



Installation Guide

NSS-RMS-EXCH

RMS Exchange Mailbox Plug-in



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RMS Exchange MAPI Appointment Interface

Overview

The RMS application installation requires the *Exchange MAPI Appointment Interface* (not included) for appointment synchronization with Microsoft Exchange servers.

The Exchange MAPI Appointment Interface provides access to multiple Exchange servers, multiple Exchange mailboxes, and multiple Calendar folders within a single mailbox. This wide variety of connection options provides a robust and flexible solution for attaching RMS application rooms to Exchange calendars.

If you are using the Appointment Management features of the RMS application and you are using the RMS application with Exchange, some additional configuration is needed. Each room in the RMS application that has a schedule on the Exchange server needs to have access to that schedule through a mailbox on Exchange.

You need to configure your Exchange server to have a calendar folder for each room in the RMS application. Normally, this is accomplished by creating a single mailbox for each room. The RMS application allows a room to read schedule information from the default calendar folder or a particular calendar folder. This allows you to use a single Exchange mailbox with multiple calendar folders for multiple rooms in the RMS application.

To read schedule information from an Exchange mailbox, the Exchange MAPI Appointment Interface connects to the Exchange server, logs into the mailbox and accesses the calendar folder. To do this, the user context of the RMS Scheduling Manager Service must have access to the Exchange mailbox.

Typically, Windows services are run as the System account. In this configuration, the RMS Scheduling Manager Service needs to be configured to use an account that has access to every mailbox which the RMS application will access. The Configuration Wizard allows you to set the user for the RMS Scheduling Manager Service but you must configure Exchange to allow this user access to the mailboxes used by the RMS application.

RMS Exchange Appointment Interface - Technical Specifications / Requirements	
Microsoft Exchange Software Requirements	<p>The MAPI Subsystem must be installed on the RMS application server.</p> <ul style="list-style-type: none"> • For Microsoft Exchange Server 2003, install Microsoft Outlook • For Microsoft Exchange Server 2008, either install Microsoft Outlook, or install Microsoft Exchange Server MAPI Client and Collaboration Data Objects 1.2.1 (click link to download from Microsoft).
Microsoft Exchange Server Requirements:	<ul style="list-style-type: none"> • Microsoft Exchange 2003 • Microsoft Exchange 2007 SP2

Installation Checklist

Exchange MAPI Appointment Interface Install Checklist
<ul style="list-style-type: none"> • Create a calendar folder for each schedulable room in Exchange. You can use a single Exchange mailbox or multiple Exchange mailboxes to accomplish this.
<ul style="list-style-type: none"> • Create a user and grant that user access to the mailboxes that contain the schedule information. See the <i>Configuring Exchange Mailbox Permissions</i> section on page 15 for details configuring Exchange.
<ul style="list-style-type: none"> • Ensure that the MAPI subsystem is installed on the RMS application server. For Microsoft Exchange Server 2003, install Microsoft Outlook For Microsoft Exchange Server 2008, either install Microsoft Outlook, or install Microsoft Exchange Server MAPI Client and Collaboration Data Objects 1.2.1 (click link to download from Microsoft).
<ul style="list-style-type: none"> • In the Configuration Wizard, select <i>External Appointment Management/Schedule System</i> on the Scheduling page in the Welcome section.
<ul style="list-style-type: none"> • In the Configuration Wizard, configure the <i>Scheduling Manager Service</i> to run as the user created above.
<ul style="list-style-type: none"> • In the Configuration Wizard, you must register and configure the <i>Exchange MAPI Appointment Interface</i> scheduling plug-in.
For Each Room in the RMS application:
<ul style="list-style-type: none"> • Set <i>Room Is Schedulable</i> to Yes when adding new rooms. • When adding a new room, click the Configure button on the <i>Configure Exchange MAPI Appointment Interface</i> item and enter the Exchange server, mailbox names, and pick a calendar folder if you are not using the default calendar. • Use the Test button to ensure that the RMS application can access the mailbox and calendar.

RMS Exchange Plug-in Configuration

Overview

To use the *Exchange MAPI Appointment Interface* scheduling plug-in, it must first be registered. Only a single scheduling plug-in may be registered at one time.



The RMS application must be configured for External Scheduling Systems for the scheduling plug-in configuration dialog to be displayed.

The plug-in configuration is performed in the Configuration Wizard under the *System Settings, Scheduling* node of the navigation tree (FIG. 1).

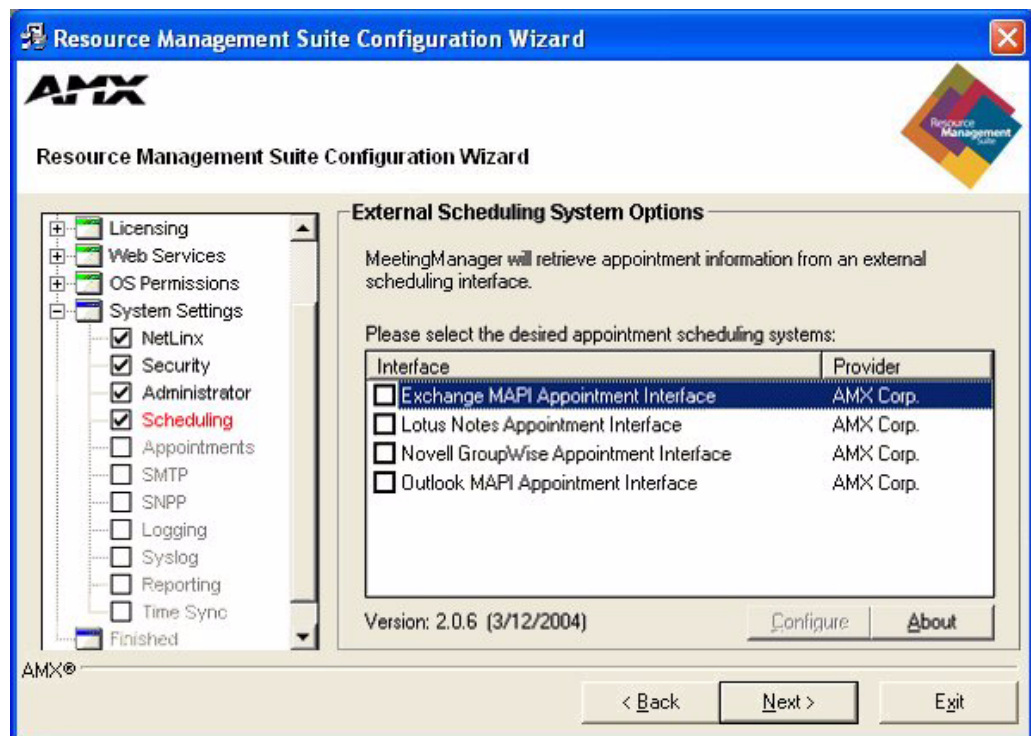


FIG. 1 RMS Configuration Wizard - External Scheduling System Options

Registering the Exchange MAPI Appointment Interface

To register the *Exchange MAPI Appointment Interface*:

1. Place a checkmark in the box to the left of the entry in the scheduling plug-in list. This will automatically load the *Plugin Global Options* dialog - *Exchange Servers* tab (FIG. 2).
 - The *Exchange Servers* tab provides the RMS application with a list of all the exchange servers to which you wish the RMS application to have access.
 - These Exchange servers must be accessible via the network the RMS application server is on.

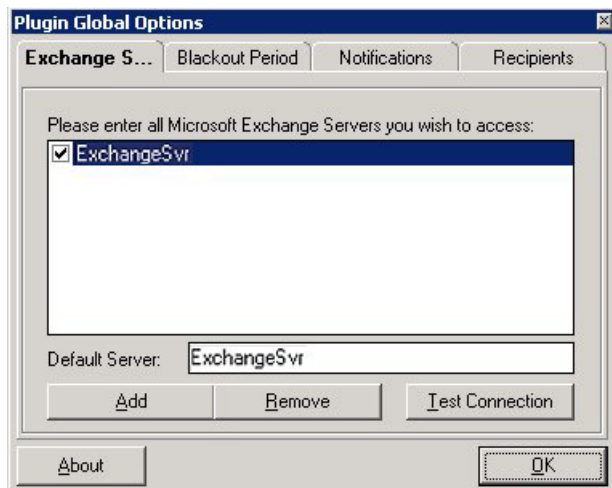


FIG. 2 Plug-in Global Options - Exchange Servers tab

2. Add all of the desired Exchange servers to this list.



NOTE

Typically this will only be a single Exchange server. However, RMS supports adding multiple Exchange servers. If multiple Exchange servers have been added, the Login information is the same for all.

Additionally, you can place a check next to the Exchange server you wish to be the RMS application default Exchange server.

This default setting forces the room configuration to select this server as the default in the list; however, you can specify any of the listed servers for a room.

After entering your Exchange servers, it is important to test access to each one.

Testing Connections to Exchange Servers

1. Select it in the server list and click **Test Connection**.
2. The *Test Connection* dialog displays the actual Windows user account that aligns with the configuration of the **RMS Scheduling Manager** service (FIG. 3).

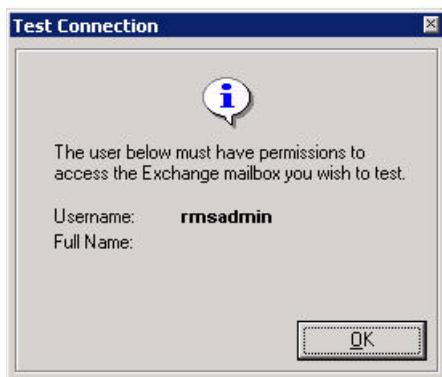


FIG. 3 Test Connection dialog



NOTE

*If this account is incorrect, review the **Services** section of the *RMS Administrator's Guide* (Configuration Wizard chapter).*

3. If the account is correct, click **OK** to continue.
4. You are prompted to enter a mailbox on the Exchange server to test (FIG. 4). Enter a valid mailbox name and click **OK**.

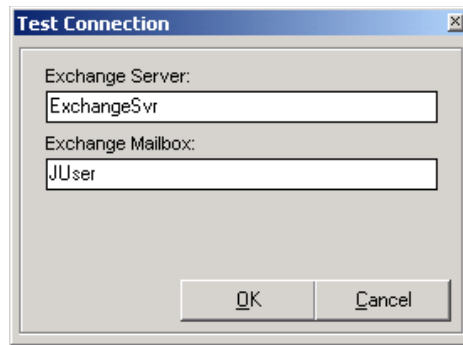


FIG. 4 Test Connection dialog

- If access to the Exchange server and mailbox was successful, the *Exchange MAPI Appointment Interface* test dialog will display a success message.
- If a connection to the Exchange server was successfully, but the test was unable to access the specified mailbox, the *Exchange MAPI Appointment Interface* test dialog will display the following message:

The server and mailbox are valid but access to the mailbox is denied.

This error can be caused because the Windows user account the RMS Scheduling Manager service is configured as is incorrect or does not have access permissions to the specified mailbox.

- If this account is incorrect, review the *Service Registration* topic in the Configuration Wizard documentation.
- If the account is correct, refer to the *Configuring Exchange Mailbox Permissions* section on page 15.

Configuring a Blackout Period

The **Blackout Period** tab of the *Plugin Global Options* dialog (FIG. 5) contains the settings for scheduling synchronization/trolling blackout.

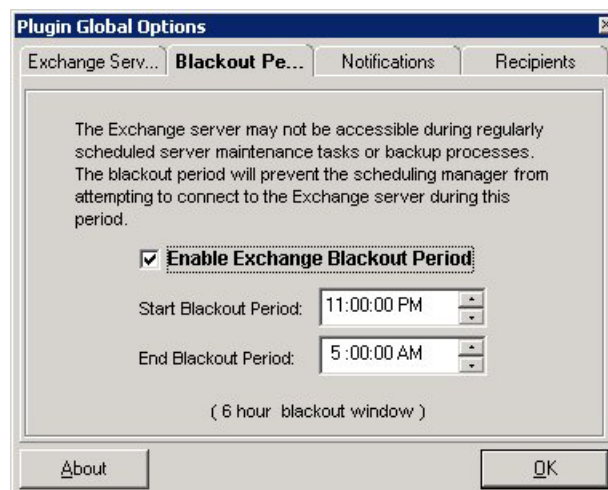


FIG. 5 Plug-in Global Options - Blackout Period tab

During this blackout period, The RMS application will not attempt to establish a connection to any Exchange server.

Many systems perform nightly backups or system related processing where the server may not be available or should not be accessed. The blackout option prevents the RMS application from accessing the server during these times.

This option is enabled by default and is recommended. You may change the time frame to accommodate your specific environment.

Configuring Notifications Preferences

The *Notifications* tab (FIG. 6) provides options for sending return notification emails to the appointment originator.



FIG. 6 Plug-in Global Options - Notifications tab

If you select **Do Not Send Appointment Notifications**, the Exchange MAPI Appointment Interface will not send any notification emails to the appointment originator. Otherwise, the RMS application can deliver this appointment notification message via either MAPI or SMTP.

- Notifications routed via MAPI, are delivered to the originator directly on the Exchange server by the Exchange MAPI Appointment Interface scheduling plug-in.
- Notifications routed via SMTP are not delivered via the Exchange MAPI Appointment Interface scheduling plug-in, but rather through the standard RMS application email and notification system.

Configuring Recipients Preferences

The *Recipients* tab (FIG. 7) provides options for specifying recipients of notification emails.



FIG. 7 Plug-in Global Options - Recipients tab

- Select **Use the 'Required' field** to put the room mailbox in the 'Required' field of the Exchange appointment object. This is the default setting.
- Select **Use the 'Resources' field** to put the room mailbox in the 'Resources' field of the Exchange appointment field.

Completing the Configuration Wizard

After you can set all the appropriate plug-in settings, click **OK** to complete the plug-in configuration. You can return to this configuration at any time using the Configuration Wizard, selecting this plug-in from the list, and clicking the **Configure** button.

Room Scheduling Configuration

For a given room to access a specific calendar on an Exchange mailbox, the room must first be configured with the appropriate access information. In the web administrative interface, when you add a new room or modify an existing room, you are provided with *Room Scheduling Settings*.

FIG. 8 Room Scheduling Settings

- **Configure Exchange MAPI Appointment Interface:** click the **Configure** button to access the room scheduling configuration.
- **Schedule Server:** select the desired Exchange server from the list. The default Exchange sever is initially selected.
- **Scheduling Mailbox:** enter the mailbox/account that you wish this room to access and that exists on the selected Exchange server.
- **Schedule Folder:** this field allows you to change the calendar folder that this room accesses on appointment synchronization and trolling cycles. By default it uses the default primary calendar folder.

Ensure that you only select a folder that contains appointments.



NOTE

The RMS application will not access emails, tasks, notes, etc.

After completing the room configuration fields, it is recommended to test the mailbox and calendar access using the **Test** button in the room scheduling plug-in configuration window.

- If the RMS application successfully accesses the provided mailbox and calendar on the provided Exchange server, you are prompted with a success message:
Success: Connected Successfully to Mailbox.
- If a connection to the Exchange server was successful but the application was unable to access the specified mailbox, the following message is displayed:
Failed: MAPI Logon Failure The server and mailbox are valid but access to the mailbox is denied.
This error can be caused because the Windows user account the **RMS Scheduling Manager** service is configured as is incorrect or does not have access permissions to the specified mailbox.
 - If this account is incorrect, review the Service Registration topic in the Configuration Wizard documentation.
 - If the account is correct, you can view and configure the mailbox's permissions (see the *Configuring Exchange Mailbox Permissions* section on page 15).

Once you have completed the room scheduling plug-in configuration and tested the mailbox successfully, make sure to click the **Save** button in the room scheduling plug-in configuration window to store your settings.

Microsoft Exchange Form

Overview

An Exchange Administrator needs to install and deploy the included form, RMS Exchange Appointment.oft (in the plugin directory), to the Exchange servers Organizational Forms Library.

This Library should exist in Exchange 2003, but may need to be added into Exchange 2007.

For further information see:

"How to create an Organizational Forms Library in Exchange 2007"

(<http://support.microsoft.com/?kbid=933358>).

The Form will have to be edited to change the **RMSWEB** field in the "(All Fields)" tab to point to your RMS Website (FIG. 9).

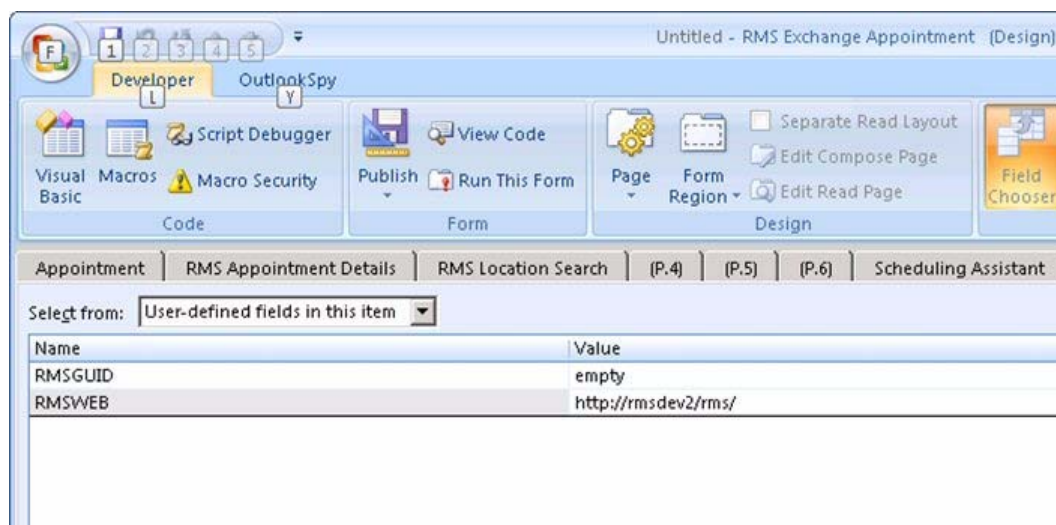


FIG. 9 RMS Exchange Appointment (Design)



*Do not modify or remove the **RMSGUID** field.*

Some editing of the Form Code may be required in non-English installs.

The RMS form is localized to the RMS Server, however, the respective tabs in the form are not. The Appointment tab is navigated by name and will need a code change, as well.

The Exchange Administrator can edit the form code and change the following:

```
'for navigational purposes, to get back to the appointment page required the
string name which may be different in different languages' so, please update this
variable to the appointment tab name exchangeapptpage = "Appointment"
```

Once modifications are complete, publish the form.

When deploying the form, you can instruct all users to set the RMS Exchange Appointment form as the default calendar form, or you can have users select the form each time from the Organizational Forms Library to create the RMS Appointment.

Configuring Microsoft Exchange Mailbox

Overview

This information is intended to assist you in creating Exchange mailboxes and configuring Exchange mailboxes for use with the RMS application. The Network Administrator should perform this type of configuration.

Creating a New Exchange Mailbox

Microsoft Exchange creates mailboxes based on user accounts in the active directory or domain. To create a new mailbox in Exchange, create a new user in the active directory/domain. To create a new user account, you must logon to the domain controller (or remote computer with domain administration utilities). You must logon to the domain controller as an existing user with domain administrator privileges.

1. Begin by starting the *Active Directory Users and Computers* utility, located in the **Control Panel\Administrative Tools** folder (FIG. 10).

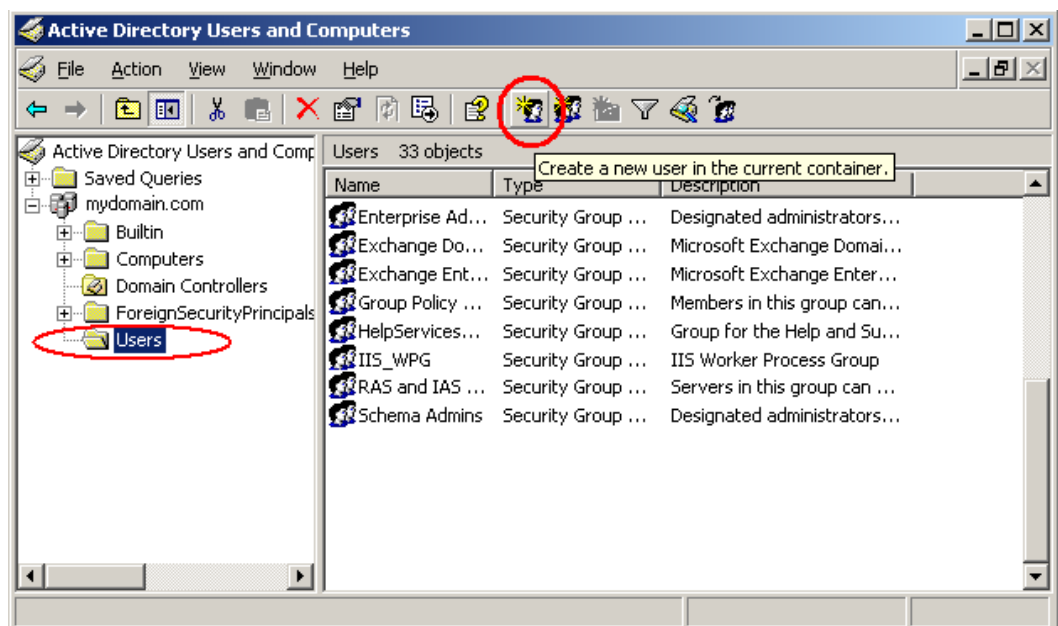
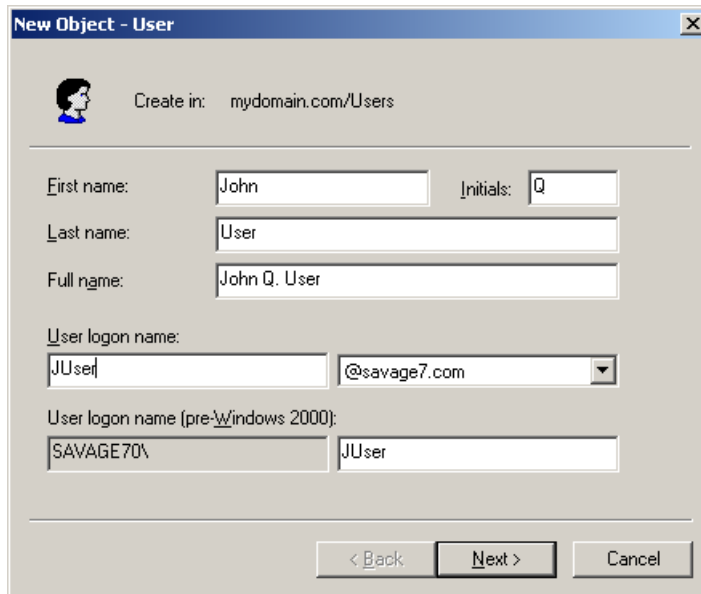


FIG. 10 Active Directory Users and Computers ("Users" domain container selected)

2. Select and expand the desired domain container (i.e. "mydomain.com" in FIG. 10).
3. Select the **Users** container.
4. Click the **Create New User** button on the toolbar. This invokes the first of four *New Object - User* dialogs (FIG. 11).



New Object - User

Create in: mydomain.com/Users

First name: John Initials: Q

Last name: User

Full name: John Q. User

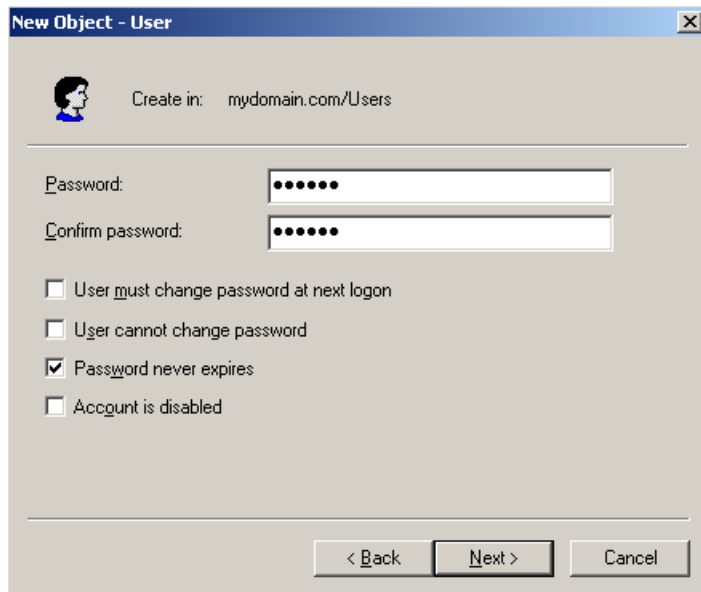
User logon name: JUser @savage7.com

User logon name (pre-Windows 2000): SAVAGE70\ JUser

< Back Next > Cancel

FIG. 11 New Object - User dialog #1 (User Name and Logon Information)

5. Enter the appropriate User name and User logon (account) name information.
6. Click **Next** to invoke the second *New Object - User* dialog (FIG. 12):



New Object - User

Create in: mydomain.com/Users

Password:

Confirm password:

☐ User must change password at next logon

☐ User cannot change password

☒ Password never expires

☐ Account is disabled

< Back Next > Cancel

FIG. 12 New Object - User dialog #2 (Enter and Confirm User Password Information)

7. Enter and confirm the appropriate account password.
8. Click **Next** to proceed to the third *New Object - User* dialog (FIG. 13):

New Object - User

Create in: mydomain.com/Users

☒ Create an Exchange mailbox

Alias:
JUser

Server:
Savage7/First Administrative Group/SAVAGE7

Mailbox Store:
First Storage Group/Mailbox Store (SAVAGE7)

< Back Next > Cancel

FIG. 13 New Object - User dialog #3 (Enter Exchange Mailbox Information)

9. Enter the appropriate Exchange Alias (account mailbox name), Server, and Mailbox Store information.
10. Click **Next** to invoke the final *New Object - User* dialog (FIG. 14).

New Object - User

Create in: mydomain.com/Users

When you click Finish, the following object will be created:

Full name: John Q. User
User logon name: JUser@mydomain.com
The password never expires.
A Microsoft Exchange mailbox will be created on:
MYDOMAIN/First Storage Group/Mailbox Store (MYDOMAIN)

< Back Finish Cancel

FIG. 14 New Object - User dialog #4

Use this dialog to review the information entered.

11. Click **Finish**.

At this point, the new user account and mailbox have been successfully created. Continue to the *Configuring Exchange Mailbox Permissions* section on page 15.

Configuring Exchange Mailbox Permissions

Overview

This section will assist in configuring user account access to another Exchange mailbox.

Microsoft Exchange mailbox permissions are managed in the active directory. To manage Exchange mailbox permissions, you must login to the domain controller (or remote computer with domain administration utilities).



*You must login to the domain controller as an existing user with **Domain Administrator** privileges.*

1. Begin by starting the *Active Directory Users and Computers* utility (located in the **Control Panel/Administrative Tools** folder).
2. Select **View > Advanced Features** (FIG. 15).

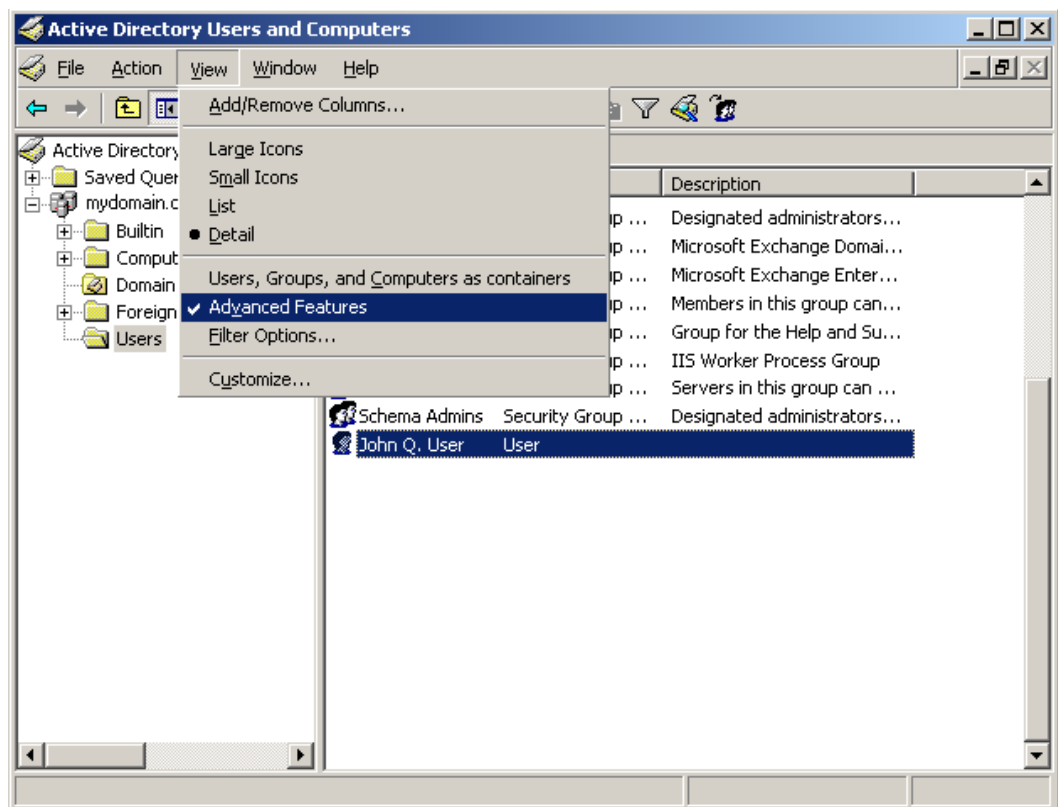


FIG. 15 Active Directory Users and Computers (Advanced Features selected)

3. Select and expand the desired domain container (i.e. "mydomain.com" in FIG. 15).
4. Select the **Users** container.
5. Select the user account whose mailbox you wish to configure permissions.
6. Right-click the user account and select **Properties** (FIG. 16).

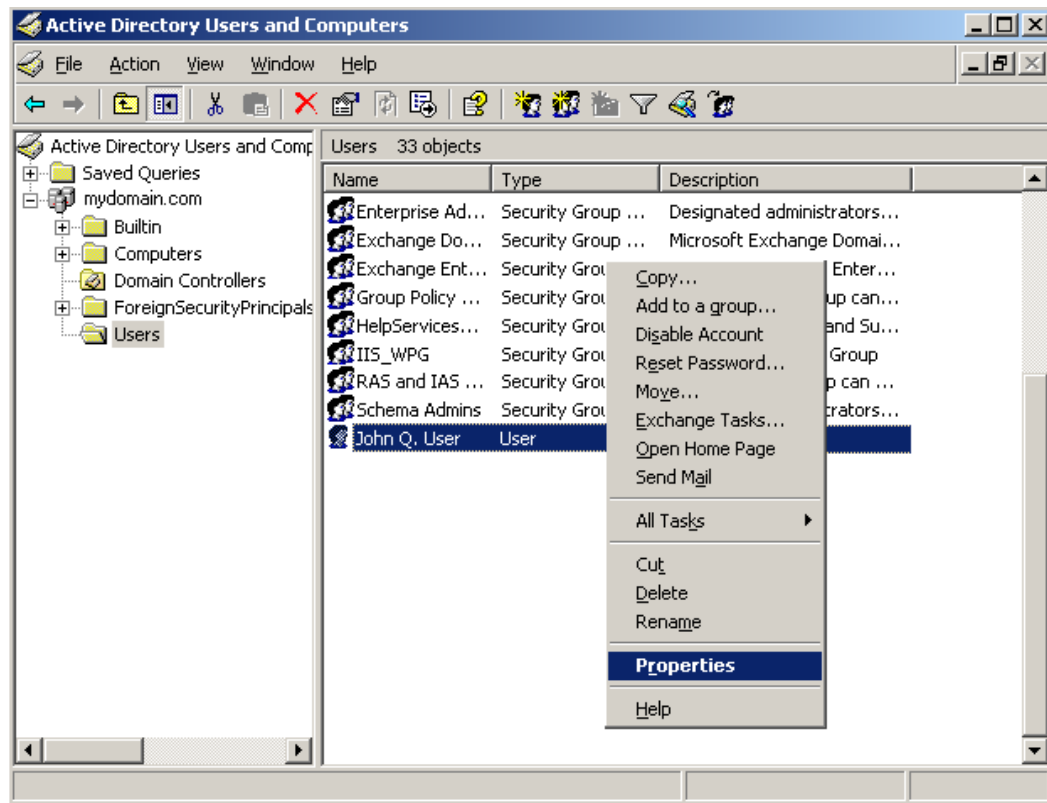


FIG. 16 Active Directory Users and Computers (User Properties selected)

This invokes the <User Name> Properties dialog:

7. Select the *Exchange Advanced* tab (FIG. 17).

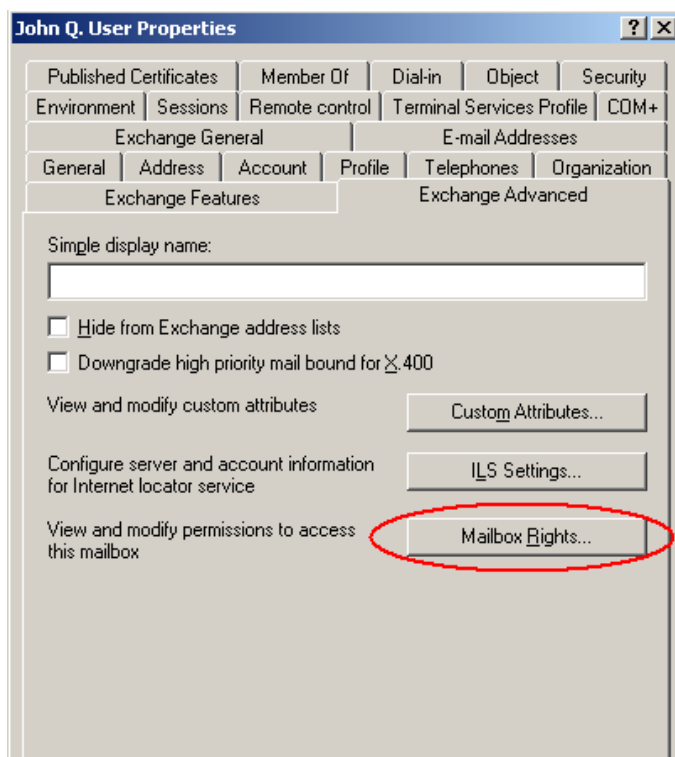


FIG. 17 <User Name> Properties dialog (Exchange Advanced tab)

8. Click **Mailbox Rights**. This invokes the *Permissions for <User Name>* dialog (FIG. 18).

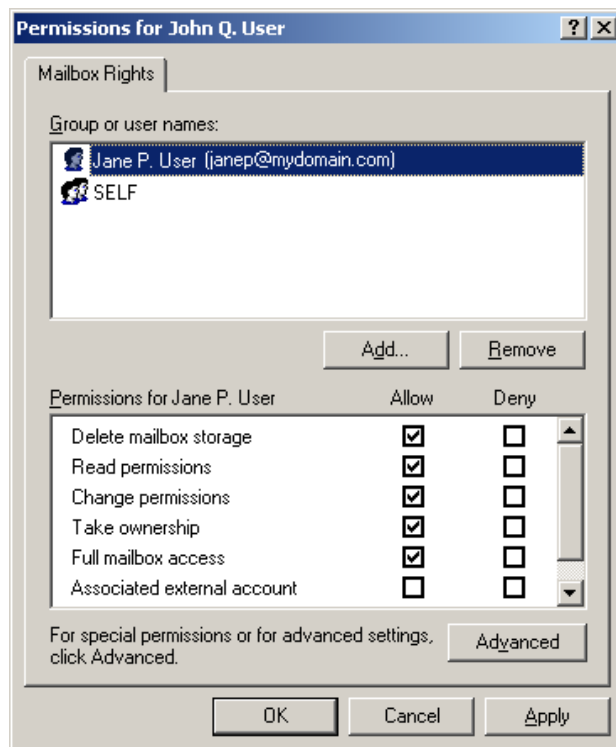


FIG. 18 Permissions for <User Name> dialog

9. Add the user to whom you want to grant access to this mailbox (i.e. *Jane P. User* in FIG. 18).
10. Select the newly added user (*Jane P. User* in FIG. 18).
11. In the *Permissions* list, enable **Read permissions** and **Full mailbox access** (at a minimum) for the selected user.

The example shown in FIG. 18 grants user "Jane P User" full access to "John Q. User" mailbox.

- The RMS Scheduling Manager service should be configured to logon using the "Jane P User" user account.
- A room in the RMS application could be configured to access the "Jane P User" mailbox or the "John Q. User" mailbox, since the "Jane P User" now possesses access permissions to both.

Known Issues

1. Recurring meeting instance exceptions are not displayed accurately in RMS. Recurring meeting instance exceptions are one-off modifications made to individual recurring instances that do not follow the recurring pattern established when the recurring meeting was initially created. RMS does display and synchronize all recurring instances that are not exceptions to the recurring pattern.
2. Meetings that are created on-behalf-of other users in Exchange only grant the original organizer user account permissions to the appointment in the RMS web user interface, thus the on-behalf-of user account is not granted direct access.
This restriction only applies when RMS is configured to use authenticated users for the scheduling user interface or when configured to use IIS windows integrated authentication.
3. RMS communicates with the Exchange server via MAPI.
This requires that the user account that the RMS Scheduling Manager service runs as must have domain permissions to the mailbox accounts and calendars in Exchange for each room resource.
4. RMS communicates with the Exchange server via MAPI.
This requires that the RMS server be located in the same active directory/domain as the Exchange system or on a trusted domain that can access the Exchange server.



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