one of the iSeries Dedicated Server for Domino (DSD) models, you must use V5R1 with the DSD Enhanced Support for Java installed (available in September 2001). PTF RE01200 is an identifier that indicates whether your system already has the necessary version of the iSeries Licensed Internal Code (level RSC) installed. On any OS/400 command line, type the following command and press Enter to determine whether PTF RE01200 is already on your system:

    ```
    DSPPTF LICPGM(5722999) SELECT(RE01200)
    ```

    If PTF RE01200 is not on your system, you do not have the RSC level installed and should consult the following Web site for more information:
    `http://www.ibm.com/eserver/iseries/domino/dsdjava.html`

> **Note:** Although V4R5 is supported, in order to save the content of the Whiteboard in Sametime or to use Sametime 2.5 on the DSD model, OS/400 V5R1 is required.

4.6.2 Installing Lotus Sametime 2.5 on iSeries

Before you configure the Sametime server, make sure that you configure the TCP/IP configuration, set up the IP address for the Sametime server, update the hostname with its IP address in OS/40O TCP/IP host table, and add this server in the DNS server.

If you have not installed the Sametime license code in the iSeries, follow these steps:

1. Sign on to your iSeries server with a user profile that has at least *ALLOBJ and *SECADM authorities.
2. Insert the Sametime for iSeries CD into your iSeries CD-ROM drive.

3. Type **LODRUN** on the OS/400 command line and press F4 to prompt the command.
4. On the LODRUN display (Figure 4-32), type ***OPT** in the Device field and press Enter.
5. Type **/OS400** in the Directory field.

```
                          Load and Run (LODRUN)

Type choices, press Enter.

Device . . . . . . . . . . . . . > *OPT          Name, *TAP, *DKT, *OPT
Directory  . . . . . . . . . . .   /OS400
```

Figure 4-32 LODRUN command to install SameTime

6. Press Enter.
7. You see the Sametime option display. Type option **1** next to the Sametime product option and press Enter to begin installation. You see status messages as the system installs the software. Wait until Sametime installation is complete.

4.6.3 Adding Sametime to an existing Domino server

For general Sametime server deployment, unlike Sametime on Windows which supports “Web-only standalone” and “merged configuration”, Sametime on iSeries installation supports only “merged configuration”. This means you have to run Sametime as an add-on Domino application on top of a Domino server.

It is easier to configure Sametime Community Services (chat) to work properly with iNotes Web Access if you configure the Sametime server in the same Domino Domain as your Domino iNotes Web Access servers because Sametime uses the Domino Directory for user management and also serves the integration.

It is possible to run Sametime and iNotes Web Access in the same Domino partitioned server, in the production environment. However, we recommend that you configure Sametime in a separate Domino partitioned server which may reside in the same physical iSeries server or LPAR as the other Domino servers for better performance, ease-of-management, and security. This is due to the fact that a Sametime server supports multiple services, and the services are served through Domino tasks. Sharing server tasks between Sametime and iNotes Web Access may result in longer response time to the users.

Adding Sametime to a Domino server can be done by either using a 5250 CL command or Operations Navigator.

Note: Even though you can have multiple Domino servers on an iSeries server, only one Sametime server can be up and running at the same time on an iSeries server or a logical partition (LPAR).

Preparing a Domino server for Sametime

You can use the OS/400 Configure Domino Server (CFGDOMSVR) CL command or GUI-based configuration using a Web browser or Operations Navigator to configure a new additional Domino server in your Domino Domain. Make sure that you enable the HTTP service and configure it as a partitioned server if you are running multiple Domino servers on a single iSeries server or LPAR. For more information about installation and configuring Domino servers, refer to *Lotus Domino for AS/400 R5: Implementation*, SG24-5592.

In order for Sametime to display the timestamp while chatting properly, verify that the system values for date (QDATE), time (QTIME), and offset from Greenwich Meantime (QUTCOFFSET) are set to match the time zone and current daylight savings times of the Domino server where you plan to install Sametime.

Important: If you change the system values, you must stop and restart the Domino server so it will reflect the change.

To change the time zone offset, you may use the 5250 CL command Work with System Values (WRKSYSVAL QUTCOFFSET) and option 2 to change to the appropriate value for your time zone. Or you can use Operations Navigator, by selecting **Configuration and Service -> Date and Time** as shown in Figure 4-33.

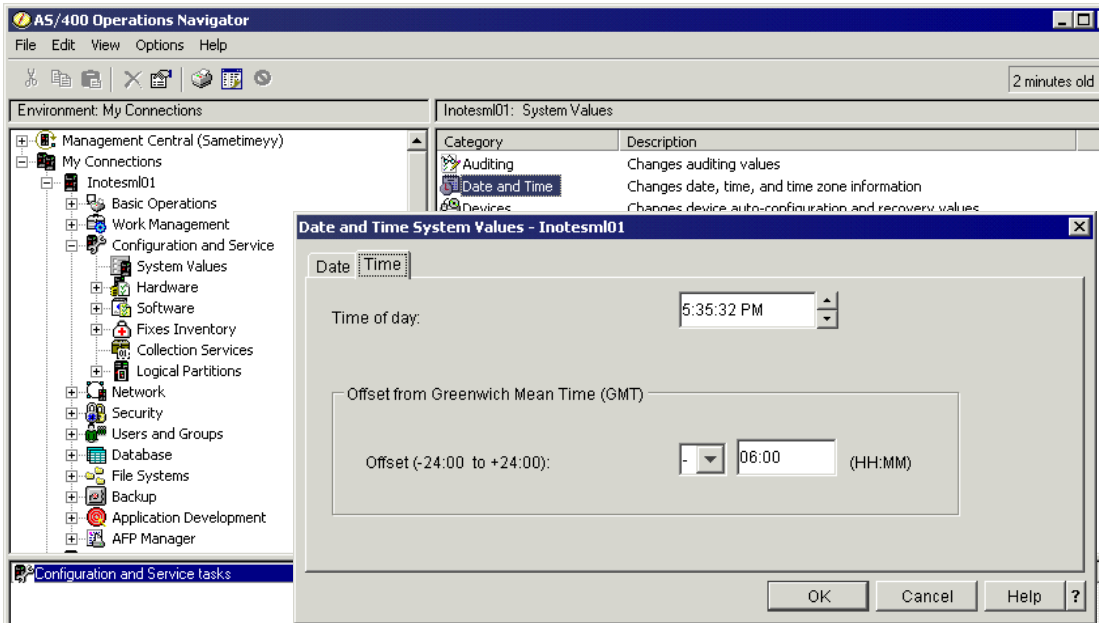


Figure 4-33 Changing the date, time, and universal time zone using Operations Navigator

Before you add the Sametime server, make sure the Domino server that Sametime will run on is ended.

Adding Sametime using a 5250 CL command

Perform the following steps to use a 5250 session to configure the Sametime server on a Domino server:

1. Sign on to the iSeries server with a user profile enabled with *ALLOBJ, *SECADM, *IOSYSCFG, and *JOBCTL authorities such as QSECOFR.
2. Run the command Work with Domino Servers (WRKDOMSVR) and use option **6** to end the Domino server on which Sametime will run. Press PF5 and wait until the Domino server status becomes *ENDED.
3. Run the Add Sametime to Domino (ADDLSTDOM) command (Figure 4-34):

```
ADDLSTDOM SERVER(SAMETIME) OPTION(*ALL)
```

```
                      Add Sametime to Domino (ADDLSTDOM)

 Type choices, press Enter.

 Domino server name . . . . . > SAMETIME



 Option . . . . . > *ALL          *BASE, *MULTIMEDIA, *ALL
 Directory type . . . . . .   *DOMINO      *DOMINO, *LDAP
```

Figure 4-34 ADDLSTDOM command

4. Wait until the setup is complete. A screen similar to the example in Figure 4-35 appears.

```
   Switching to the server identity...
    10%  ...
   Setting up authentication system...
    30%  ...
   Setup of the authentication system completed.
    55%  ...
   Sametime Server setup completed successfully.
    100%  ...
   Press ENTER to end terminal session.

===>
F3=Exit F4=End of File F6=Print F9=Retrieve F17=Top
 F18=Bottom  F19=Left   F20=Right F21=User Window
```

Figure 4-35 Adding Sametime completion screen

5. Press Enter to finish the setup.
6. Start the Domino Sametime server.

Adding Sametime using Operations Navigator

Perform the following steps to add the Sametime server to an existing Domino server with Operations Navigator:

1. Open Operations Navigator. Sign on with a user profile enabled with *ALLOBJ, *SECADM, *IOSYSCFG, and *JOBCTL authorities such as QSECOFR.
2. Expand the left navigation pane to **Network-> Servers-> Domino**. You may be prompted for a Domino server's Administrator ID password.
3. In the right pane, right-click the Domino server ***HTTPSETUP** and click **Start**.
4. Right-click the Domino server to be used for Sametime and select **Add Sametime** (Figure 4-36).

   If you already added Sametime to this server, you will not see this option (in that case, the Remove Sametime option appears instead).

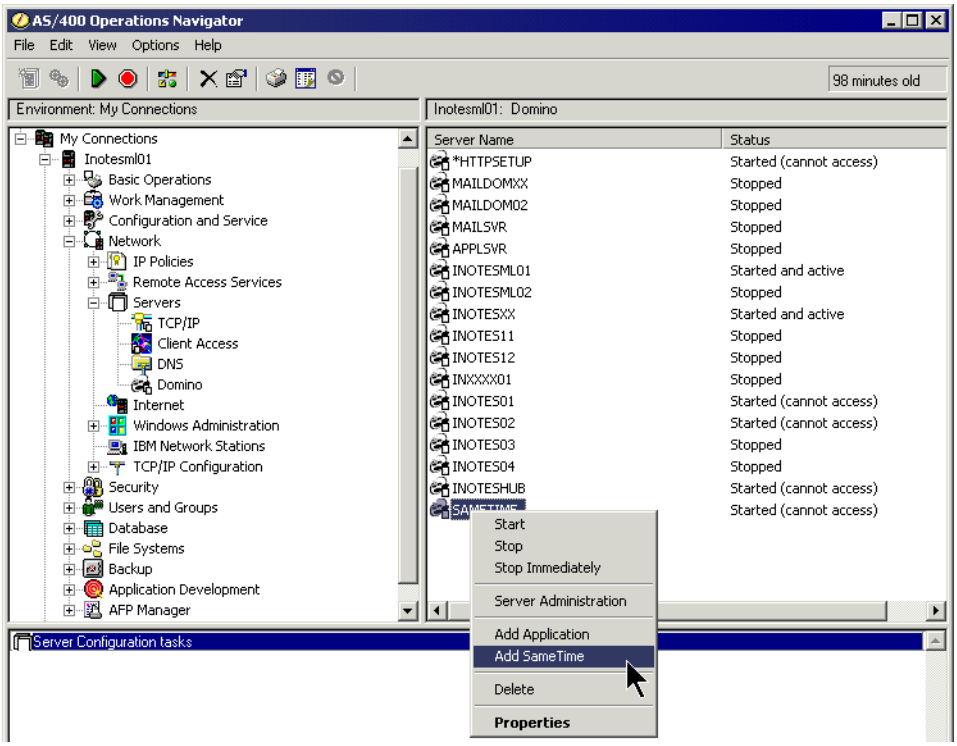


Figure 4-36 Adding Sametime with Operations Navigator

5. A Sametime server set up on the Web browser window appears as shown in Figure 4-37. Specify an OS/400 user profile and password enabled with *ALLOBJ, *SECADM, *IOSYSCFG, and *JOBCTL authorities such as QSECOFR. Then click **Next**.

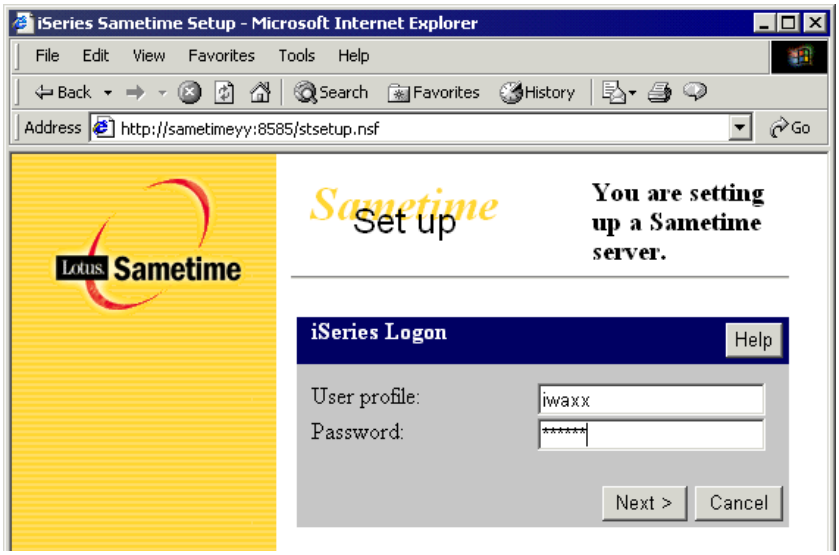


Figure 4-37 Sametime setup window

6. Verify the Domino server name. If you want to start this Sametime server right after setup is complete, select **Yes** and click **Next** (Figure 4-38).

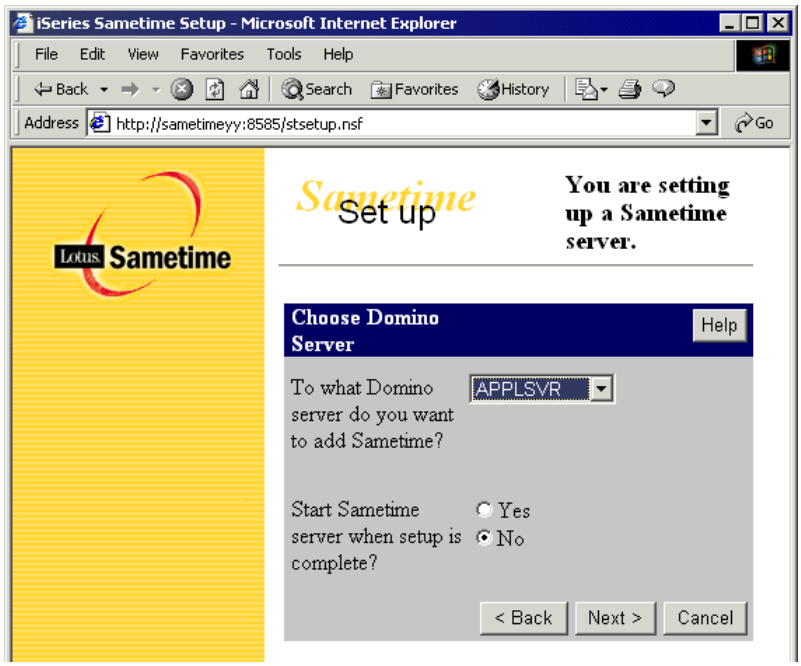


Figure 4-38 Verifying the Domino server on which Sametime server will run

7. If you do not plan to deploy multimedia services, such as voice and video, you only need the base option. In this release, Sametime with iNotes Web Access integration client does not support multimedia services. But if you plan to use this server for other Sametime clients on this server, you may want to enable Sametime with multimedia (Figure 4-39).

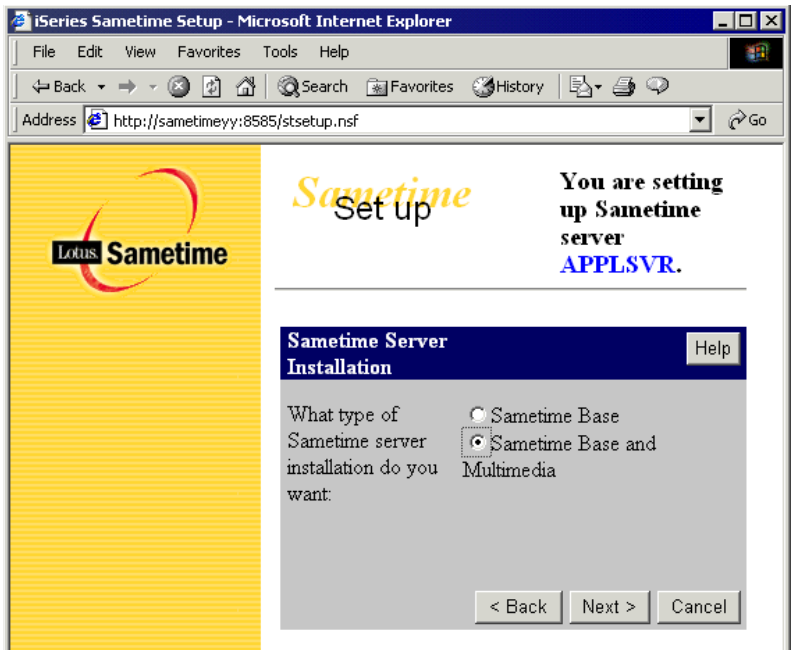


Figure 4-39 Choosing the Sametime services to be deployed

8. Select the directory that you want to use. In most cases for iNotes Web Access, we use and share Notes user IDs and passwords among Sametime and other Domino servers in the domain. To simplify the setup, we use the Domino Directory here (Figure 4-40).

Sametime supports two types of directory access, LDAP and Domino Directory. You can use multiple directories but you have to *exclusively* select which type of access you plan to use. If you select LDAP here and also want to use another directory from the Domino Directory, you have to configure LDAP on that Domino server and configure Sametime to access that Domino Directory using LDAP. For more information, please refer to Sametime 2.5 installation guide on iSeries.

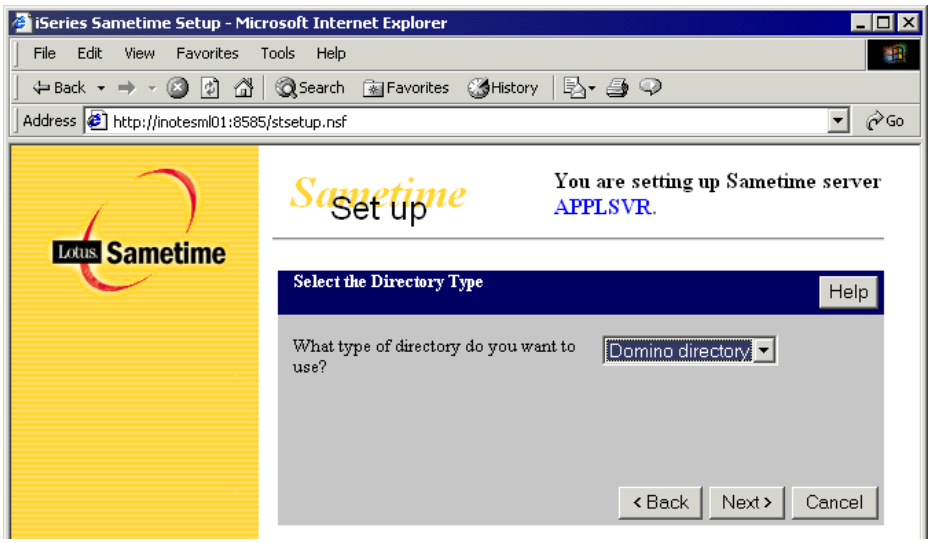


Figure 4-40 Selecting the type of directory to be used by Sametime

9. If you have other Sametime servers running in the same Domino domain, you may want to copy the configuration from another Sametime server. If this is the first Sametime server, click **No** and then click **Next** (Figure 4-41).

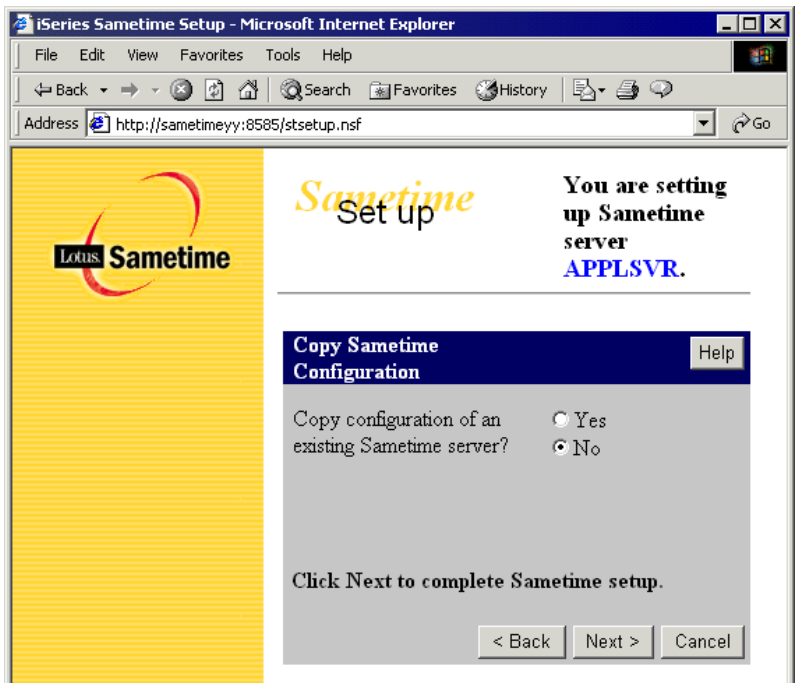


Figure 4-41 Selecting to copy a configuration from another existing Sametime server

10. A window appears showing a status of the files that are now being copied and Sametime is being configured. Wait until the configuration finishes. This step may take up to 2 to 3 minutes (Figure 4-42).

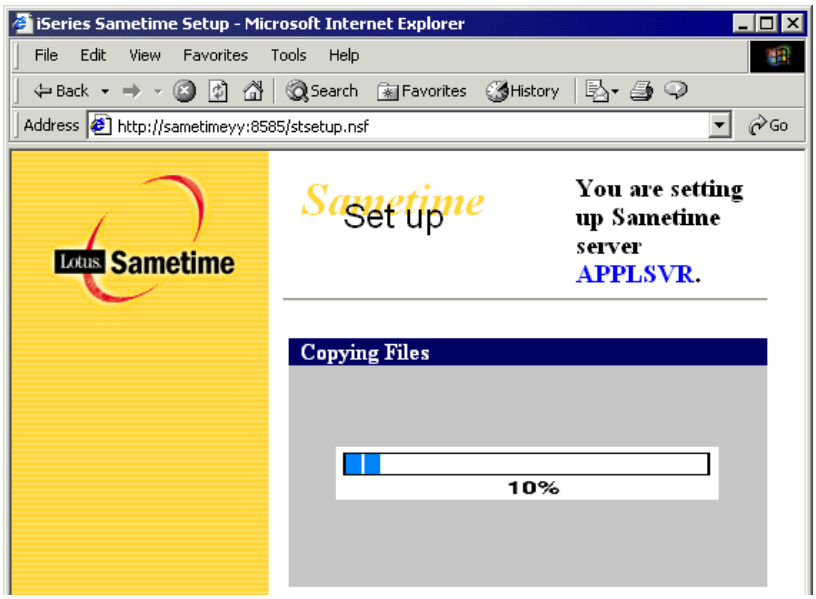


Figure 4-42 Progress of copying and configuring Sametime

11. A window appears similar to the example in Figure 4-43 showing that the configuration is now finished. Click the **Finish** button to quit.

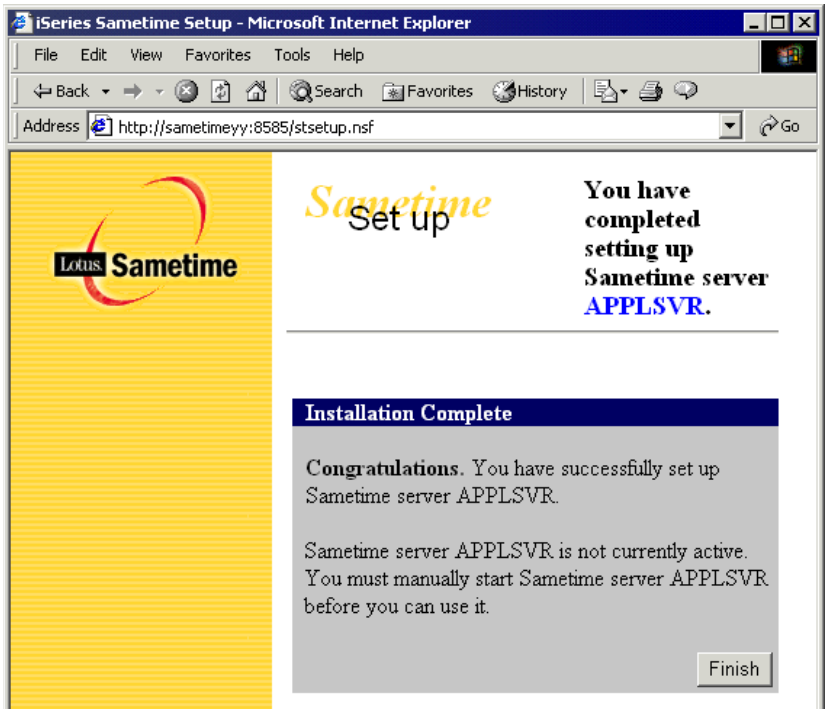


Figure 4-43 Adding Sametime is now finished

12. Return to the Operations Navigator window. Right-click the Domino Sametime server and select **Start** to start the Domino Sametime server.

After you add the Sametime server to the Domino server, you may want to verify whether Sametime is configured and working properly. Sametime uses the *Staddin2 task*. It is added to the Domino server's notes.ini file during the adding of Sametime to the Domino process. For iNotes for Web Access integration, Sametime uses the *HTTP task* to serve the Java applets to the iNotes Web Access client. To check if the Sametime and HTTP tasks are up and running, go to the Domino server console and run the **show tasks** command (Figure 4-44).

```
                        Work with Domino Console
                                                                Server:   INOTESML02
 Previous subcommands and messages:

    Sametime Server      Running
    HTTP Web Server      Listening on port(s) 80, 443
    Event Monitor        Idle
    Calendar Connector   Idle
    Schedule Manager     Idle
    Admin Process        Idle
    Agent Manager        Executive '1': Idle
    Agent Manager        Idle
    Stats                Idle
    Indexer              Idle
    Router               Idle
    Replicator           Idle

 Enter a Domino subcommand.
 ===>
F3=Exit   F5=Refresh   F6=Print   F9=Retrieve
 F17=Top   F18=Bottom   F21=Command line
```

Figure 4-44 Work with Domino server console: show tasks command

Editing the Domino server document

On the iSeries server, most of the necessary configurations are automatically set when the Sametime server is added. However, you may want to specify other parameters, such as a default home page, or you may want to make sure that all parameters are set properly. Perform the following steps to review the Sametime parameters:

1. Start the Domino Administrator client. Make sure that you are working on the correct Domino server that is running Sametime.
2. Go to the Domino server document for this Domino Sametime server. Click the **Edit** button. Verify the parameter values of the Sametime server listed in Table 4-1.

Table 4-1 Parameter values for the Sametime server in the Domino server document

Tab	Field	Setting value
Basics	Is this the Sametime server	Yes*
	Fully qualified Internet host name	Your Sametime server with domain, for example: sametime.mycompany.com **Note:** Although it is not required by Sametime, we recommend you set it because it is required by some settings such as session authentication.

Tab	Field	Setting value
Security	Run unrestricted LotusScript/Java agents	Sametime Development/Lotus Notes Companion Products*
Ports -> Notes Network Ports	Ports	TCPIP* **Note:** This must be *specified* exactly as shown.
Internet Protocols -> HTTP	Home URL	stcenter.nsf?Open **Note:** This is the default Sametime home page that we use to verify installation in the next section. You can specify another URL here.
	Host Name	The TCP/IP hostname of your Sametime server.
	Bind to hostname	Enabled **Note:** This is required if you are running multiple Domino partitioned servers (including iNotes and Sametime) in the same logical partition of the iSeries server.
Note: Fields with (*) are automatically set after you add Sametime server to a Domino server		

3. Click **Save and Close**.
4. If you changed anything in the previous step, you must restart the Domino server before the changes become effective.

Verifying the Sametime installation

Perform the following steps to verify the installation of your Sametime server:

1. Start your Web browser and go to your Sametime server URL, for example:

   `http://sametime.itso.ibm.com`

   You should see a screen similar to the example in Figure 4-45.

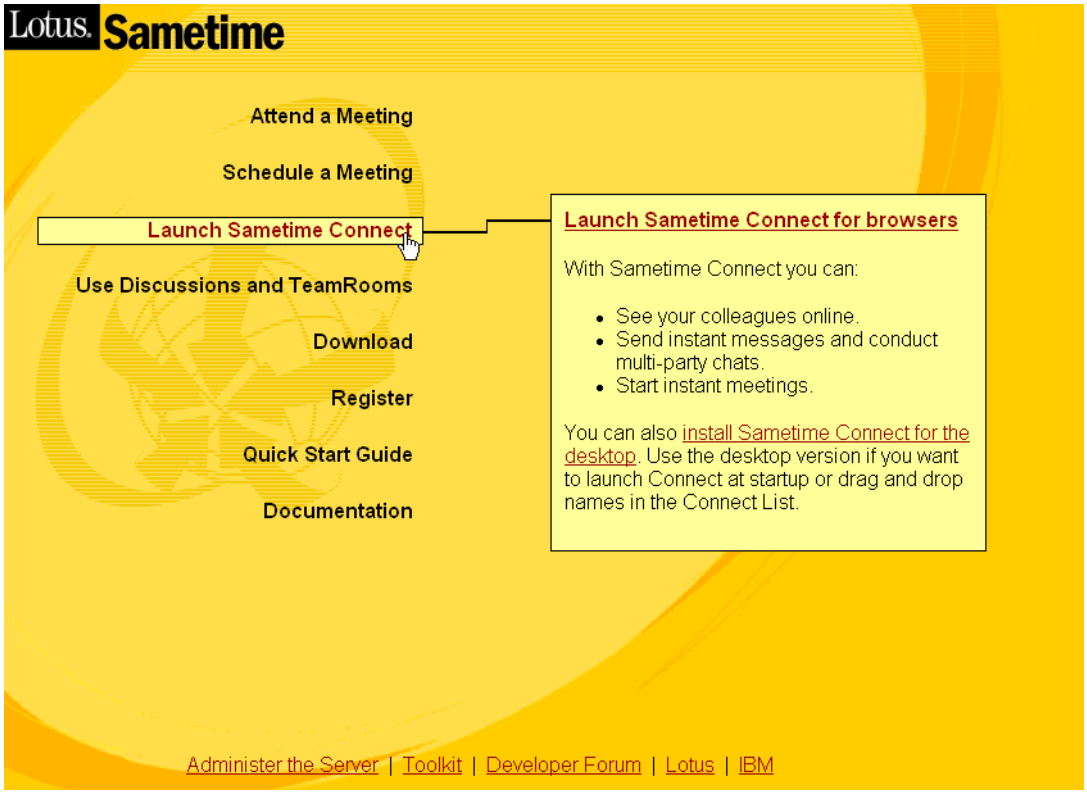


Figure 4-45 Sametime server home page

2. Click **Launch Sametime Connect**. Log on with an existing Domino user and specify their Internet password. You should then see a panel similar to the example in Figure 4-46.

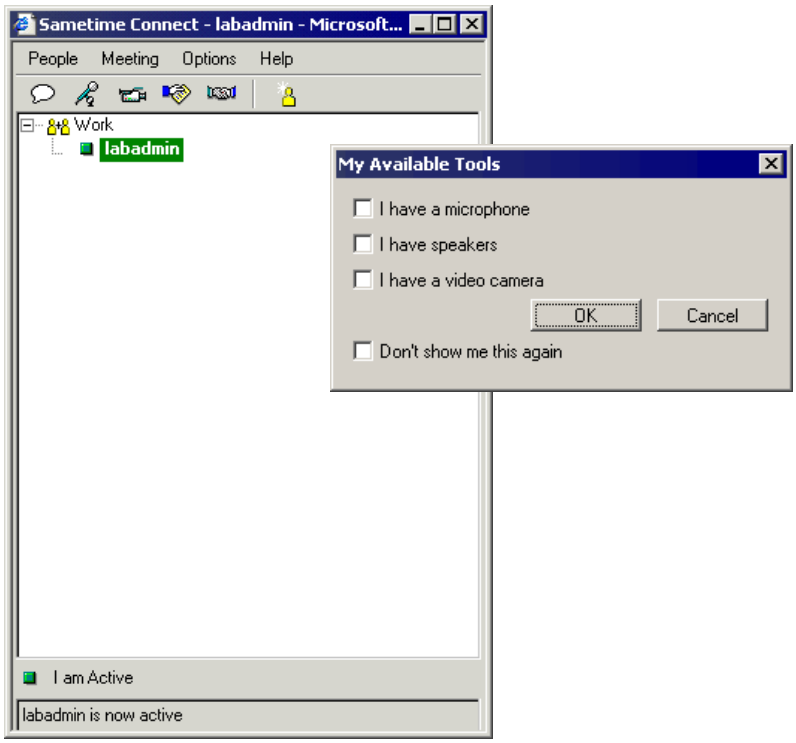


Figure 4-46 Testing the Sametime Connect Web client

The client you are using right now is called the Sametime Connect Web client. You can use chat as well as multimedia services, whiteboard meeting, or application sharing with the Sametime Connect Windows client or Sametime Connect Web client.

4.6.4 Configuring Sametime and iNotes Web Access servers

Perform the following steps to configure the Domino iNotes Web Access and Domino Sametime servers in preparation for iNotes Web Access integration with Sametime:

1. Start Operations Navigator and sign on with your iSeries user ID and password.
2. Browse for your iSeries server under **My Connections**. Go to **File systems-> Integrated File system-> Root** and browse for the directory:

   `<Domino data directory>/domino/html/SametimeApplet`

   See Figure 4-47. The following files should be in this directory:

   – Commres.cab
   – CommRes.jar
   – PeopleOnline20.cab
   – PeopleOnline20.jar
   – STComm20.cab
   – STComm20.jar

   These files are the applets used by iNotes Web Access when you click the Chat icon on the Welcome page.

   Note: Notice there are SametimeApplet and SametimeApplets directories. On the iSeries platform, these directory names are not case-sensitive.

   Since we are deploying iNotes Web Access and Sametime on the same iSeries server and sharing the same Domino server code, these files should already exist. (These files come with Domino R5.0.8 or later.) If the files do not exist, you need to copy them from the Domino iNotes Web Access server and change the files' owner to the QNOTES user profile.

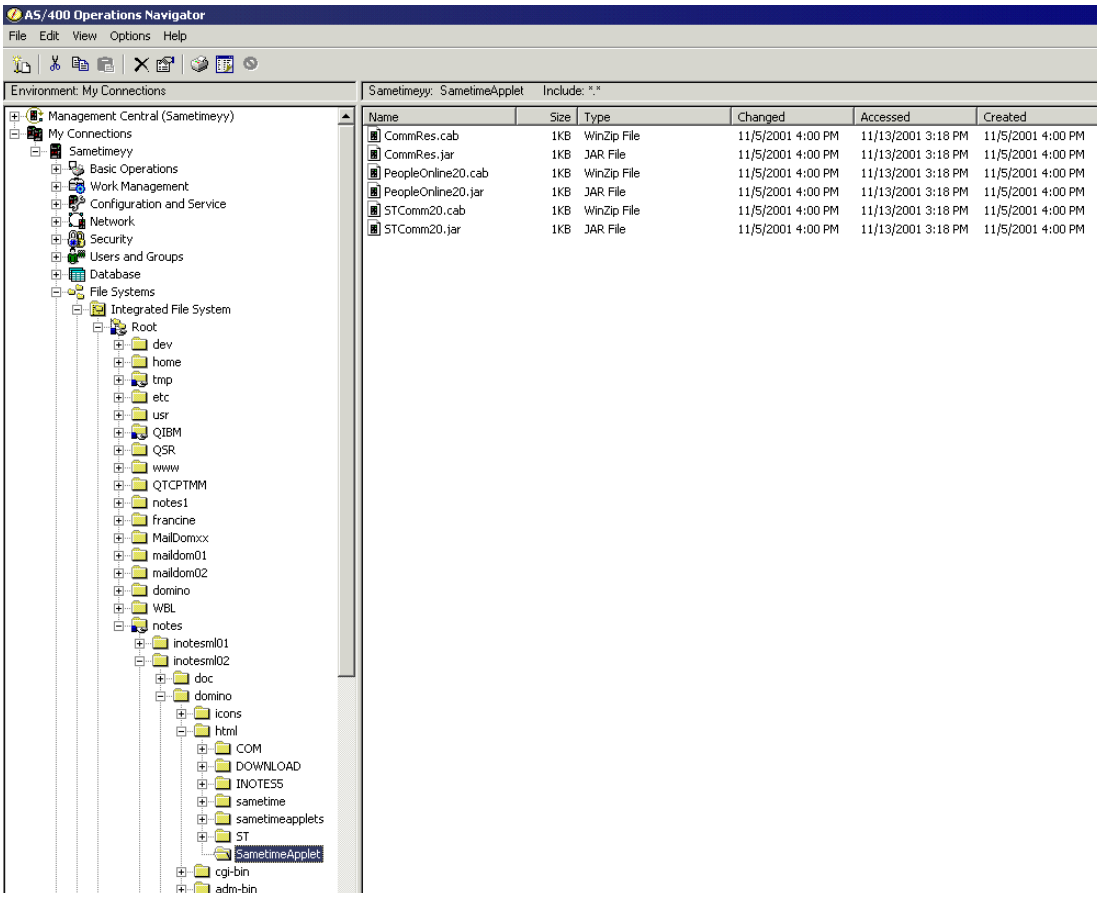


Figure 4-47 Check for SametimeApplet directory

3. Start the Domino Administrator client and open the Domino Directory (names.nsf) database of your Domino iNotes Web Access server.
4. Under the **Server -> Servers** folder, highlight your Domino iNotes Web Access server and click the **Edit Server** button.
5. Under the **Security** tab, add your Domino Administrator name in the Create Replica databases field (Figure 4-48). For example, add `Notes Administrator/iNotes`. Then click **Save and Close**. By default, no one can create a new replica on the Domino server.

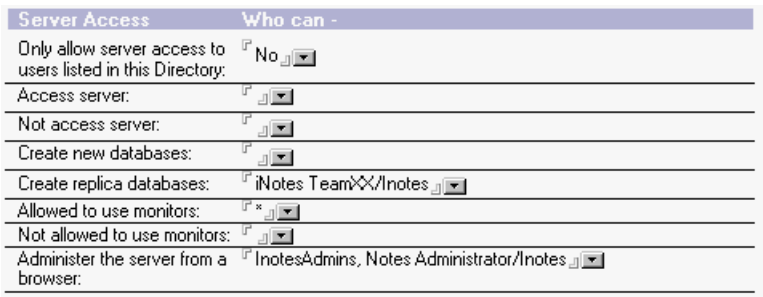


Figure 4-48 Security tab in the Domino server document: Create replica databases field

6. From the Domino Administrator client, select your Domino Domain on the bookmark at the left-most side on your window. Then select **All Servers-> Your Domino Sametime server**. Click the **Administration** window and go to the **Files** tab of your Sametime server.

7. In addition to Domino password security features, the Sametime server implements a security policy to ensure that Sametime clients that establish a connection are authenticated. The security policy uses a Token database (stautht.nsf) and Secrets database (stauths.nsf). Chatting in iNotes Web Access uses “Login by token”, which prevents users from logging in again after entering Domino iNotes Web Access server. If you are deploying a Sametime server on a different Domino server than Domino iNotes Web Access server, these databases need to be replicated to the Domino iNotes Web Access server.

   Locate and highlight the databases named **Sametime AuthT Template** (filename **stautht.nsf**) and **Sametime AuthS Template** (filename **stauths.nsf**). Then right-click and select **New-> Replica(s)** as shown in Figure 4-49.

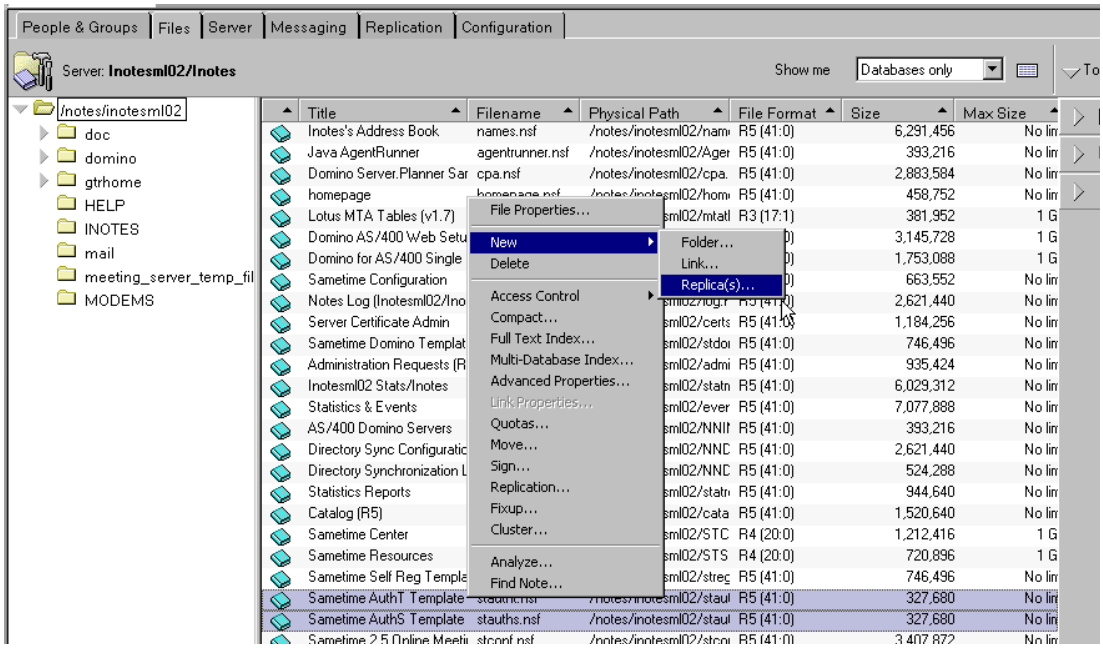


Figure 4-49 Creating new replicas for stautht.nsf and stauths.nsf databases

> **Note:** These databases may not appear when you browse to open the databases. In such case, you have to explicitly type in the filenames.

8. Select your Domino iNotes Web Access server for the target server where the new replica databases will be created and click **OK**.
9. A pop-up window appears that shows that the new replicas are created. Click **OK** to close.
10. You have to create a Connection document that replicates the Domino Directory, Sametime AuthS, and Sametime AuthT databases so that iNotes Web Access users are also authenticated to Sametime. Go back to the Domino Directory of your Domino iNotes Web Access server. Under the **Server ->Connections** folder, click the **Add Connection** button to create a Connection document to replicate the Domino Directory between your Domino iNotes Web Access server and the Domino Sametime server (Figure 4-50). Enter the parameters shown in Table 4-2.

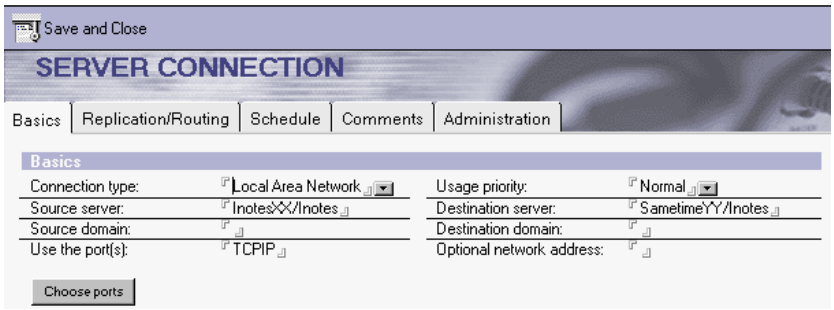


Figure 4-50 Server Connection document

Table 4-2 Server Connection document parameters

Tab	Field	Value
Basics	Connection type	Local Area Network
	Source server	Your iNotes Web Access server
	Destination server	Your Sametime server
	Use the ports	TCPIP
Replication/Routing	Replication task	Enabled
	Replication type	Pull Push
	Files/Directories to replicate	names.nsf, stauths.nsf, stautht.nsf
	Routing task	-None-
Schedule	Schedule	ENABLED
	Connection at times	12:00 AM - 11:59 PM
	Repeat interval of	Specify a interval such as 15 minutes
Note: Leave all other fields at their default values.		

11. Click **Save and Close** to close the window

Adding the Sametime server to the Person document

You completed setting up the Domino iNotes Web Access server to connect with the Domino Sametime server. Now you have to configure the users to specify which Sametime server to use. You can set up multiple Sametime servers in a domain to support more workload or to separate groups of users.

To specify which Sametime server each user is going to use, specify the Sametime server field in that user's Person document. Perform the following steps:

1. In the Domino Directory of Domino iNotes Web Access server, click the **People & Groups** tab, and in the left pane, select **People** view.
2. On the right pane, edit a Person document by highlighting a user. Click **Edit Person**.
3. Go to the **Administration** tab, and enter your Domino Sametime server name, such as `Sametime/iNotes`, in the Sametime Server field.

Important: Make sure you enter the hierarchical name of the Sametime server in this field with the canonical format such as `CN=Domino Sametime/OU=OrgUnit/O=iNotes` or `Domino Sametime/OrgUnit/iNotes`.

4. Click **Save and close** to exit.

4.6.5 Exploring iNotes Web Access with Sametime integration

Perform the following steps to verify the Sametime integration and explore Sametime with iNotes Web Access integration features.

Exploring the new option in the menu bar

Before you installed Sametime, the menu options available in your iNotes Web Access client (located on the upper-right corner of the page) are shown in Figure 4-51.

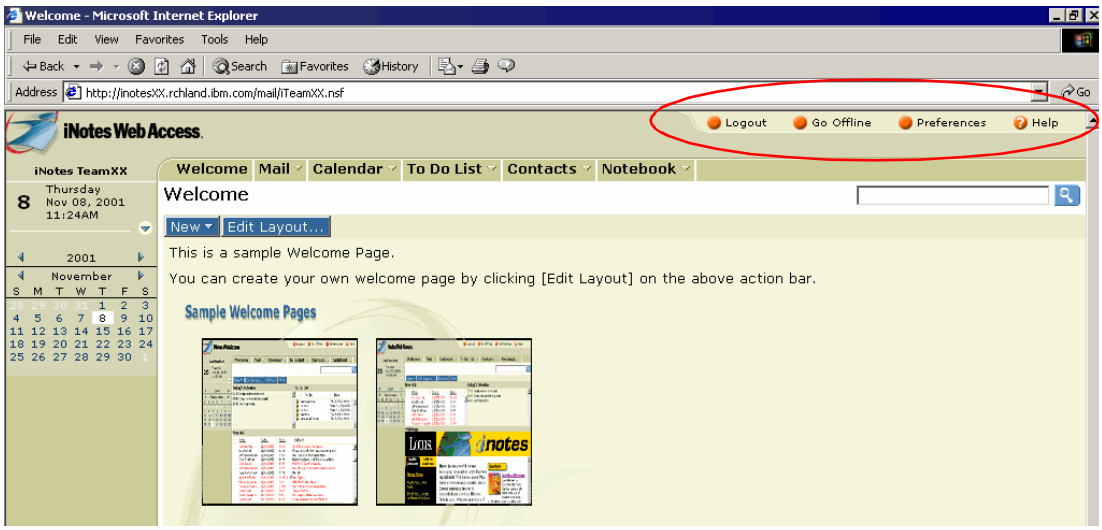


Figure 4-51 Options available in the Welcome page by default of iNotes Web Access

Once you set up Sametime, perform the following steps to see the Chat option in the iNotes Web Access menu options of the Welcome page:

1. Open your Web browser and log on to your iNotes Web Access mail database, for example:

   `http://inotes.itso.ibm.com/mail/HPotter.nsf`

   Then logon and check whether the Chat option is now available in the menu bar on the upper-right corner of the screen.

2. After you set up and integrate the Sametime server with iNotes Web Access, a new menu option appears in the default Welcome page or Portal user interface of iNotes Web Access appears as shown in Figure 4-52 and Figure 4-53 respectively.

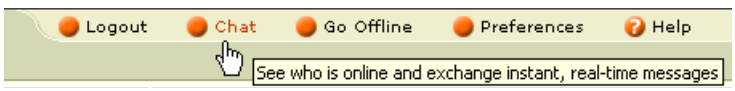


Figure 4-52 New Chat option available in menu bar of Welcome page

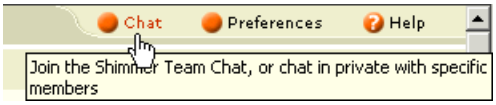


Figure 4-53 New Chat option available in menu bar in Portal user interface

Note: This Chat icon appears after you replicate the stauths.nsf and stautht.nsf files from the Domino Sametime server to your Domino iNotes Web Access server.

Creating a buddy list and group

Perform the following steps to create a buddy list and group:

1. From your iNotes Web Access client, click the **Chat** button, and a Sametime Chat applet window appears (Figure 4-54). This client is different from the Sametime Connect Web client that you used to test in the previous section. The Sametime service available here is Chat only.

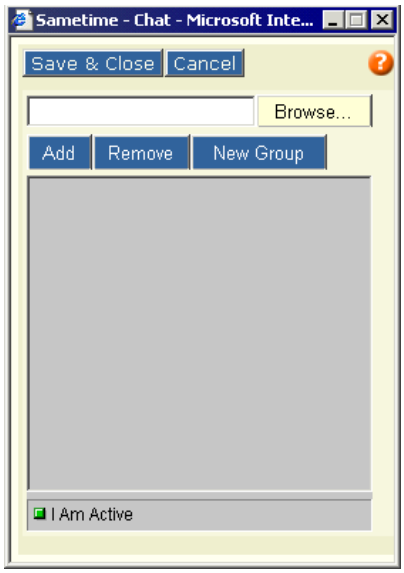


Figure 4-54 Sametime awareness in iNotes Web Access

2. Add or find a person to contact by clicking **Browse** and then search the Domino Directory for a user. Click **Add User** and click **Exit** to return to the previous Sametime window.
3. You can also group the buddy list by clicking the **New Group** button. The groups and the list of persons you are creating is not relevant to Group and Person documents in the Domino Directory. They are kept exclusively from each user and cannot be seen by other users.

   You can chat with other iNotes Web Access users or with other Sametime Connect clients.

   Note: The buddy list and group for each user are kept by each Sametime user in a binary format in the database file, vpuserinfo.nsf, on Sametime Domino server.

4. Figure 4-55 shows a comparison of the Sametime iNotes client and the Sametime Connect Web client. In front of each buddy name, there is a tiny icon representing the online status of that user. There are four different states of a user:

– Active: Green square button
– Away from the computer: Red round button
– Do not disturb: A transparent circle with diagonal line
– Offline: No icon displayed

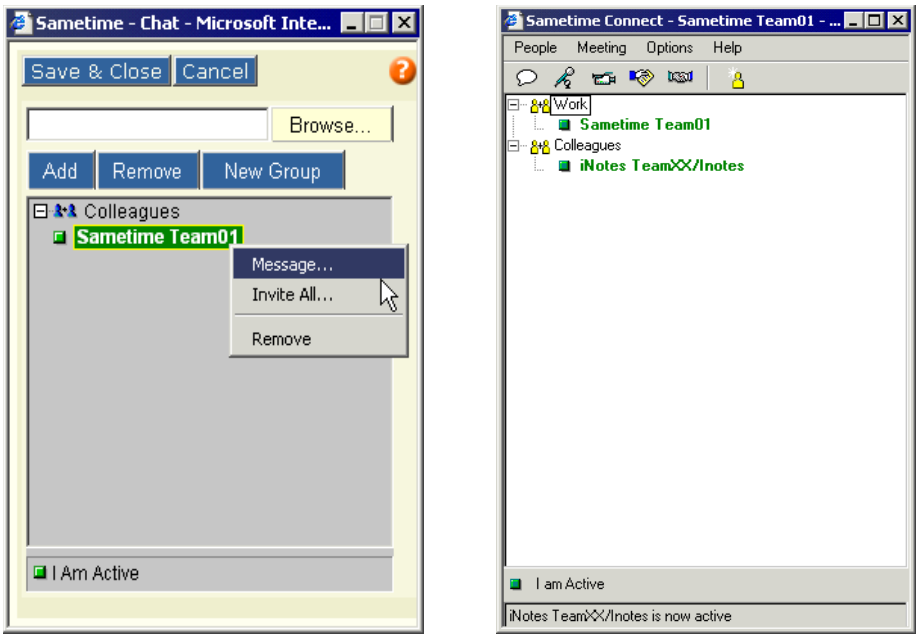


Figure 4-55 Sametime iNotes client and Sametime Connect Web client

5. In the Sametime Chat window, double-click someone in your buddy list or right-click and select **Message** to request to chat.
6. Try to send and receive messages between you and your buddy.

   In the Sametime iNotes Web Access applet client, the client connects to the Sametime server using TCP/IP port 80 (HTTP) or port 443 (HTTPS) to download the Java applets. After that, by default, the client uses port 1533 to connect to the server. Sametime has its own encryption so the session is secured even though you do not use SSL on the Sametime server (Figure 4-56).

   For network security or firewall planning on Sametime, see *Lotus Sametime 2.0 Deployment Guide*, SG24-6206.

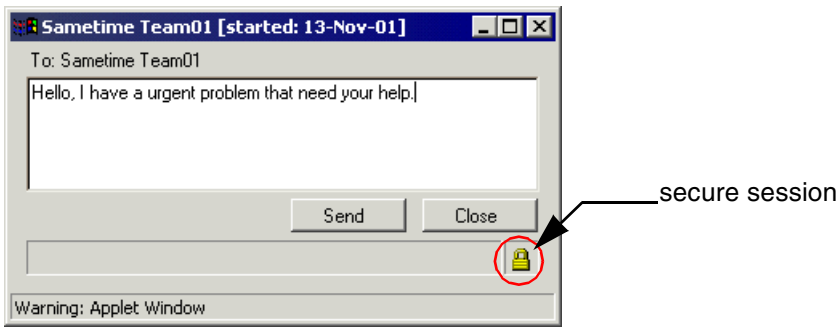


Figure 4-56 Sametime Chat window

7. You can change your online status by clicking the area **I Am Active** at the bottom the Sametime iNotes chat window (Figure 4-57). Try to change the status to **I Am Away** and **Do Not Disturb Me**. Notice that the status changes on your buddy's Sametime client.

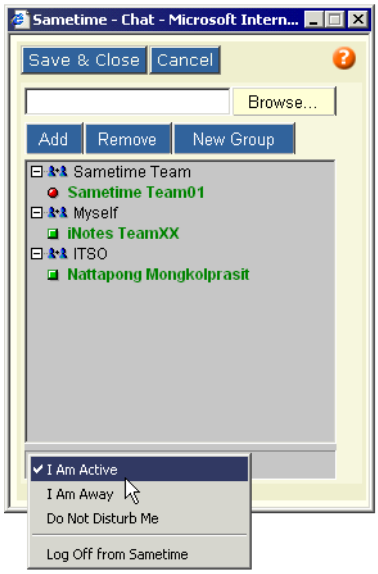


Figure 4-57 Changing your Sametime status

8. Click the **Close** button to end the conversation

4.6.6 Limitations

Sametime server version 2.5 supports the following services:

- Domino/Web application services
- Community Services or all presence (Chat)
- Meeting services
- Broadcast Services
- Audio/Video Services

However, the current release of the Sametime iNotes Web Access client supports only Community Services (Chat). You can communicate with other persons using Sametime iNotes Web Access clients as well as other Sametime Connect Windows or Web browser clients. However, you cannot participate in other services requested by other types of Sametime clients.

5

Troubleshooting

This chapter contains some frequently found problems in deploying iNotes Web Access on the iSeries server and some possible solutions. Actually most of the problems are not specific to iSeries platform and are known limitations in the current releases of iNotes Web Access (with Domino R5.0.8 or R5.0.9). We also compiled some problem determination and troubleshooting from other whitepapers, Redbooks, and sources from the Internet and included them here.

This chapter covers the following topics:

- Sources for additional information
- Common problems
- OS/400 HTTP server tips

5.1 Sources for additional information

iNotes Web Access is rich in functionality and is continually updated with new enhancements in each new release of Domino. There are sources of additional information available that list supported and unsupported features. We recommend that you check for information from the following sources:

- **Current Release notes: Domino/Notes**

  Located in the HELP/readme.nsf of the Domino server and Lotus Notes client. The database contains supported and unsupported features, new enhancements, and limitations in that particular release.

- **Domino Off-Line Services**

  Located in HELP/dols_help.nsf of the Domino server and Lotus Notes client. Describes how to set up and configure offline services including Lotus iNotes Sync Manager for offline usage.

- **Notes.net Web site**: `http://www.notes.net/r5fixlist.nsf`

  On the Notes.net Web site, there is a fix-list database that contains all implemented, planned, and upcoming fixes.

- **Lotus Support Services from IBM:** `http://www-3.ibm.com/software/lotus/support/`

  This site is supported by IBM Software Support and was previously known as the Lotus Knowledge Base. It contains the latest information on bugs and problems with iNotes Web Access.

5.2 Common problems

Some of the common problems that you may encounter with iNotes Web Access are listed in Table 5-1.

Table 5-1 Common problems with iNotes Web Access

Problem/error message	Problem determination
Problems related to accessing the Domino HTTP server.	► Check if there is any error message on the Domino server console or in the following databases: – log.nsf – domlog.nsf (HTTP logging must be enabled, see 2.8.4, “Domino server tuning” on page 63) ► Enable session tracking from the Domino server console. Issue the following commands: – **`set CONFIG DEBUG_THREADID=1`** Dumps the thread id for each session to the Domino server console. – **`set CONIFG DISABLE_IOCP=1`** Forces a session to use a single thread rather than thread pooling.
Problems using the ActiveX support.	Check with the network administrator to see if there is any restriction in the firewall.

Problem/error message	Problem determination
DOLS does not load when the Domino HTTP server starts.	Check if the name of the DSAPI filter is spelled correctly in the Domino server document. Make sure the DOLS DSAPI is listed first if you have multiple filters. By default, the CHGDOMSVR command appends it to the end of the field.
When you open the mail file from the Web browser, you still see the WebMail template.	Verify that the template is updated to iNotes5.ntf. To do this, look at the database property of the mail file, or opening the database catalog.
When you set the owner of the mail file (from the Preferences button), you see the “Server not responding” error message.	Check the network address in the Domino server document, under the Ports - Notes Network Ports tab.
When you set up DOLS, you see an error message indicating the Web browser is unable to request the offline configuration data.	The Offline Subscription Configuration profile document is missing or you may have a connection error. Open your local LOG.NSF to see the corresponding server error message. Check in the dolsadmin.nsf database for any typo in any fields. For example, “names.nsf” may be spelled incorrectly. **Note:** To open your local LOG.NSF, use your Web browser and type: `http://127.0.0.1:89/LOG.NSF`
Error message: This application is not configured properly to go offline.	An error occurred during download. Open your local LOG.NSF to see the corresponding server error message.
Error message: Unable to download fileset component information for this application.	This is an HTTP request error and involves an access restriction. Open your local LOG.NSF to see the corresponding server error message.
When a user is trying to install offline, the HTTP error 404 appears.	Verify that the Offline Subscription Configuration profile document is available.
When the user is installing a DOLS subscription, after the Lotus iNotes Sync Manager starts, a Web browser opens pointing to the local mail database with the HTTP error 404 message. At this point, the Lotus iNotes Sync Manager stops.	DOLS does not support Multi-server authentication. Verify if Multi-server is specified in the Session authentication field of the Domino server document. If yes, change it to Single server. *This may affect the other applications*.
From the Lotus iNotes Sync Manager, the user clicks the Open Offline icon and sees the HTTP 500 Internal server error message on the Web browser.	Find out if the local mail database is encrypted AND the user changed the Internet password. Make sure that the Synchronization password is the same as the Notes password (the password that comes with ID file). The Internet password can be different from the Synchronization/Notes password.
From the Lotus iNotes Sync Manager, the user is unable to synchronize mail.	If clients are outside the firewall, the IP address cannot be resolved. If you partitioned multiple Domino servers and specified a TCPIP_TCPIPAddress, this is used for DOLS in the Optional Network Address of Dolnames.nsf. Add a new notes.ini setting called $DOLS_TCPIPAddress=<hostname>:<port>

Problem/error message	Problem determination
The user changed their Internet password, which caused an Error 500 when accessing offline.	You will not be able to open your offline mail if you selected to encrypt offline mail and your password has changed. This is because your Notes and Internet passwords must be the same when the offline mail file is encrypted locally. A Notes password is required to access the Notes ID to decrypt the mail file. However, only the Internet password is available in the (offline) HTTP server. Make sure that you turn off encryption on your local mail file if you plan to change your Internet password. See Release Notes for 5.0.9 for more information.
When the user is trying to start Sametime by clicking the Chat button from iNotes Web Access, they see the error message “Unable to verify logon. Please try again later.”	Check the Sametime.log file on your Domino Sametime server. Verify if there is an indication that one or more of the Sametime tasks are not running. If so, stop the Sametime tasks by issuing the **`tell staddin2 quit`** command on the command line. When Sametime is completely shutdown, start it again using the **`load staddin2`** command.

5.3 OS/400 HTTP server tips

Table 5-2 shows problems you may experience when you use the OS/400 HTTP server to serve iNotes Web Access instead of the Domino HTTP server.

Table 5-2 Common troubleshooting tips with OS/400 HTTP server

Problem/error message	Problem Determination
There are problems related to the Admin Server not being able to configure a server instance, or not starting or not running once it is started.	The Admin server uses the Java Toolbox that must connect to a host server. The toolbox uses the localhost (*LOOPBACK) address to contact a local host server. Make sure this is started on your system. There is a log file for the Admin server: /QIBM/UserData/HTTPA/Admin/logs/HTTPAdmin.log that can give you some hints about what is failing.
The OS/400 HTTP server instance starts, runs for a few seconds, and then ends.	Use the OS/400 *very verbose* trace on your HTTP server. Specify *-vv* on the “Instance startup values” on the STRTCPSVR command. Check the spooled file for user QTMHHTP associated with your HTTP server job.
If the Domino server ended with the *IMMED option or via a crash and the OS/400 HTTP server was not ended, you see the following errors in the console: “This database is currently being used by someone else. In order to share a Notes database, all users must use a Domino server instead of a File server.”	You must completely end the associated OS/400 HTTP server before you restart the Domino server. Once this is done, start the Domino server and then the associated OS/400 HTTP server.

A

iNotes Web Access features comparison

This appendix contains a feature comparison among the different clients for Lotus Domino R5 server including WebMail, iNotes Web Access, and the Lotus Notes client. It also compares the features between Lotus iNotes Web Access and Microsoft Outlook Web Access.

A.1 WebMail, iNotes Web Access, and the Lotus Notes client

The tables in the following sections are based on Domino R5.0.9. For newer releases of Domino or more update to date information, go to the Web site at:
http://www.notes.net/inoteswebaccesswelcome.nsf

Then click the **Feature comparison information** link. Or go directly to:
http://notes.net/inoteswebaccesswelcome.nsf/9ef083dbcc1d1c5c8525695b0050c564/c90f95eaeee7d5738525697e00605a76?OpenDocument

The product feature areas that are compared are:

- Mail
- To Do list
- Calendar and scheduling
- Personal contacts
- Attachments
- Miscellaneous/other features

A.1.1 Mail

Table A-1 compares the mail features between the WebMail, iNotes Web Access, and Lotus Notes clients.

Table A-1 Mail features comparison

Feature	WebMail	iNotes Web Access	Lotus Notes
Views and folders			
In-box view	Yes	Yes	Yes
Drafts view	Yes	Yes	Yes
All documents view	Yes	Yes	Yes
Discussion thread view	Yes	No	Yes
Folders	Yes	Yes	Yes
Nested folders	Yes	Yes	Yes
Create/delete folders	Yes	Yes	Yes
Drag & drop messages into folders	No	No	Yes
Copy & move to folder	Yes	Yes	Yes
From the action bar, open mail into specific view (for example, Inbox, Sent, Drafts, etc.)	No	Yes	No
Message creation and addressing			
Create new memo	Yes	Yes	Yes
Type-ahead addressing	No	No, but there is similar name look up and automatic name resolution in R5.0.9.	Yes

Feature	WebMail	iNotes Web Access	Lotus Notes
Support file attachments	Yes (limit to 2)	Yes	Yes
View file attachments from within messages	No	No	Yes
Spell-checking	No	Yes	Yes
Alternate name support when sending mail	No	Yes, new feature in R5.0.9	Yes
Sametime integration	No	Yes	Yes
Perform Name & Address book lookup	Yes	Yes	Yes
Display contacts sorted by Organization Unit	Yes	Yes	Yes
Perform integrated address book lookup when sending a message	No	No	Yes
Personal Contacts Address Book	Yes	Yes, in R5.0.9, creating and managing a personal group is also supported.	Yes
Delivery options (Importance, Delivery priority, Delivery report)	Yes	Yes	Yes
Forward message	Yes	Yes	Yes
Save message draft	Yes	Yes	Yes
Create a serial route memo	No	No	Yes
Forward Web pages and documents from any Notes application	No	No	Yes
Forward document as bookmark link message	No	No	Yes
“Copy Into” - convert item to Task, Calendar Entry or New memo	Yes	No	Yes
Return receipt	Yes	Yes	Yes
Prevent copying	No	No	Yes
Apply mood stamps to messages	No	No	Yes
Create/use stationery	No	No	Yes

Feature	WebMail	iNotes Web Access	Lotus Notes
Choose a letterhead	No	No	Yes
Create a message containing a signature file	Yes	Yes	Yes
Type-ahead within “Move to Folder” dialog	No	No	Yes
Specify outbound message with a “reply by” date	No	No	Yes
Internet message format	Yes	Yes	Yes
Viewing and responding to message items			
Support for read/unread marks	No	Yes	Yes
Navigate to next document without returning to view	Yes	No	Yes
Perform mail file delegation	Yes	Yes	Yes
Reply with history	Yes	Yes	Yes
Reply to memo	Yes	Yes	Yes
Reply to all	Yes	Yes	Yes
Detach attachments	Yes	Yes	Yes
View rich text within a message	Yes	Yes	Yes
Support for doc links, view links and database	Yes, on the same server only.	Yes, on the same server only.	Yes
View tables within messages	Yes	Yes	Yes
Create tables within messages	No	No	Yes
Resend documents from within a delivery failure	Yes	Yes	Yes
View sections	Yes	Yes	Yes
Action bar	Yes	Yes	Yes
Add sender of message to Personal Contacts list	Yes	Yes	Yes
Modify/view of the file’s ACL from client	No	No	Yes

Feature	WebMail	iNotes Web Access	Lotus Notes
Display of importance/type icons in views	Yes	Yes	Yes
Read encrypted mail and verify signature of signed mail	No	No	Yes
Preference setting for new mail on top/bottom	No	Yes	No, but you can easily customize the view to have this sorting feature.
Automatically checking for new messages	No	Yes	Yes
Advanced editing features in rich text field			
Left, right and center, indent, outdent text justification	Yes	Yes	Yes
Tables	No	No	Yes
Sections	No	No	Yes
Support for embedded OLE objects	No	No	Yes
Java Applet support	No	No	Yes
Page break	No	No	Yes
Horizontal line	No	No	Yes
Hotspots	No	No	Yes
Insert image resources	No	Yes	Yes
Create sections	No	No	Yes
Ability to switch language dictionaries for spell-checking	No	Yes	No
Support for both bullets and number lists	Yes	Yes	Yes
Undo	No	No	Yes
User preferences			
New mail notification	No	Yes	Yes
Default mail send/save setting	No	Yes	Yes
Ability to archive mail and calendar documents	No	Yes	Yes
Lookup across multiple address books	Yes	Yes	Yes

Feature	WebMail	iNotes Web Access	Lotus Notes
Automatically create a reply message by clicking the From field	No	Yes	No
Security			
Send signed or encrypted mail	No	No	Yes
Field, form, view, document, section level security	No	No	Yes
User roles	No	No	Yes
Local encryption of mail database	No	Yes, in 5.0.9; allowing users to encrypt offline mail with simple, medium, and strong encryption	Yes
Other features			
Control of database properties/design (refresh, replace, etc)	No	No	Yes
Support for alternate editors for mail messages	No	No	Yes
Built-in news reader, POP mail, IMAP mail	No	No	Yes
Support for Domino database subscriptions	No	No	Yes
Extended (within databases, attachments, messages, etc.) control of search - refinement of search with form, etc.	No	No	Yes
Drag and drop documents between frames	No	No	Yes
User can change their own password from a client	No	Yes	Yes

A.1.2 To Do

Table A-2 compares the To Do features between the WebMail, iNotes Web Access, and Lotus Notes clients.

Table A-2 To Do features comparison

Feature	WebMail	iNotes Web Access	Lotus Notes
Option to have To Dos follow day-to-day in calendar view	No	Yes	Yes
Display To Do in calendar view	Yes	Yes	Yes
Delegate a To Do to another person	Yes	No	Yes
Create To Dos (with start and end dates)	Yes	Yes	Yes
Categorize new To Do entries	Yes	Yes	Yes
Alarm notification on To Dos	No	Yes	Yes
Mark To Dos complete or uncompleted	Yes	Yes	Yes
Create To Dos	Yes	No	Yes
Ability to setup time on To Dos	No	No	Yes
Display To Dos in Gantt chart format	No	Yes	No
Priorities for To Dos (high, medium and low)	Yes	Yes	Yes
Create personal To Dos	Yes	Yes	Yes
Owner and participant actions	Yes	No	Yes

A.1.3 Calendaring and scheduling

Table A-3 compares the calendaring and scheduling features between the WebMail, iNotes Web Access, and Lotus Notes clients.

Table A-3 Calendaring and scheduling features comparison

Feature	WebMail	iNotes Web Access	Lotus Notes
From the action bar, open Calendar into a specific view (for example, 1-day, 1 week, 1-month, etc.)	No	Yes	No

Feature	WebMail	iNotes Web Access	Lotus Notes
Calendar Views	1 day 2 day 1 week 2 week 1 month 1 year	1 day 2 day 5 day 1 week 2 week 1 month 1 year	1 day 2 day 5 day 1 week 2 week 1 month
Meeting view	Yes	No	Yes
Calendar print preview	No	Yes	No
Work/non-work hour differentiation	No	Yes	No
Ability for chairperson to see status of invitees from the view label	No	No	Yes
Calendar entries and group scheduling			
Double-click within the calendar view to create an entry	No	Yes	Yes
Create appointment	Yes	Yes	Yes
Create all day event	Yes	Yes	Yes
Create reminder	Yes	Yes	Yes
Create anniversary	Yes	Yes	Yes
Create meeting invitation	Yes	Yes	Yes
Create rich text in detailed description field	No	Yes	Yes
Automatic date (calendar picture) and time selector controls	No	Yes	Yes
Centrally managed rooms and resources	Yes	Yes	Yes
Create repeating entries	Yes	Yes	Yes
Add alarms to entries	No	Yes	Yes
Attach a file to invitation forms	No	Yes	Yes
Pencil in a meeting/tentatively schedule	Yes	No	Yes
Mark an entry private, “Not for public viewing”	Yes	Yes	Yes

Feature	WebMail	iNotes Web Access	Lotus Notes
Delivery options on calendar entries	Yes	No	Yes
Address lookup for inviting people	Yes	Yes	Yes
Check free time availability for invitees	Yes	Yes	Yes
Free time search in counter-proposal	No	No	Yes
Respond with comments within a counter-proposal	No	No	Yes
Edit calendar entries	Yes	Yes	Yes
Send a reschedule notice	Yes	Yes	Yes
Add additional invitees after invitation is sent	Yes	Yes	Yes
Send “broadcast” invitation (no RSVP/response)	Yes	Yes	Yes
Send meeting confirmation	Yes	Yes	Yes
Accept invitation	Yes	Yes	Yes
Decline invitation	Yes	Yes	Yes
Counter propose an alternative time	Yes	Yes	Yes
Accept/decline with comments	No	Yes	Yes
Delegate an invitation	Yes	No	Yes
Check calendar from invitation page	No	Yes	Yes
Create and maintain group calendar	No	Yes	Yes
Create meeting invitation from group calendar view populating group members in invitation	No	Yes	No
Accept counter proposal	Yes	Yes	Yes

Feature	WebMail	iNotes Web Access	Lotus Notes
Users in different time zones can share the same server and still see meeting times with respect to their own zone	No	Yes	Yes
User preferences			
Set global default appointment duration	Yes	Yes	Yes
Set global default calendar entry type	No	Yes	Yes
Option to make free time available to only certain users	Yes	Yes	Yes
Options to set allowable free time	Yes	Yes	Yes
Enable conflict checking for calendar entries	No	Yes	Yes
Allow another user to manage calendar without allowing access to e-mail	Yes	Yes	Yes
Mark default calendar entry as “Not for public viewing”	No	Yes	Yes
Auto processing of calendar information			
Option to remove invitations from Inbox after processing	Yes	Yes	Yes
Ability to auto process invitations	Yes	Yes	Yes

A.1.4 Personal contacts

Table A-4 compares the personal contacts features between the WebMail, iNotes Web Access, and Lotus Notes clients.

Table A-4 Personal contacts features comparison

Feature	WebMail	iNotes Web Access	Lotus Notes
Sort contacts by last name, company, e-mail, address, etc.	Yes	Yes	Yes
Add users in Domino Directory to Personal Contacts list	Yes	No	Yes

Feature	WebMail	iNotes Web Access	Lotus Notes
Select multiple contacts and send message	No	Yes	Yes
Select multiple contacts and schedule a meeting	No	Yes	Yes
Business card summary view	No	Yes	Yes
Categorization of contacts	Yes	Yes	Yes
Automatically add e-mail sender to Personal Contacts list	Yes	No	Yes

A.1.5 Attachments

Table A-5 compares the attachments features between the WebMail, iNotes Web Access, and Lotus Notes clients.

Table A-5 Attachments features comparison

Feature	WebMail	iNotes Web Access	Lotus Notes
Unlimited attachments	No (maximum is 2)	Yes	Yes
Drag and drop attachments from desktop/file system	No	Yes	Yes

A.1.6 Miscellaneous

Table A-6 compares some miscellaneous features between the WebMail, iNotes Web Access, and Lotus Notes clients.

Table A-6 Miscellaneous features comparison

Feature	WebMail	iNotes Web Access	Lotus Notes
Browser support	Internet Explorer 4.x Internet Explorer 5.x Netscape Navigator 4.x	Internet Explorer 5.x	n/a
Advanced search (contextual by text, author, or date)	No	Yes	Yes
Journal integrated in mail file	No	Yes	No
Contacts integrated in the mail file	Yes	Yes	No
Ability to snooze alarms across multiple sessions/logins	No	Yes	No

Feature	WebMail	iNotes Web Access	Lotus Notes
Context-sensitive help	No	Yes	Yes
Offline support for Messaging, PIM, and Collaborative Applications	Mail only	Messaging, PIM	Yes
Welcome page support	No	Yes	Yes
Mail view filter for unread messages	No	Yes	No
Mail view filter for high priority messages	No	Yes	No
Mail view filter for last 10 messages	No	Yes	No

A.2 iNotes Web Access and Microsoft Outlook Web Access

The tables in this section show product feature comparisons between Lotus iNotes Web Access and Microsoft Outlook Web Access. Lotus iNotes Web Access is based on Domino server R5.0.9, while Microsoft Outlook Web Access is based on Microsoft Exchange 2000.

A.2.1 Overview

Table A-7 compares an overview of the features between the Lotus iNotes Web Access and Microsoft Outlook Web Access clients.

Table A-7 Overview of features comparison between iNotes Web Access and Outlook Web Access

At a glance	iNotes Web Access	Outlook Web Access
Deployment	Requires a Lotus Domino R5 server and will run on a range of operating systems and hardware platforms. Very few dependencies.	Requires Windows 2000, Active Directory and IIS 5.0, and Exchange 2000. Frontend and Backend servers are required for incremental scalability.
Offline access	Yes Users can take mail offline for disconnected use or where bandwidth is limited.	No Microsoft indicated at the Exchange 2000 Conference in Dallas that there are no plans to make the Outlook Web Access client available to offline users. Offline Access is provided through Microsoft's thick client architecture - Office and Outlook.
Mail	Yes	Yes
Calendar	Yes	Yes
Group scheduling	Yes	No

At a glance	iNotes Web Access	Outlook Web Access
To Dos	Yes	No, does not provide a To Dos facility. This is confusing to users of Microsoft Outlook where To Dos are supported.
Contacts	Yes	Yes
Printing	Yes Printing of content provided through Web client print functions. Printing of calendar is available in the following styles: Daily Weekly Monthly Calendar List Todo List Trifold	Yes
Spell-checking	Yes	No
Ease of use	Provides high functionality. User interface is consistent. Consistent experience for users familiar with full-functioned mail clients	Misses important features such as integrated tasking, address lookup lists, resource lookup lists, attachment insertion complicated and slow, no spell checker, and no Welcome page. Inconsistent operation for users of full-functioned mail clients
Performance	Good in LAN, WAN, dial-up, and disconnected states. Offline capability ensures high performance in low bandwidth environments.	Good, if connected in a LAN environment. Performance is very poor over dial-up connections.
Overall functionality	High, offers similar functionality found in Lotus Notes R5 messaging client today. First to market from any vendor with robust mail and PIM features with the inclusion of offline access.	Low, has a similar look and feel to Microsoft Outlook in some areas, with only a small percentage of the features. Microsoft recommend Outlook Web Access as an augmented solution to existing Outlook users.
Support unread marks	Yes	Yes

A.2.2 General client

Table A-8 compares the general client features between the Lotus iNotes Web Access and Microsoft Outlook Web Access clients.

Table A-8 General client features comparison

Client - General	iNotes Web Access	Outlook Web Access
Client specification	Internet Explorer 5.01 on Win32 clients. **Note:** Plan to provide support more clients in Rnext.	Internet Explorer 4.0*, 5.0 Netscape Navigator 4.0* **Note:** IE4 and Netscape are supported with limited features.
Kiosk	Yes	Yes
ISP/ASP	Yes	Yes
Home	Yes	No
Offline	Yes Offline support is a simple 3 step process initiated by user. Other Web-based applications can also be used offline.	No Offline support is not provided. Users must be connected to the server at all time.
Full-text searching	Yes Full-text indexing is provided both online and offline.	No
Drag and drop attachments	Yes	No
Support for unread marks	Yes	Yes
Time zone support	Yes	Yes

A.2.3 Mail

Table A-9 compares the mail features in Lotus iNotes Web Access and Microsoft Outlook Web Access clients.

Table A-9 Mail features comparison

Mail	iNotes Web Access	Outlook Web Access
Overview		
Easy access to mail via a Welcome page	Yes	No No, Welcome page is provided.
Ability to view most recent messages on Welcome page	Yes	No
Automatically check for new messages	Yes	No
Spell checker	Yes	No
Rich text editor when creating mail messages	Yes	Yes
Folder support	Yes	Yes
Drag and drop messages into folder	No. Will be provided in subsequent release.	Yes

Mail	iNotes Web Access	Outlook Web Access
Drag and drop attachments	Yes	No
Double click to launch attachment in message	Yes	No
Language support	Yes, currently support 24 languages.	Yes, currently support 9 languages.
Views and folders		
Provide Inbox view	Yes	Yes
Provide Drafts folder	Yes	Yes
Provide All Documents view	Yes	No
Provide Discussion Thread view	Yes	No
Access to all views in the mail file (including expand and collapse)	Yes	Yes
Display folders	Yes	Yes
Create nested folders	Yes	Yes
View nested folders	Yes	Yes
Create and delete new folders	Yes	Yes
Copy and move to a specific folder	Yes	Yes
Message creation and addressing		
Create new memo	Yes	Yes
Send message	Yes	Yes
Creation of rich text	Yes	Yes
Attach unlimited number of attachments to message	Yes	Yes
Integrated real-time collaboration, “Who is Online” functionality	Yes	No
Perform Name & Address Book lookup via selection list	Yes	No No address lookup selection list is provided. Users must perform a search or type in a name.
Perform integrated Address Book lookup when sending a message	Yes	No
Personal Address Book	Yes	Yes
Delivery options (importance, delivery priority, delivery report)	Yes	Yes

Mail	iNotes Web Access	Outlook Web Access
Create tasks (with start and end dates)	Yes	No
Forward message	Yes	Yes
Save message in the Drafts folder	Yes	Yes
Create a temp export certificate	No	No
“Copy Into” - convert item to task or calendar entry	No	No
Return receipt	Yes	Yes
Create/use stationery	No	No
Choose a letterhead	No	No
Create a message containing a signature file	Yes	No
Type-ahead within “Move to Folder” dialog	No	No
Specify outbound message with a “reply by” date	No	No
Specify message expiration date	No	No
Viewing message items		
Navigate to next document without returning to view	Yes, but not in first release	No
Perform mail file delegation	Yes	No
Upload file attachments	Yes	Yes
Download attachments	Yes	Yes
Reply with history	Yes	Yes
Reply to memo	Yes	Yes
Reply to all	Yes	Yes
Assign tasks to others	Yes	No
Give a task a priority (high, medium, low)	Yes	No
Mark task as completed	Yes	No
Allows the viewing of rich text within a message	Yes	Yes
Includes support for doc links, view links and database links	Yes	n/a
Tables within messages are viewable	Yes	No

Mail	iNotes Web Access	Outlook Web Access
Ability to resend documents from within a delivery failure	Yes	No
Left, right, and center text justification	Yes	Yes
Bold, italic, underline, and color mapping of text	Yes	Yes
Support for collapsible sections	Yes	n/a
Action car	Yes	Yes
Support for both bullets and number lists	Yes	Yes
Spell-checking natively available	Yes	No
Add Sender of message to Personal Address Book	Yes	No
Display task in calendar view	Yes	No
Sort by column by clicking on a view column header	Yes	Yes
Ability to archive documents	Yes, currently on server only.	No
Display of importance/type icons in views	Yes	Yes
Inbound encrypted messages can be displayed (requires access to Public key on server)	No	No
Automatically checks for new message	Yes	No
User preferences		
Define mail file owner	Yes	No
Default mail save setting	Yes	No
Lookup across multiple Address Books	Yes	No
Sign sent mail	No	No
Encrypt sent mail	No	No
Encrypt saved mail	No	No
New mail notification	Yes	No
Out of office agents can be enabled	Yes	Yes
Other features		
User can change their own password	Yes	Yes

Mail	iNotes Web Access	Outlook Web Access
Enable/disable scheduled agents	Out of office only	Out of office only

A.2.4 Calendar and scheduling

Table A-10 compares the calendar and scheduling features between the Lotus iNotes Web Access and Microsoft Outlook Web Access clients.

Table A-10 Calendar and scheduling features comparison

Calendaring and Scheduling	iNotes Web Access	Outlook Web Access
Views		
One day view	Yes	Yes
Two day view	Yes	No
Five day view	Yes	No
Weekly view	Yes	Yes
Two week view	Yes	No
Monthly view	Yes	Yes
Yearly view	Yes	No
Calendar entries and group scheduling		
Double-click within calendar view to create entry	Yes	No
Create appointment	Yes	Yes
Create event	Yes	No
Create reminder	Yes	No
Create anniversary	Yes	No
Create meeting invitation	Yes	No
Create rich text	Yes	No
Automatic date (calendar picture) and time (drag indicator) controls	Yes	Yes
When opening existing entry, put into edit mode automatically	Yes	Yes
Invite resources or rooms	Yes	Yes. No resource lookup list is available. Users must know the name of resource before booking can be made.
Create repeating entries	Yes	Yes
Add alarms to entries	Yes	No
Attach files by drag and drop	Yes	No Individual selection of files by time consuming dialog box.

Calendaring and Scheduling	iNotes Web Access	Outlook Web Access
Pencil in a meeting - tentatively schedule	Yes	No
Mark an entry “not for public viewing”	'Yes	No
Delivery options on calendar entries	No	No
Address lookup for inviting people	Yes	Yes
Check free time availability for invitees	Yes	Yes
Free time search within a counterproposal	Yes	No
Respond with comments within a counterproposal	Yes	No
Edit calendar entries	Yes	Yes
Send a reschedule notice	Yes	Yes
Add additional invitees after invitation is sent	Yes	Yes
Remove invitee from list	Yes	Yes
Send “broadcast” invitation (no RSVP)	Yes	No
Send meeting confirmation	Yes	Yes
Display invitee responses in invitation	Yes	No
Accept invitation	Yes	Yes
Decline invitation	Yes	Yes
Propose an alternative time	Yes	No
Accept/decline with comments	Yes	Yes
Delegate an invitation	Yes	No
Categorize calendar entries	Yes	No
Check calendar from invitation page	Yes	No
Create and maintain group calendar	Yes	No
Import corporate holidays from server	No	No
Accept counter proposal RSVP	Yes	No

Calendaring and Scheduling	iNotes Web Access	Outlook Web Access
User preferences		
Set default appointment duration	Yes	No
Set default calendar entry type	Yes	No
Set default calendar grid type (two day, weekly, two week, or monthly)	No	No
Mark default calendar entry as “not for public viewing”	Yes	No
Option to remove invitations from Inbox after processing	Yes	No
Option to make free time available to only certain users	Yes	No
Options to set allowable free time	Yes	No
Ability to auto process invitations	Yes	No

A.2.5 To Do

Table A-11 compares the To Do features between the Lotus iNotes Web Access and Microsoft Outlook Web Access clients.

Table A-11 To Do features comparison

To Dos	iNotes Web Access	Outlook Web Access
		Note: Outlook Web Access does not support To Dos
Integrated tasking	Yes	No
Task chart view	Yes	No
Delegate a task to yet another person	Yes	No
Categorize new To Do entries	Yes	No
Dates and time automatically appear in To Do entry form	Yes	No
Alarm notification	Yes	No
Mark To Dos complete or uncompleted	Yes Time appears if an alarm is set.	No
Owner and participant actions	No	No

A.2.6 Address book

Table A-12 compares the address book features between the Lotus iNotes Web Access and Microsoft Outlook Web Access clients.

Table A-12 Address book features comparison

Address book	iNotes Web Access	Outlook Web Access
Can add users from Domino Directory to Personal address book	No	No
Select multiple contacts and send message	No	No
Select multiple contacts and schedule a meeting	No	No
Categorization of contacts	Yes Category field is provided on Contact form	No
Name display selection	Yes Last name, company name, e-mail address	Yes

A.2.7 Notebook

Table A-13 compares the notebook features between the Lotus iNotes Web Access and Microsoft Outlook Web Access clients.

Table A-13 Notebook feature comparison

Notebook	iNotes Web Access	Outlook Web Access
Notebook facility	Yes	Yes

A.2.8 Printing

Table A-14 compares the printing features between the Lotus iNotes Web Access and Microsoft Outlook Web Access clients.

Table A-14 Printing features comparison

Printing	iNotes Web Access	Outlook Web Access
Print preview	Yes, calendar only	No
Print multiple calendar formats: Daily Weekly Monthly Calendar List Todo List Trifold	Yes	No

B

New features, enhancements, and fixes

This appendix describes the improvements to iNotes Web Access provided in Domino Release 5.0.9. It discusses problems that were fixed from the previous release, functionality that was added, and existing features that were enhanced in the product.

This appendix covers:

- iNotes Web Access new features and enhancements
- Domino Off-Line Services new features and enhancements
- iNotes Web Access fix list
- Domino Off-Line Services fix list

B.1 iNotes Web Access new features and enhancements

This section covers the enhancements and new features specific to iNotes Web Access in Domino R5.0.9.

B.1.1 Full alternative name support

iNotes Web Access has been enhanced to fully support alternative names, just as Notes/Domino provides ability to set an alternate name for Notes users in Notes/Domino R5. This ability enables users to use alternate representation as their user names in their native language other than the ordinary Domino primary user name to display user names. Notes/Domino R5 provides the ability to turn on or turn off the alternate name display and also provides capability to display the alternate name in many places.

B.1.2 Name resolution when sending mail

This allows an iNotes Web Access user to check the names of recipients of an e-mail for accuracy before sending, with the click of a button. It prevents mail from being misdirected or not received because the recipient's name was misspelled. This provides a similar type of functionality that Notes users have with the type-ahead feature in memo addressing. Lotus has opted not to enable type-ahead addressing in iNotes Web Access because of performance considerations. However, users can now, with a single click of button, resolve incorrectly spelled names in an address field from a pop-up list of alternatives when no match is found.

B.1.3 Rollback to HTML file control if ActiveX controls are not permitted

Some companies restrict the use of ActiveX controls by users for security purposes. iNotes Web Access leverages an ActiveX control for the file upload/download control. This new feature allows for the "rollback" to a non-ActiveX control that still provides users the ability to upload or download file attachments. Although it does not provide some of the drag-and-drop capabilities that the ActiveX control does, the basic feature is now available to users who can't use ActiveX controls.

B.1.4 Support for personal group names

iNotes Web Access has added the ability for users to create and manage personal groups, similar to the personal groups in the Notes client Personal address book. These personal groups are stored in the user's mail file and can be used for all mail and calendar and features.

B.2 Domino Off-Line Services new features and enhancements

This section covers the enhancements and new features specific to Domino Off-Line Services (DOLS) in Domino R5.0.9.

B.2.1 DOLS compact and full text search configuration settings

DOLS compact and full-text search configuration setting allows administrators to turn on and turn off the database compaction and full-text search indexing process of their users from within the DOLS configuration form. The default setting remains "On" since this was the past behavior. These processes currently occur during the DOLS synchronization process.

B.2.2 DOLS local encryption support

Local encryption of databases within downloaded subscriptions to a DOLS client is now supported through new settings within the DOLS configuration document.

B.2.3 Offline Directory Catalog support

Offline Directory Catalogs can be used for DOLS-enabled applications for directory lookups, addressing, etc. The feature is available through a new settings within the DOLS configuration document.

B.2.4 Overriding the TCP/IP address in notes.ini

You can add a notes.ini setting called *$DOLS_TCPIPAddress=<hostnames>* or *<ip address>:<port>*. This overrides the TCPIPAddress setting. This value populates the Optional Network Address field in the Connection document in the Dolnames.nsf database. If the $DOLS_TCPIPAddress is not present, TCPIPAddress will be used.

B.3 iNotes Web Access fix list

Table B-1 shows the list of fixes in Domino R5.0.9 specific to iNotes Web Access.

Table B-1 iNotes Web Access fix list in Domino R5.0.9

SPR number	Fix description
FZHG4TG5YM	When forwarding a document in which an image is inserted, if the image is deleted from the body field, but it is still stored in the document as an attachment.
JCIK4YCGAG	Preferences Save & Close fails if port number in TCPIP_TCPIPAddress is anything other than 1352.
MWHN4XCW4P	Removed the option to add or remove a checkmark once a To Do is saved, from within the Set Repeat box.
JLJE4TSKRZ	A To Do entry with a Completed status is displayed as Uncompleted in the All Documents view.
KZHG4WMBZP	Fixed a problem where an invalid script in the body of a mail message causes page content confusion and iNotes warning messages
MEZO4X8HAA	Fixed a problem where extra “\n”s were intermittently visible from within the view source of a mail message
CDUT4XPRRR	Fixed a problem causing response data to be sent with a 304 (not modified) response.
BDAS4Y2SCB	Provided a fix for PDF generation for international locales that use a comma as a decimal point.
TIWI4X3KYU	Prevent corruption of repeating appointments that contain rich text fields, attachments, or doc links when they are edited by an iNotes client.
CFAR4WKRX4	Fixed a problem with meeting cancellation working incorrectly for users added to a repeating meeting invitation after the original invitation was sent. The meeting was not removed from the user's calendar even if they accepted.

SPR number	Fix description
ASUH4ZVTF4	Fixed the incorrect layout of all-day events and anniversaries occurring on the same day when printing the daily calendar when Print first line only is selected.
TIWI4YQ4KL	System administrators are allowed to prevent the end user from modifying the Welcome page.
BZHO4VTJ8L	Fixed a problem where a Web page is not printed, when the page is included in the body section of a mail message
VSEN4V8MK7	Improved the performance of both the HTTP server and iNotes Web Access by changing the method Domino uses to handle certain types of data.
AHOD52VR23	Fixed a problem that caused the server to crash when rescheduling a calendar entry. This problem happened when the user clicked Action->Reschedule->Client reschedule.
JLJE4TGL28	Fixed repeating calendar entries that span Daylight Savings Time in different time zones. Repeating calendar entries may be off by one hour in an environment where servers and clients follow different DST rules. Please note that you must also have the R5.0.9 version of forms5.nsf for this change to work properly.
JLJE52KQSB	Fixed the lines of text in messages from Outlook or GroupWise that is plain text and MIME encapsulated so that they now wrap properly.
WBLD4ZPEPS	Temporary directories and files that are created when a user opens an attachment are now deleted when the user clicks Logout.
CLYH52BJDC	Fixed the iNotes Web Access documentation to state explicitly that Sametime installed on the same server as Domino with iNotes Web Access does not work. For Sametime to work with iNotes Web Access, Sametime must be installed on a dedicated server. Please see the *iNotes Web Access Deployment Guide* available on notes.net.
ASUH4ZTP6B	PDF printing is disabled for DBCS.
PZHN4Z7AEV	The Preference field, Check for time conflicts, on calendar entries works. Users now receive an warning when two meetings are scheduled for the same time.
DLIU4YW69U	The problem of receiving a failure when removing an invitee and adding or removing a room/resource at the same time has been fixed.
FZHG4ZE3LK	The problem that caused the server to crash when a delegate sent a meeting invitation using Calendar Author or Editor access is now fixed.
YXUE4YWBJ4	An iNotes Web Access invitee can now counterpropose one instance of a repeating meeting, and the chair using WebMail can now accept that meeting counter.
YSUU4YS4RW	Help now includes information on how to change your access control level in order to use the Out of Office feature.
TIWI4ZFETC	A potential problem of Sametime not working properly even when configured properly has been fixed.
DLIU4XFDA5	Fixed a problem with resetting alarms. Prior to this fix, the alarm was still on after turning it off.

SPR number	Fix description
FAR4ZALGK	The problem of creating an appointment and not setting an alarm, and then editing the appointment and setting the alarm, is now fixed. Previously, the alarm did not signal.
SBAM524NN3	The wording in the fields in the server configuration document related to encryption of offline mail files has been changed to allow encryption to be configurable by users.
SLIN4XE8LJ	Creating a meeting invitation from a Notes client, and then adding a resource using the iNotes Web Access client to the same meeting, no longer produces a warning message.
DLIU4YG5RV	A decline notice is now sent to the chair if an invitee declines an invitation right after they propose a counter invitation.
SLIN4ZZ8Z6	Previously, when a delegate wrote a message and sent it, the receiver of the message knew that it was from the original author, not the delegate. But when that message was forwarded, it appeared as though the delegate was the author of the message. This problem has been fixed to include the correct author of the message.
JCIK52CGGS	The problem of opening some mail documents that generated needless iNotes warnings has been fixed. Another similar fix will be done for some DBCS languages in a future Maintenance release.
MOSI4ZSRRL	ACLs are now working properly when looking up users with the search user interface in the address dialog box.
SBED4ZDR99	Saving preferences on a Solaris server now works correctly.
DDAS4XXTTD	The full-text search that worked only on subject lines in messages has been fixed so that all fields of a message are now full-text indexed.
ELED4ZFPLZ	Fixed context-sensitive help link for Preferences so that the same topic appears when a user clicks Preferences (and clicks help) or comes to the Mail tab in Preferences from another tab (and clicks help).
DLIU4X36MZ	Prevent workflow from stopping when an invitee accepts an invitation, proposes a counter-invitation, and then accepts the decline of the counter-invitation. This problem did not exist if the original invitation was for a repeating meeting.
SBAM4ZTN2T	iNotes Web Access now presents the correct user interface to an Internet Explorer user when using an IBM WebSphere portal server after using Netscape which presents a WebMail user interface.
EMYS4XHKWU	Fixed a potential security issue.
DGUY4X3JMA	iNotes folders and nested folders now mimic the look and feel of Notes folders.

B.4 Domino Off-Line Services fix list

Table B-2 shows the list of fixes in Domino R5.0.9 specific to Domino Off-Line Services.

Table B-2 Domino Off-Line Services fix list in Domino R5.0.9

SPR Number	Fix description
JIMN4YYJ5M	When the Service Manager's Master Password is set, the new password is not being used in the Extension Manager. This password is needed to open a configuration database and was failing because the Extension Manager did not have the new password.
CLYH4YGM8Y	Fixed a problem introduced in R5.0.8 that prevented the iNotes Sync Manager from loading on Win95B.
GGEB4ZGU48	Fixed Notes authentication for DOLS so that the client's ID file can be upgraded with re-issued certificates.
LSHR4WJMQ3	Offline subscription now accepts the user’s correct Internet password when launched offline in a browser. Previously, sometimes the offline browser would accept the user's Notes password instead of the Internet Password, if those Passwords were different online.

Related publications

The publications listed in this section are considered particularly suitable for a more detailed discussion of the topics covered in this redbook.

IBM Redbooks

For information on ordering these publications, see “How to get IBM Redbooks” on page 190.

- *iNotes Web Access Deployment and Administration,* SG24-6518
- *Exchange Migration and iNotes Implementation on the IBM @server iSeries Server,* SG24-6230
- *Lotus Domino for AS/400 R5: Implementation,* SG24-5592
- *Lotus Domino for AS/400: Problem Determination Guide,* SG24-6051
- *Lotus Domino for iSeries: Sizing and Performance Tuning*, SG24-5162
- *IBM @server iSeries Wired Network Security: OS/400 V5R1 DCM and Cryptographic Enhancements,* SG24-6168
- *Lotus Sametime 2.0 Deployment Guide*, SG24-6206

Other resources

These publications are also relevant as further information sources:

- *Domino R5 Administration Help database (help5_admin.nsf*
- *iNotes Web Access Deployment Guide for Domino 5.0.9*

  This is a Lotus Whitepaper containing deployment planning, administration, security, and performance considerations about iNotes Web Access based on the R5.0.9 version. The white paper can be downloaded from Notes.net on the Web at: http://notes.net

  Search under the **Doc Library** link, or you can download the paper directly from: http://doc.notes.net/uafiles.nsf/docs/iNotes509/$File/IWA_Deployment_Guide_509.pdf

Referenced Web sites

These Web sites are also relevant as further information sources:

- You can access fixes, Notes-related documentation and example code downloads, known problems, questions and answers, as well as submit questions about Domino products to: http://www.notes.net
- This redbook lists the fixes relevant to iNotes Web Access in release 5.0.9. But, you can find the complete fix list for all versions at: http://www.notes.net/r5fixlist.nsf/SPRViewTemplate?OpenForm
- This redbook lists the enhancements and new features found in R5.0.9 of Domino, relative to iNotes Web Access. You can find the complete list in the Release notes, available in the original CD-ROM product or online in the Notes.net Web site at:

http://www.notes.net/notesua.nsf/ddaf2e7f76d2cfbf8525674b00508d2b/d8d55710a35e83f785256b10005eec59?OpenDocument

- IBM/Lotus Software Support site, previously known as Knowledge Base, is now an integrated site at: http://www-3.ibm.com/software/lotus/support/
- For system sizing and capacity planning, there is an online iSeries sizing tool called the IBM iSeries Workload Estimator. This tool keeps the most recent update of software and system models, not only for iNotes Web Access but other software solutions running on the iSeries server such as WebSphere, Domino mail and applications, Java, WebSphere Commerce Suite, traditional 5250 workloads, OS/400 HTTP server, and batch and client server workloads. You can find this Web site at: http://www.ibm.com/eserver/iseries/support/estimator
- *iNotes Web Access Performance Analysis* white paper at: http://www.notes.net/today.nsf/lookup/iNotes_performance
- Domino for iSeries updated news, related products, case studies, and online education is provided at: http://www.ibm.com/servers/eserver/iseries/domino/
- You can access OS/400 and Domino PTF requirements for each OS/400 version and Domino release, online PTFs, MRs, and MUs from: http://www.ibm.com/servers/eserver/iseries/domino/support

How to get IBM Redbooks

You can order hardcopy Redbooks, as well as view, download, or search for Redbooks at the following Web site:

ibm.com/redbooks

You can also download additional materials (code samples or diskette/CD-ROM images) from that site.

IBM Redbooks collections

Redbooks are also available on CD-ROMs. Click the CD-ROMs button on the Redbooks Web site for information about all the CD-ROMs offered, as well as updates and formats.

Index

Symbols

A

C

D

E

F

H

I

J

L

M

N

O

P

Q

(0.2”spine)
0.17”<->0.473”
90<->249 pages

iNotes Web Access on the IBM @server iSeries Server

Redbooks

Deploying and administering iNotes Web Access on the iSeries server

Configuring the cryptographic adapter for encryption

Tips for URL redirection and using LDAP for authenication

iNotes Web Access is a next-generation Web client that allows you to use many of the messaging and collaboration features of Domino through a Web browser. You can work with mail, calendar, to do lists, or a journal-like notebook from any client with Web browser access – without requiring a Lotus Notes client. You also have the option to work offline, without a permanent connection to the Domino server, or to work online seamlessly.

iNotes Web Access on the IBM @server iSeries server is not a platform-specific implementation. At the time when this IBM Redbook was written, only the redbook *iNotes Web Access Deployment and Administration*, SG24-6518, which is based on general platform information, was available. This IBM Redbook extends the topics written in that redbook from an iSeries server platform perspective. It also includes other general iNotes Web Access topics such as single sign-on, using LDAP for authentication, and URL redirection.

You can download the redbook, *iNotes Web Access Deployment and Administration*, SG24-6518, from the IBM Redbooks Web site (http://www.redbooks.ibm.com). You should also refer to the Lotus white paper, *iNotes Web Access Deployment Guide 5.0.9*, which is available for download from the Web site (http://notes.net). We strongly recommend that you use these materials, along with this redbook, for a complete guideline on how to deploy and implement iNotes Web Access on the iSeries server.

INTERNATIONAL TECHNICAL SUPPORT ORGANIZATION

BUILDING TECHNICAL INFORMATION BASED ON PRACTICAL EXPERIENCE

IBM Redbooks are developed by the IBM International Technical Support Organization. Experts from IBM, Customers and Partners from around the world create timely technical information based on realistic scenarios. Specific recommendations are provided to help you implement IT solutions more effectively in your environment.

For more information:
ibm.com/redbooks

SG24-6553-00 ISBN 0738425206