MITEL NETWORKS

6510 Unified Messaging

MSS INSTALLATION GUIDE Draft





it's about **YOU**

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6510 Unified Messaging MSS Installation Guide

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Document Overview

This guide provides detailed instructions on installing the 6510 Unified Messaging (UM) MSS software.

Note: Some screen captures in this document may not reflect the Mitel Networks[™] 6510 UM software exactly. All screens will be updated in the next release of the 6510 UM documentation.

Intended Audience

This guide is intended for anyone responsible for installing and maintaining the 6510 Unified Messaging MSS software, including IT Administrators.

Before You Begin

Before you begin, ensure that you have fulfilled both the hardware and software requirements.

Conventions

This guide contains three types of help:

Note: Contains additional information about the task you are performing

Hint: Contains an alternative method of performing the task or offers a solution if you run into a problem.

Caution: Information that alerts you to potential loss of data or potential damage to an application, system, or device.

Warning:Information that alerts you to potential personal injury.

Contacting Mitel Networks

Contact us by mail at:

Mitel Networks Corporation 350 Legget Drive Ottawa, ON K2K 2W7

Contact us by phone:

Tel: 613-592-2122 Fax: 613-592-4784

Contact us on the Web:

www.mitel.com

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MSMQ Overview

MSMQ software uses a centralized queue server (Primary Enterprise Controller or PEC) and a set of MSMQ clients. There are two types of clients—dependent and independent—but only independent clients might be used with MSS.

MSS software runs under **both** Windows NT 4.0 and Windows 2000 platforms. Due to using MSMQ, you must install and configure TCP/IP services on each machine that runs MSS software. **All machines should be configured to use DNS name resolution.**

Many distributed applications need the ability to handle delays between a request and a response. This is because all the steps of a distributed application process may not need to or cannot be completed at one time. Microsoft Message Queuing (MMQ) allows applications to use components that communicate with one another using queued messages. Like e-mail messages that sit in an inbox, messages can exist on dissimilar systems that may not even be directly communicating with each another.

Installing MSMQ

The following steps are required to install MSMQ:

- For an NT 4.0 network, install MSMQ 1.x on a network domain controller (Windows NT4).
- 2. **For a Windows 2000 network**, install MSMQ 2.0 server on a network domain controller (Windows 2000).
- 3. Install MSMQ as an independent client on your Exchange server.
- 4. Connect the VM Server to the domain, then install MSMQ on the 6510 UM system.
- 5. Typically, the MSS server and MSMQ primary enterprise controller executed (PEC), should be on the same computer, that belongs to some Windows NT domain or acts as a PDC or BDC for domain.
- 6. Messaging servers and MSS connectors can be executed on computers that belong to same domain as computer that runs MSS server. Each machine that has MSS connector installed should run MSMQ independent client connected to MSMQ primary enterprise controller (see explanation below).

 Make sure that computers that are supposed to run MSS server or MSS connectors have Windows NT Server 4.0 / Windows 2000 Server or NT 4.0 workstation/ 2000 professional is installed and configured. Each computer should belong the same Windows domain.

Warning: You will need Administrator rights for the domain in order to install MSMQ and the MSS software

The IP of the Server must be static.

NT 4.0 Network Requirements for MSMQ

There are four components required to run MSMQ on an NT 4.0 Network:

- 1. SQL 7.0
- 2. MSMQ Server
- 3. MSMQ 1.0 Client on Windows NT 4.0
- 4. MSMQ 2.0 Client on Windows 2000

MSMQ 1.0 Server Requirements

The following servers are used by MSMQ:

- 1. PEC
- 2. PSCs
- 3. BSCs
- 4. MSMQ routing servers

Connectivity Requirements

The following requirements must be met for correct connectivity:

- 1. Each MSMQ controller server must meet the connectivity requirements of the enterprise.
- 2. PSCs (and the PEC) must share a CN with every other PSC.
- 3. BSCs must share a CN with the PSCs or the PEC they back up.

4. Every MSMQ independent client and MSMQ routing server must share a CN with at least one PSC/PEC or BSC within its own site.

Ensuring Optimal Performance

To ensure optimal performance, do not install MSMQ servers on a primary domain controller (PDC) or a backup domain controller (BDC) . PDCs and BDCs maintain and replicate the network accounts database and perform network login authentications, which are resource-intensive tasks.

If you have a very small network in which account information rarely changes, and in which users do not log on and off frequently, you can use the same server as both a domain controller and an MSMQ server.

Note: MSMQ controller servers PEC, PSCs, and BSCs) use a SQL Server version 7.0 database to store the MQIS.

Specifying MSMQ Controller Server Computer Names

To ensure that SQL installs correctly, the MSMQ controller server's computer name must be a valid SQL identifier, with the first character of the computer name being a letter or an underscore. Characters following the first character can include letters, numbers, or the symbols –, #, \$, or _. However, no embedded spaces are allowed.

If your computer name contains a hyphen, the SQL Server Setup will display a warning message stating that the computer name is not valid. If characters that SQL does not recognize are used in the computer name, you must rename the computer before installing MSMQ or SQL Server. For directions on renaming computers, refer to the Windows NT online Help.

If the renamed computer is a member of a Windows NT Server domain, contact your network administrator to have the new computer name added to the domain.

Overview of the Installation Procedure for MSMQ Server 1.0

Perform the following steps to install MSMQ Server 1.0:

- 1. Install NT 4.0 server use standard install.
- 2. Apply service pack 3.0.
- 3. Install service pack 4.0 or higher.
- 4. Install Microsoft IE4.01 or higher.
- 5. Install SQL 7.0. Make sure the following registry key exists before proceeding:

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Setup-"SQLPath"="C:\MSSQL"

- 6. From the NT4.0 option pack disk, install MSMQ as a PEC.
- 7. Use Explore to ping MSMQ to verify it is working.
- 8. Apply NT 4.0 service pack 4.0 or higher.

Installing SQL 7.0 for MSMQ 1.0 server

You must have both Service Pack 5 and IE 4 to install SQL 7.0. You will install SQL on the same machine that you plan to install the MSMQ1.0 server software on. MSMQ users the SQL database to store event queues in the network.

♦ To install SQL 7.0

1. Insert the Windows NT 4.0 Option Pack CD into the CD-ROM drive. The Welcome screen appears.



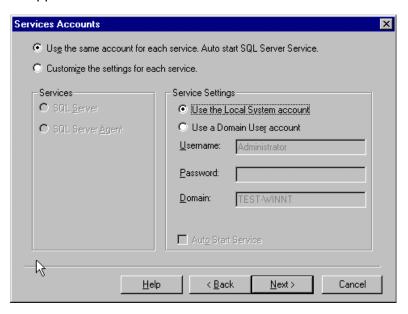
2. Double-click **Select SQL Server 7.0 Components**. The Install SQL Server 7.0 Components dialog appears.

3. Double-click **Database Server** - Desktop Edition. The Select Install Method dialog appears.



- 4. Select **Local install** Install to the Local Machine, then click **Next**. The Welcome dialog appears.
- 5. Click Next. The Software License Agreement dialog appears.
- 6. Click ${\mbox{Yes}}$. The User Information dialog appears.
- 7. In the Name field, enter the user's name
- 8. In the **Company** field, enter the company name and click **Next**. The Setup Type screen appears.

Click on Typical Installation, leaving the destination folders as their default settings and click Next. The Services Accounts dialog appears.



- 10. Select Use the same account for each service. Auto start SQL Server Service.
- 11.In the Service Settings, select Use the Local System account as the service setting and click Next. The Start Copying Files dialog appears.
- 12. Click **Next**. The Setup process begins. After the Setup process completes, the Setup Complete dialog appears. Click **Finish**, then restart the computer.

Once the SQL server installation is complete you can now proceed to install MSMQ server 1.0

Installing the MSMQ Server 1.0 Overview

The Microsoft Message Queue (MSMQ) server is installed as part of the Windows NT 4.0 Option Pack installation. When the MSMQ is selected, it inserts configuration dialog boxes both before and after the Option Pack file copying process. If you elected to install the Microsoft Message Queue server, the MSMQ Setup dialog box appears and prompts you to choose the MSMQ server or client component to install. By default, the Primary Enterprise Controller (PEC) option is selected, with the PEC containing the master copy of the MSMQ Information Store.

Note: For an enterprise network, a Primary Enterprise Controller is required in order for other MSMQ servers or clients to be installed.

In addition to the Primary Enterprise Controller option, the Message Queue server dialog box enables you to select six other options, specifically:

Option	Function
Primary Site Controller (PSC)	A primary site controller is required at each site.
Backup Site Controller (BSC)	Backup site controllers are not required, but are recommended for failure recovery.
Routing Server	A routing server provides routing, store and forward services, and remote message store
Independent Client	Independent clients contain their own message stores, and can send or receive messages
Dependent Client	Dependent clients require an active network connection and do not contain their own message stores.
RAS Connectivity Service	The RAS connectivity service enables remote clients to use MSMQ message services.

Note: If this is the first MSMQ installation on the network, you must select the Primary Enterprise Controller option. Otherwise, choose the type of MSMQ installation you want to perform.

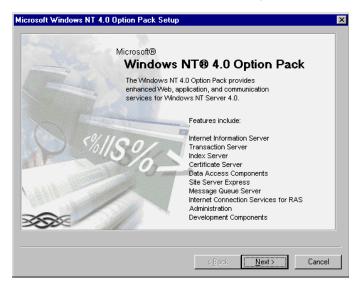
Installing MSMQ Server (PEC) 1.0

The Primary Enterprise Controller (PEC) is another term for the MSMQ server. A complete MSMQ install is called an Enterprise, and the assigned server is the main controller or PEC.

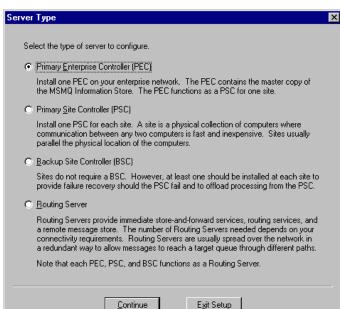
Note: Before you start, make sure that Windows NT Server 4.0 is installed and configured.

◆ To install MSMQ Server

1. Insert the Windows NT 4.0 Option Pack CD into the CD-ROM drive. In a few seconds, the Welcome dialog appears.

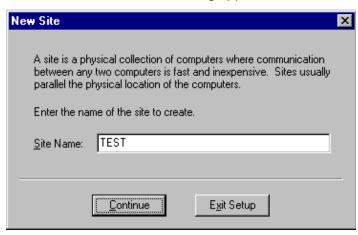


- 2. Click **Next**. The End User License Agreement dialog appears.
- 3. Click **Accept**, then **Next**. The following dialog appears.
- 4. Click **Custom**. The Select Components dialog appears.



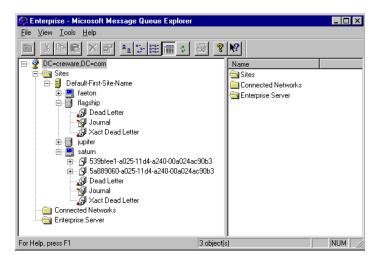
5. Click **Next**. The Server Type dialog appears.

- 6. Select **Primary Enterprise Controller** (PEC) and click **Continue**. The Information Server Database on SQL Server dialog appears.
- 7. Use the default options for MSMQ database and click **Continue**. The New Enterprise dialog appears.
- 8. In the **Enterprise Name** field, enter the Enterprise name for MSMQ Enterprise and click **Continue**. The New Connected Network dialog appears.
- In the Connected Network Name field, enter the name of the Domain. Select IP as the Protocol and click OK. The Connected Networks dialog appears.



10. Click **Add**. The New Site dialog appears.

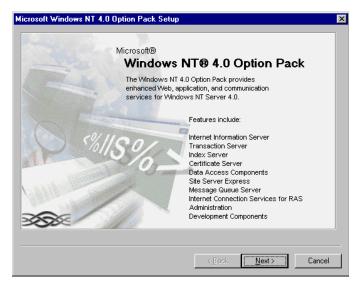
- 11.In the **Site Name** field, enter the name of the site, then click **Continue**. The MSMQ Server setup is now complete.
- 12. Install MSMQ clients on all computers those supposed to run MSS software and configure MSMQ software as described below.
- 13. Use MSMQ Explorer to make sure that new MSMQ Enterprise was created.



Installing MSMQ 1.0 Client on Windows NT 4.0

Before you start, identify the operating system that the client is running. MSMQ1.0 client can be installed on Windows NT 4.0

- ◆ To install MSMQ 1.0 Client on Windows NT 4.0
 - 1. Insert the Windows NT 4.0 Option Pack CD into the CD-ROM drive. In a few seconds, the Welcome dialog appears.

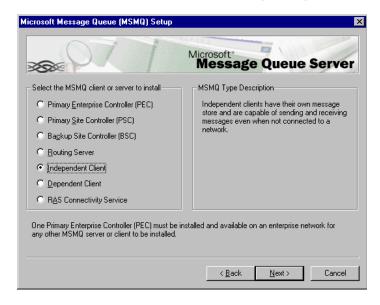


- 2. Click Next. The End User License Agreement dialog appears.
- 3. Click **Accept**, then **Next**. The following Option Pack dialog appears.
- 4. Click Custom. The Select Components dialog appears.
- 5. Check **Microsoft Message Queue**, then click **Next**. The Information Server Setup dialog appears.

6. In the MTS Install Folder field, enter the installation folder for Microsoft Transaction Server, then click Next. The following dialog appears.



7. Select **Local** as the administration mode for Microsoft Transaction Server, then click **Next**. The following dialog appears.



- 8. Select **Independent Client** as the type of MSMQ software that you want to install, then click **Next**.
- 9. Click **Next**. The Microsoft Message Queue Setup dialog appears.
- 10. Specify the name of the computer running MSMQ Server. If MSMQ 1.0 server is used, specify the name of primary site controller.
- 11. Click **Next**. The Microsoft Message Queue Setup dialog appears.
- 12. Specify installation folder for MSMQ software, then click **Next**.
- 13. Click **Finish**. The a confirmation message appears.
- 14. Click **Yes**. After the system has restarted, use MSMQ Explorer to make sure that the new MSMQ client was created.

Installing MSMQ 2.0 Client on Windows 2000 Professional for MSMQ server 1.0

Before you install MSMQ 2.0 Client on Windows 2000 professional integrated with a MSMQ1.0 server, make sure that you have:

- Installed and configured Windows 2000
- 2. Installed MSMQ 1.0 Server software on the primary site controller.
- 3. Made sure that the computer is part of the Windows NT 4.0 Domain where the MSMQ 1.0 Server is installed.

♦ To install MSMQ 2.0 Client

- Click Start > Settings > Control Panel. The Control Panel window appears.
- 2. Double-click **Add/Remove Programs**. The Add/Remove Programs window appears.

3. Click **Add/Remove Windows Components**. The Windows Components dialog appears.



- Select Message Queuing Services, then click Next. The Message Queuing Type dialog appears.
- 5. Select **Independent Client**, then click **Next**. The Configuring Components dialog appears and begins installing MSMQ.

Note: The software will search for the PEC connected to the network.

 Click Finish, do not proceed with the terminal server installation when installation is complete. Restart the computer. After the system has restarted, use MSMQ Explorer to make sure that the new MSMQ client was created.

Using the MSMQ Explorer

The MSMQ Explorer is a Windows-based management tool for administering MSMQ operations on your network. This test is a mandatory requirement before starting MSS installation.

◆ To use MSMQ Explorer

To run MSMQ Explorer, click Start > Programs > Windows NT 4.0
 Option > Pack Microsoft Message > Queue Explorer. The Tools menu provides the following options:

Options	Function
Find	Find a Computer or Queue
Purge Queue	Purge the contents of a queue
Send Test Message	Test a message queue
Remove User Certificates	Remove the certificate from a selected user
	account.

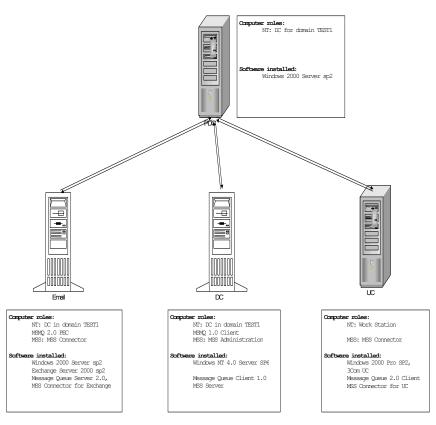
You must be able to find other machines that have MSMQ installed. If you cannot find a MSMQ client to the MSMQ server (or vice versa), do not install the MSS middleware service for Unified messaging.

Installing MSMQ 2.0 in a Windows 2000 Network

If you are installing the Server in a Windows 2000 network utilizing an active directory, you must add the MSMQ 2.0 server to your network.

Software required for a Windows 2000 network:

- 1. MSMQ server 2.0 installed on a Windows 2000 server with windows 2000 server OS SP2
- 2. MSMQ Client 2.0 installed on the existing e-mail server



3. MSMQ client 2.0 installed on the Server

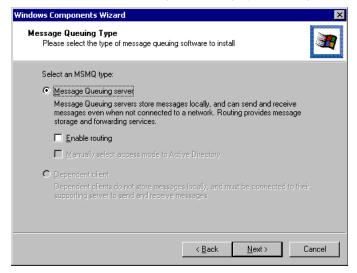
Installing MSMQ 2.0 Server

Before you install MSMQ 2.0, make sure that:

- 1. You have installed and configured the active directory services.
- You have reinstalled the latest Windows service pack following the MSMQ and IIS installation and setup

To install the MSMQ 2.0 Server

- 1. Click Start > Settings > Control Panel on the machine that you plan to install the MSMQ server on. The Control Panel window appears.
- 2. Double-click **Add/Remove Programs**. The Add/Remove Programs window appears.
- Click Add/Remove Windows Components, select Message Queuing Services and click Next. The Terminal Services Setup dialog appears.
- Select Remote Admin for remote administration or Application Admin for application administration. The Windows Components dialog appears.
- 5. Click **Next**. The Message Queuing Type dialog appears.

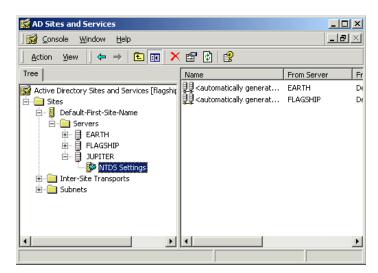


- 6. Select Message Queuing server, then click Next.
- 7. The Windows 2000 Messaging Queuing Clients dialog appears.
- 8. Click **Next**. The Setup program begins to configure the components. After the installation is complete verify MSMQ is installed properly through active directory.

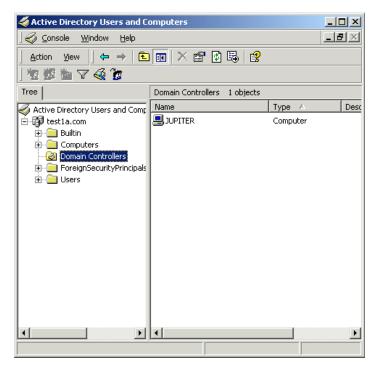
Verifying the Installation of MSMQ on Windows 2000

Follow this procedure to view the MSMQ server in the network.

- ◆ To verify the server software
 - 1. Open Active directory sites and services snap-in.



2. Make sure that the server where you have installed MSMQ server is the global catalog for active directory by viewing the properties for NTDS services for this server.



3. Open Active directory Users and Computers snap-in.

- Select View>Advanced features.
- 5. Select View>Users and computers as containers.
- 6. Make sure that MSMQ object appears under computer where you have installed MSMQ services.
- 7. **Restart** your PC.

Installing MSMQ 2.0 Client

Before you start, make sure that you have:

- 1. Installed and configured Windows 2000.
- 2. Made sure that the computer is part of either the Windows NT 4.0 Domain (where the MSMQ 1.0 Server is installed), or the Windows 2000 Domain running ADS (Active Directory Service).

- 3. Installed MSMQ server software on a Windows 2000 domain controller.
- MSMQ 2.0 server software installed on the designated server machine.
- 5. Installed and configured Windows 2000, and that the active directory services are installed and configured.
- Installed the latest Windows service packs and updates following installation.

◆ To install MSMQ 2.0 Client

- Click Start > Settings > Control Panel. The Control Panel window appears.
- 2. Double-click **Add/Remove Programs**. The Add/Remove Programs window appears.
- Click Add/Remove Windows Components. The Windows Components dialog appears.



4. Select **Message Queuing Services**, then click **Next**. The Message Queuing Type dialog appears.

5. Select **Independent Client**, then click **Next**. The Configuring Components dialog appears and begins installing MSMQ.

Note: The software will search for the PEC connected to the network. If the PEC is installed with NT4 OS, you have to manually identify the MSMQ Server

6. Click **Finish** when the installation process is finished.

Verifying MSMQ Client on Windows 2000

After you install MSMQ, you must make sure that you can view the MSMQ server on Windows 2000.

◆ To verify MSMQ Client on Windows 2000

- 1. If MSMQ server software installed on Windows 2000, then Open Active directory sites and services snap-in.
- Make sure that the server where MSMQ server installed is the global catalog for active directory by viewing properties for NTDS services for this server. Open Active directory users and computers snap-in.
- Select View > Advanced.
- 4. Select View > Users and Computers as containers.
- 5. Make sure that MSMQ object appears under computer where you have installed MSMQ services.

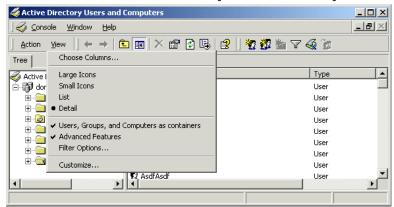
Testing for MSMQ Connectivity

Before you install MSS, check that your network environment can accommodate the software requirements.

Install MSMQ client on the mail server. From MSMQ Explorer (NT 4.0) or active directory (Windows 2000), you must able to view client MSMQ computers. If you can ping the e-mail server from the Domain controller with MSMQ server, then the site is ready for a UM deployment.

♦ To test for MSS Compliance in a Windows 2000 Environment

1. Ensure the view is set accurately in active directory.



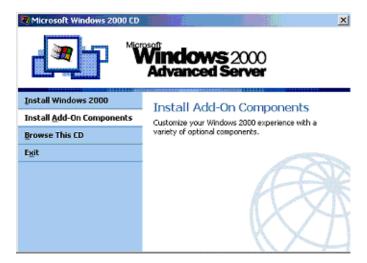
- 2. Make sure that MSMQ is added to the computer object for e-mail & voice server as above.
- 3. Right click on **MSMQ** object under each computer and select properties.
- Click on the MQPing button to ensure you can receive a reply from the MSMQ server. Repeat the process for each computer with MSMQ.

Installing Microsoft IIS5

The following procedure installs Microsoft IIS5 on the 6510 UM Server.

◆ To install Microsoft IIS5

1. Insert the Windows 2000 installation CD into the CD-ROM drive. The Install Add-On Components dialog appears.

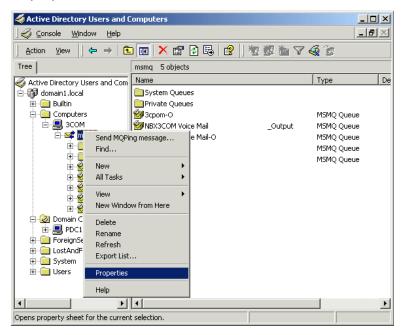


- 2. Select **Install Add-On Components**. The Windows Components Wizard dialog appears.
- 3. Select Internet Information Services (IIS), then click Details to make sure that all components have been selected. The Internet Information Services (IIS) dialog appears.

Note: You do not have to select the RAD option.

- 4. Click **OK**. The Configuring Components dialog appears.
- Click Next to begin the installation. The system begins installing IIS.
- 6. Click **Finish** when installation is complete.

- After you have installed all of the software, run the Windows
 Update program for the latest Service Pack installation. Make sure
 that you re-install Service Pack 2 for Windows 2000.
- 8. Check to see if you can browse the queues. Create a test queue, then use MSQ's Ping utility to test the installation.
- Make sure that MSMQ is added to the computer object for e-mail & voice server as above.
- 10. Right-click on **MSMQ** object under each computer and select properties.



11.Click on the MQPing button to ensure you can receive a reply from the MSMQ server. Repeat the process for each computer with MSMQ.

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Understanding MSS

The Message Synchronization Service (MSS) allows you to synchronize all of your messaging servers with the 6510 UM server, including Lotus Notes, Exchange 5.5 and Exchange 2000.

Using MSS, you can maintain several messaging servers in a synchronized state. The software uses centralized MSS server (MSS Agent) and a set of MSS connectors to connect particular messaging servers to MSS server. In addition, MSS uses MSMQ queues as a transport for information interchange between MSS server and MSS connectors.

MSS can be used with MSMQ version 1.0 (NT 4.0) and MSMQ 2.0 (Windows 2000 only).

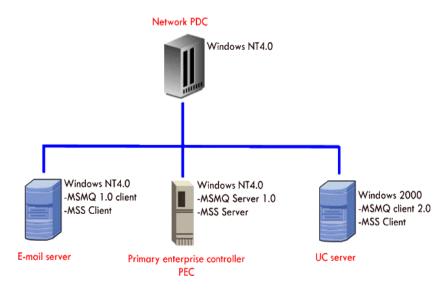
Using a Centralized Queue Server

MSMQ software itself also uses centralized queue server (primary enterprise controller) and set of MSMQ clients (actually there are two types of clients — dependent and independent — but only independent clients can be used with MSS). From the other hand there are several MSMQ servers types (for example, primary site controller or routing server), but these server types are used rarely in cases of complex enterprise infrastructure, so using these server types with MSS is also out of the scope.

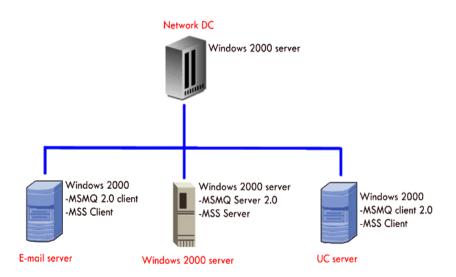
MSS software runs under Windows NT 4.0 and Windows 2000 platform. Due to using MSMQ, it is necessary to install and configure TCP/IP services on each machine that runs MSS software. All machines should be configured to use DNS name resolution.

Typically MSS server and MSMQ primary enterprise controller are executed on the same computer that belongs to some Windows NT domain or acts as a PDC or BDC for the domain. Messaging servers and MSS connectors can be executed on those computers that belong to same domain as the computer that runs MSS server or to any other domain. Each machine that has MSS connector installed should run MSMQ independent client connected to MSMQ primary enterprise controller (see explanation below).

Windows NT network



Windows 2000 network with active directory



Installing the MSS Server

Since the MSS Server is used as the central messaging area for all MSS devices, it must be installed before any of the other connectors.

To install the MSS Server

- 1. The MSS Setup dialog appears.
- 2. Click Next. The License Agreement dialog appears.
- Select I accept the License Agreement, then click Next. The User Information dialog appears.
- 4. In the **Full Name** field, enter the name of the licensee of the product.
- 5. In the **Organization** field, enter the name of the organization that the Licensee works for.
- 6. Select **Anyone who uses this computer**, then click **Next**. The Select Feature dialog appears.
- Select MSS Server, then click Next. The Database Engine dialog appears.
- 8. Select **Codebase**, then click **Next**. The Licensing Component Location dialog appears.
- Select Local machine if your licensing component is installed on a local machine, or Remote machine if it is installed on a remote machine. Click Next. The Start Installation dialog appears.
- 10. Click **Install**. The Installation Wizard begins to install MSS Server software.
- 11. Click **Finish** when the installation is complete.

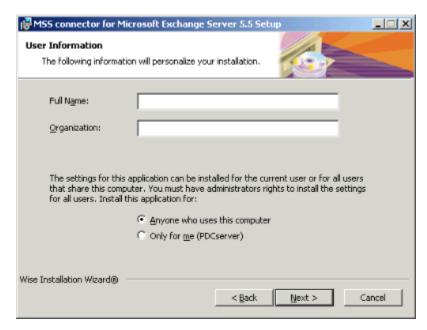
Note: After completing the MSS Server installation, you need to install the appropriate MSS Connectors to enable full integration.

- To install the MSS Connector for Exchange 5.5, proceed to Installing the MSS Connector for Exchange 5.5 on page 41.
- To install the MSS Connector for Exchange 2000, proceed to Installing MSS Connector for Exchange 2000 on page 44.
- To install the MSS Connector for Lotus Notes, proceed to Installing MSS Connector for Lotus Notes on page 47.
- To install the RIM MSS Connector, proceed to Installing the RIM MSS Connector on page 49.

Installing the MSS Connector for Exchange 5.5

The MSS E-mail connector serves as the local server interface to the MSS server.

- ◆ To install the Exchange 5.5 connector
 - 1. The MSS Connector for Microsoft Exchange Server 5.5 Setup screen appears. Click **Next**. The License Agreement dialog appears.
 - 2. Select I accept the License Agreement, then click Next. The User Information dialog appears.



- In the Full Name field, enter the name of the Licensee.
- In the Organization field, enter the name of the organization that the Licensee works for.
- Select **Anyone who uses this computer**, then click **Next**. The Destination Folder dialog appears.
 - In the Destination Folder dialog, select the destination where you
 want to install the MSS Connector 5.5 or click Next to accept the
 default folder. (Recommended). The MSS Connector settings
 dialog appears.



- 4. In the **Service account** field, select the same user that is used to start the Microsoft Exchange 5.5 services on this computer. This is typically the domain administrator's account
- In the Service password field, enter the password for the service account selected above
- 6. In the MSS server field, enter the name of the MSS server computer, then click **Next**. The Start Installation dialog appears.
- Click Next. The Installation Wizard begins to install MSS. When the installation has finished, the Installation Completed dialog appears.
- 8. Click Finish.

Note: You may select to install another Connector, or proceed to Specifying the MSS Service Rights on page 52.

Installing MSS Connector for Exchange 2000

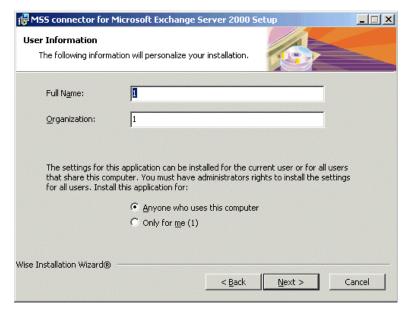
The Exchange 2000 connector serves as the local server interface to the MSS server.

◆ To install the Exchange 2000 Connector

1. The MSS Connector for Microsoft Exchange Server 2000 setup dialog appears.



- 2. Click Next. The License dialog appears.
- 3. Select I accept the License Agreement, then click Next. The User Information dialog appears.



- In the **Full Name** field, enter the name of the Licensee.
- In the Organization field, enter the name of the organization that the Licensee works for.
- Select **Anyone who uses this computer**, then click **Next**. The Destination Folder dialog appears.
 - 4. Click **Next**. The MSS connector settings dialog appears.
 - 5. In the MSS server field, enter the machine name of the MSS server, then click Next. The Service Account dialog appears.



- 6. The **Service Account Name** is pre-determined and cannot be changed.
- 7. In the **Service Account Password** field, you can designate a service account password, or use the default password that is generated.

Note: The Service Account password assigned in this field will be used for both the *User* account and the *Services* account.

- 8. Click **Next**. The Installation will start copying files.
- 9. Click **Finish** when the installation is complete.

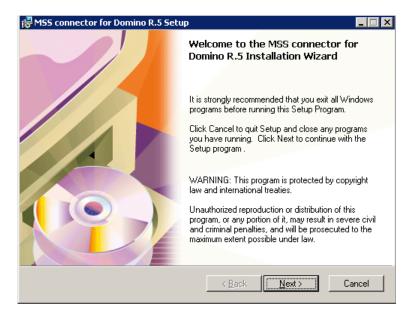
Note: You may select to install another Connector, or proceed to Specifying the MSS Service Rights on page 52.

Installing MSS Connector for Lotus Notes

The Lotus Domino R.5 connector serves as the local server interface to the MSS server.

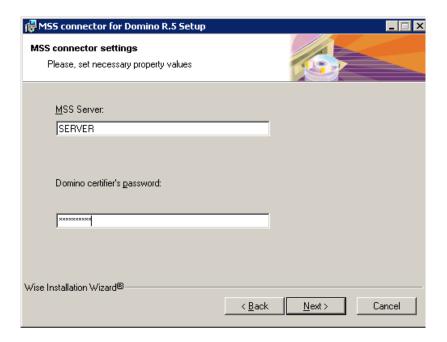
◆ To install the Lotus Notes Connector

1. The MSS Connector for Domino R.5 Setup dialog appears.



- 2. Click **Next**. The License dialog appears.
- 3. Select I accept the License Agreement, then click Next. The User Information dialog appears.
- In the Full Name field, enter the name of the current user.
- In the Organization field, enter the name of the organization that the current user works for.
 - 4. Select **Anyone who uses this computer**, then click **Next**. The Destination Folder dialog appears.
 - 5. Click **Next**. The Destination Folder dialog appears.

 Click Browse to select an installation folder, or click Next to accept the default destination. The MSS connector settings dialog appears.



- In the MSS Server field, enter machine name of the MSS server.
- In the Domino Administrator's password field, enter the administrator's password for the connector to access the Notes accounts, then click Next. The Start Installation dialog appears.
 - 7. Click **Start**. The Installation Wizard begins installing the MSS connector software. When the installation is finished, the Installation Complete dialog appears.
 - 8. Click **Finish**. The Installation Wizard may prompt you to reboot the system (due to rare cases where the setup cannot replace modules because they are locked by other applications). Click **Yes** to reboot your computer or no to continue with the installation.

Note: If you plan to run administration from the same machine that you have installed the MSS Connector, please ensure that you have already installed the Lotus Dominos administration client

on the same machine. If the MSS connector detects a Lotus client installation it will also give you the option to install MSS administrative tools for the Lotus client.

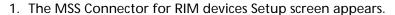
You may select to install another Connector, or proceed to Specifying the MSS Service Rights on page 52.

Installing the RIM MSS Connector

The RIMMSS Connector allows the user to connect their RIM PDA to the synchronization schema.

Note: Before you start, make sure that the PC has MSMQ installed, and that you can ping the MSMQ server on your network.

◆ To install the RIMMSS Connector



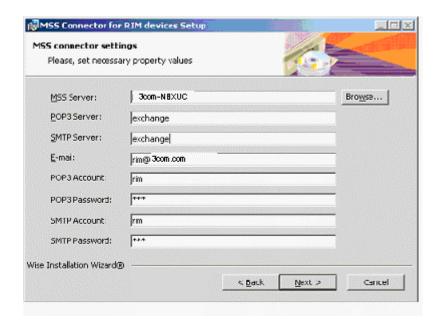


- 2. Click **Next**. The License Agreement dialog appears.
- 3. Read the License Agreement, then click **Next**. The User Information dialog appears.
- In the **Full Name** field, enter the user's name.
- In the **Organization** field, enter the user's organization

- In the **Product ID** fields, enter the Sentinel license number, under the product ID information and select next and install under the default mss folder.
- Select all components to be installed on your computer, then click **Next**.
- Define what PC in your Domain that the MSS Server is installed as well identify the Network PC name for:
- POP3 server (usually the network mail server)
- SMTP Server (usually the network mail server)

Make sure you have already created an e-mail account in your mail server for the RIM connector so you can define the configured profile in the RIM devices setup screen such as:

- RIM e-mail
- RIM POP3 Account name
- RIM POP3 Password
- RIM SMTP Account name
- RIM SMTP Password



4. Click **Next**. The MSS connector settings dialog appears.

The installation commences and configures your server.

Hint: Make sure you have a copy of your Windows 2000 CD available.

- 5. Click **Finish** when the configuration is complete. The message appears, prompting you to restart your computer.
- 6. Click **Yes** to restart your system or **No** to continue without rebooting.

Note: It is recommended that the system is rebooted following the installation.

Specifying the MSS Service Rights

The MSS server handles all interactions with MSMQ. It therefore requires the appropriate service rights to create queues for the synchronization process. The default setting logon is *local system*.

Hint: If there are problems creating queues, you can specify that the service runs in conjunction with the rights of a domain administrator.

- To change the MSS Service Rights
 - Navigate to the Services icon from Start>Programs>Administrative tools>Services.

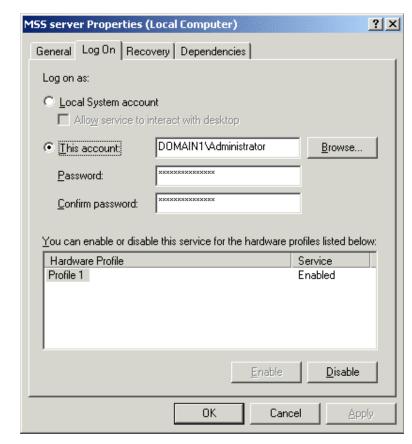
Hint: If you are using Windows 2000 Professional, the Administrative Tools feature is hidden by default. To show the Administrative Tools, you must right-click the Desktop task bar, click Properties and then the Advanced tab. In the Start Menu Settings box, select the Display Administrative Tools checkbox, click Apply and then OK. You can now follow step 1 above and the Administrative Tools option will be available to you.

MSS server Properties (Local Computer) ? X General Log On Recovery Dependencies Service name: **MSAgent** MSS server Display name: Message Synchronization System server Description: Path to executable: C:\MSS\Bin\MSAgent.exe Automatic Startup type: Service status: Started Stop Pause Resume Start You can specify the start parameters that apply when you start the service from here. Start parameters: Cancel

2. Double-click **MSS server service**. The General dialog appears.

3. Click the **Log On** tab. The Log On dialog appears.

0K



4. Select **This account**, then enter the location of the server.

Hint: Click Browse to search for the directory.

5. In the **Password** field, enter the administrator password for the server.

Note: The password must be identical to the user's password in the Active directory.

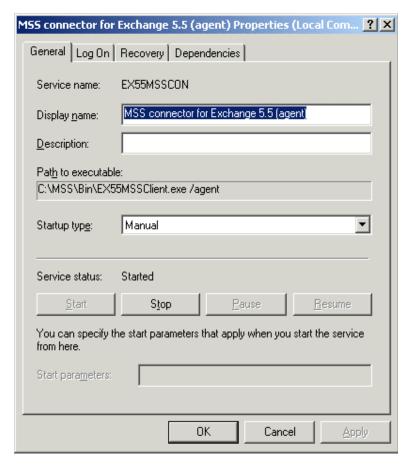
6. In the **Confirm password** field, enter the password again, then click **OK**.

Specifying the MSS Connector Rights (Exchange 5.5)

The MSS Connector handles all interactions with MSMQ. You must specify the appropriate service rights so that the MSS Connector can create and write queues for the synchronization process.

To specify the MSS Connector Rights

- 1. In the control panel, navigate to the Services icon.
- 2. Double-click the **MSS Connector for Exchange 5.5 (Agent)**. The General dialog for the Exchange 5.5 Connector appears.



- 3. Click the **Log On** tab. The Log On dialog appears.
- 4. Select **This account**, then enter the domain administrators account.

Hint: Click Browse to search for the directory.

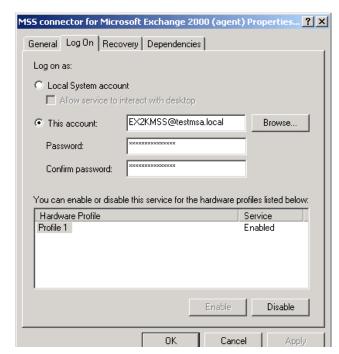
- 5. In the **Password** field, enter the password for the domain administrator.
- 6. In the **Confirm Password** field, enter the password again, then click **OK**.

Specifying the MSS Connector Rights (Exchange 2000)

The MSS Connectors handle all interactions with MSMQ. If you are running into issues with the synchronization of Exchange 2000 with the Server, follow the trouble shooting exercise below. You may requires the appropriate service rights to create and write gueues for the synchronization process.

Note: The default setting logon is: EX2kmss. This user account and its password is automatically created by the MSS exchange 2000 connector during installation. It is used to monitor all the activity on the exchange server and provide events to the MSS server and its synchronization schema.

- **♦** Trouble shooting MSS Service Rights
 - 1. Navigate to the Services icon in the Control Panel.
 - 2. Double-click the MSS Connector for Exchange 2000 (agent). The General dialog for the Exchange 2000 Connector appears.



3. Click the **Log On** tab. The Log On dialog appears.

- Select This account, then enter the full domain name of the user EX2KMSS. For example, if your domain is called ACME specify "ACME\EX2KMSS" or EX2KMSS@ACME.com.
- 5. In the **Password** field, enter the password for this user that was created during installation. To reset the password for this user, go to active directory user and computers setup to reset the "EX2KMSS" user password.
- 6. In the **Confirm password** field, enter the password again, then click **OK**.

Enabling the MSS Voice Mail Connector

You must enable the MSS voice mail connector in order to include the 6510 UM server in the synchronization schema for MSS.

◆ To enable the connector

- 1. Log into the 6510 UM Administration console.
- 2. Click Parameters.
- 3. Click **Edit INI**. The .ini file opens in Notepad.
- 4. Scroll down to the end of the file.

Note: If configuring the .ini file for the first time, you must enter the MSA Settings variables.

5. Enter the following:

```
MSS Server=your server name(example, Mitel_6510UMserver)
MSS Client Name=your client name (example, 6510VM)
MSS Log Filename=path/filename for the log text file
(example, c:\mssclient.txt)
Use MSA=Yes
```

- 6. Save the .ini file and close Notepad.
- 7. In the 6510 UM toolbar, click **Files>Exit**.
- 8. The Shutting Down Services dialog appears.
- 9. Click **Wait For Activity to End**. The system will wait for all ongoing activity to end and then stop the service.
- 10. In the Windows taskbar, click **Start>Programs>6510UM>6510UM**.
- 11. The 6510 UM Welcome dialog appears.
- 12. Click **Start 6510 Unified Messaging**.
- 13.6510 UM has now started and the MSS Voice Mail Connector is now enabled.

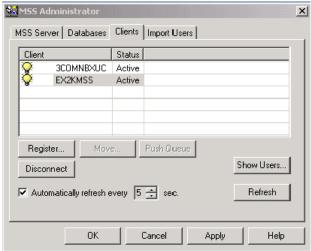
Managing the Synchronization Schema

You can modify and adjust the following MSS Agent and MSS Administrator properties:

- 1. MSS Agent service
- 2. specify another MSS server
- 3. specify logging level
- 4. view or clear log file
- 5. start and stop MSS Agent service
- 6. view and change MSS Agent service minimum resources requirements
- 7. refresh page in case of need
- 8. adjust automatic refresh interval

♦ To view connectors in schema

- 1. Click **Start > Programs > MSS > MSS Admin**. The MSS administrator dialog appears.
- 2. Click OK.



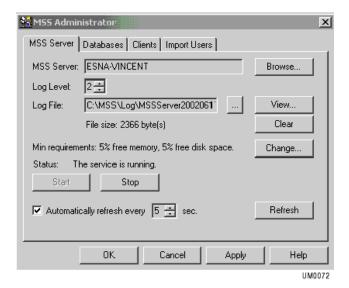
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Selecting the MSS Server

In order to perform administration functions, you must first select an MSS server.

◆ To select an MSS Server

- 1. Double-click the MSS icon on the MSS server machine. The MSS Administrator dialog appears.
- 2. Select the MSS Server tab, then click **Browse** or press **Ctrl+B**. The



Browse for Computer dialog appears.

3. Select the computer where MSS Server is installed from the corresponding list. If no MSS Server is installed on the server selected, a message appears.

Changing the Log Level

The Log Level determines how detailed the activity log will be.

Note: 3 is the most comprehensive, and 0 is the least detailed.

Specifying the Log Level

- 1. From the **Log Level** spin box, select a log level
- 2. Click OK.

Specifying the Log Files

The Log Files contain information on the activity between the MSS server and its connectors.

♦ To specify the Log Files

- 1. In the **Log File** field, enter the path to the log file.
- 2. Click **View** or press **Ctrl + W** to view the log file.
- 3. Click Clear or press Ctrl + C to clear the log file.
- 4. Click OK.

Stopping the MSS Service

You can stop MSS service on a specified server if you need to upgrade the software or perform system maintenance.

♦ To start and stop the MSS Service

- 1. Click **Start** or press **Ctrl+S** to start MSS Service
- 2. Click **Stop** or press **Ctrl+T** to stop MSS Service.
- 3. Click OK.

Changing Memory and Disk Space

The 6510 UM server allows you to optimize system performance by changing memory and disk space requirements.

♦ To change the minimum requirements

 Click Change... or press Ctrl +H. The Minimum Requirements dialog appears.



- 2. From the **Min Free Memory** spin box, change the free memory limits.
- 3. From the **Min Free Disk Space** spin box, change the minimum free disk space, then click **OK**.

Specifying the Refresh Rate

The Refresh rate controls the rate at which the Administrator utility refreshes its display

♦ To specify the refresh rate

- 1. Click **Refresh** or press **Ctrl** + **R**.
- 2. Click **Automatically refresh every 5 sec** if you want the page to refresh automatically.
- 3. From the **Automatically refresh every 5 sec** spin box, change the number of seconds that the screen will be refreshed.

Note: The service must be stopped and restarted in order for these to take affect.

4. Click OK.

Maintaining the Client's Property Page

Clients refer to other mail servers logged into the MSS Service. For example, both Exchange and the Server are clients to the MSS server when they install the client connectors onto their respective servers. Auser can perform the following tasks:

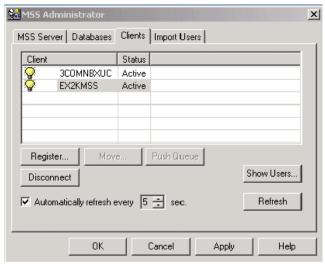
- 1. Manage registered MSS clients
- 2. Register new MSS client
- 3. Unregister existing MSS client
- 4. Disconnect MSS client
- 5. Display information about users of the client selected
- 6. Bind and unbind users on the corresponding MSS client
- 7. Push client message queue in case of need

Registering a New MSS Client

All connectors (for example, Exchange, Lotus, RIMM, and voice mail) are self registering. The following steps are for only advanced users.

◆ To register a new MSS Client

1. Click the **Clients** tab. The Clients dialog appears.



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- 2. Click **Register...**. The **Register Client** dialog appears.
- 3. In the **Client Name** field, enter the user name for the client application in the MSS Schema.
- 4. In the **Computer Name** field, enter the computer name, then click **OK**.

Hint: Click Browse to search for the computer name.

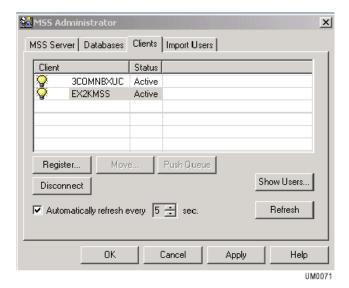
Disconnecting an Existing MSS Client

There are times when you will have to disconnect a client due to stopped service or maintenance. Disconnecting a client will stop the current synchronization without removing the client from the schema. Activity will be queued until the client is again connected.

Note: To view the status of a client, look for the yellow light bulb.

Note: The status must display as "'active."

- **◆** To disconnect MSS Client
 - 1. Click the Clients tab. The Clients dialog appears.



- 2. Click **Disconnect** The Disconnection confirmation dialog appears.
- 3. Click Yes.

Unregistering a MSS Client

Unregistering a client will permanently remove it from the synchronization schema.

♦ To unregister a MSS Client

- 1. Select a client you want to unregister under the clients tab
- 2. Click **Unregister**. The warning dialog will appear.
- 3. Click **Yes** to unregister MSS client selected.

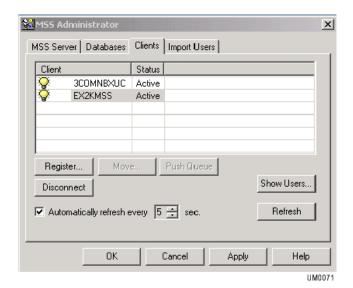
Note: The MSS client needs to be disconnected before unregistering the software.

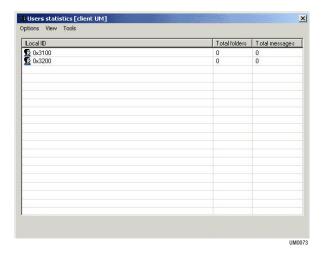
Managing the Client User's Operations

The Clients dialog allows you to view and monitor the status of the MSS connectors.

♦ To manage the client user's operations

- 1. Click the Clients tab. The Clients dialog appears.
- 2. Click **Sho**w Users. The User's statistics screen appears.





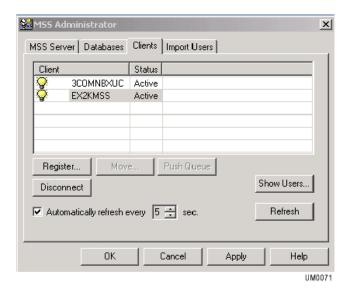
3. You have five options that you can perform.

Action	Operations Required
View users statistics	Select Options, Show Statistics command.
View registered users	Select Options, Show Registered Users command.
View unregistered users	Select Options, Show Unregistered Users command.
Bind selected unregistered user	1. Select Tools > Bind User . The Bind User dialog appears.
	2. Select MSS client from Client Name list, then click Show Users.3. Select user from the users list, then click OK.
Unbind selected registered user	1. Select Tools > Unbind User . The warning dialog will appear.
	2. Click Yes button to unbind selected user.

Pushing MSS Client Message Queue

The 6510 UM server allows you to push a message through a queue manually when an event halts.

- ◆ To force an event through MSMQ.
 - 1. Select the MSS client that will push through message queues.
 - Click Push Queue. It is likely that the event will be lost, and the action or message that it was pertaining to will then be out of synch.



Refreshing the Page

The Refresh rate controls the rate at which the administration interface queries the MSMQ for messages or activity. The quicker the refresh, the higher the load on networking activity. A default of 5 sec is recommended

◆ To specify the refresh rate

- 1. Click Refresh or press Ctrl + R.
- 2. Click **Automatically refresh every 5 sec** if you want the page to refresh automatically.
- 3. From the **Automatically refresh every 5 sec** spin box, change the number of seconds that the screen will be refreshed.

Note: If the service restart is necessary, the corresponding message will appear.

4. Click OK.

Maintaining the Databases Property Page

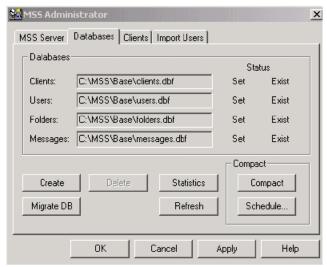
You can manage the MSS system databases by viewing the status and size of the MSS system databases, recreating MSS system databases, compacting system databases, and creating a system databases compacting schedule.

Creating new MSS administration System Database

The MSS system database is used to store all transactions in the MSS Schema.

♦ To create a new MSS system database

1. Click the **Databases** tab. The Databases dialog appears.



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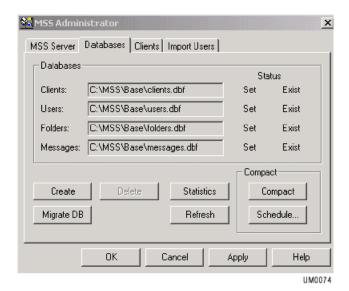
- 2. Click Create or press Ctrl+E. A dialog appears.
- 3. Click Yes to recreate the MSS system databases.

Viewing Database Statistics and Status

The Database dialog allows you to display usage statistics on each database used by the system.

To view system statistics and status

1. Click **Statistics** or press **Ctrl+S**. The statistic information appears. The **Statistics** button changes its caption to **Status**.



Click Status or press Ctrl+S. The statistic information appears. The Status button changes its caption to Statistics.

Compacting the MSS System Database

The 6510 UM server allows you to manually compact data in order to improve performance. This is useful if the database size is large and occupies a lot of storage space.

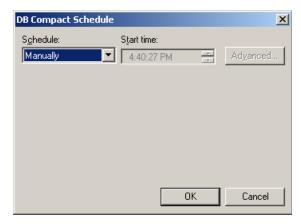
To compact the database, click **Compact** or press **Ctrl+P**.

You can create a schedule that will compact the database automatically. There are three schedule types available: daily, weekly and monthly.

Creating a Daily Compacting Schedule

You can create a schedule that will compact the database daily.

- ◆ To create a daily compacting schedule
 - Click Schedule or press Ctrl+H. The DB Compact Schedule dialog appears.



- 2. From the **Schedule** drop down list, select **Daily**.
- 3. From the **Start Time** spin box, select the time that you want the system to start compacting the database.
- 4. Click **Advanced...** to specify the job start date and end date. The Schedule Daily spin box appears.

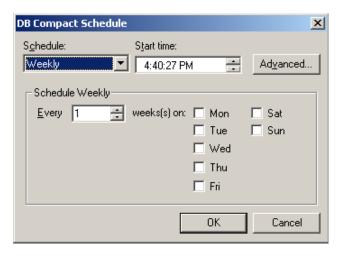


5. From the **Every** spin box, select when you want the system to compact the database, then click **OK**.

Creating a Weekly Schedule

You can create a schedule that will compact the database weekly.

- ♦ To create a weekly compacting schedule
 - 1. From the **Schedule** drop down list, select **Weekly**.

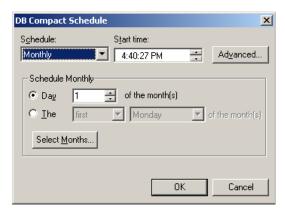


- 2. From the **Start time** spin box, select the time that you want the system to start compacting the database.
- From the Every spin box, select the compacting interval (for example, every 2 weeks).
- 4. Select the days when you want the system to compact the database, then click **OK**.

Creating a Monthly Schedule

You can create a monthly schedule that will compact the database monthly.

- **♦** To create a monthly compacting schedule
 - 1. From the **Schedule** drop down list, select **Monthly**.



- 2. From the **Start time** spin box, select the time that you want the system to start compacting the database.
- 3. Select the variant to specify compacting interval using weeks and days of the week.
- 4. Click **Select Months...** to specify compacting months. The Select Months dialog appears.
- 5. Select the months to compact the database, then click **OK**.

Refreshing the Page

1. To refresh the page click **Refresh** or press **Ctrl+F**.

Specifying the Import Users Property Page

The Users Property dialog allows you to import users to the MSS using specially formatted imported files. You would use this utility if you wanted to propagate all databases centrally through MSS. The import utility supports comma delimited format. This utility would be used in an installation that has a large number of users.

It simplifies the propagation by importing the user list and having MSS bind users on all registered clients. The import tool acts as a migration utility as well. For example:

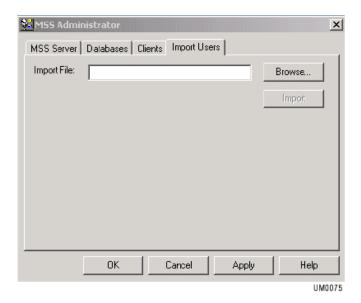
1. Binding existing users on all servers

ClientA, userlocalIDA, ClientB, userlocalIDB

2. Creating new users on all servers

ClientA, userlocalIDA, ClientB

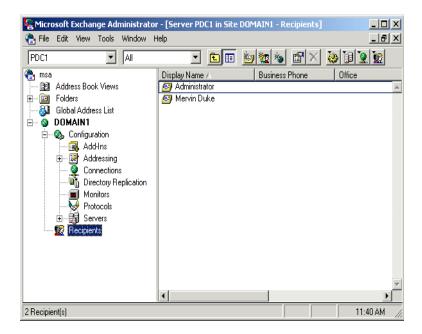
- ♦ To specify the import users property page
 - 1. Click the **Import Users** tab. The Import Users dialog appears.

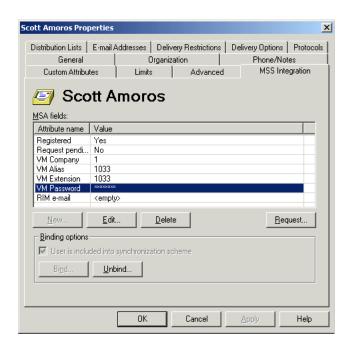


- 2. Click **Browse** or press **Ctrl+R**. The Open dialog appears.
- 3. Select import file, then click **OK**.
- 4. Click **Import** or press **CTRL+I**. Information about import process will be displaying on the page. If any errors occurred during users import, a warning dialog will appear.
- Click Yes on the warning dialog to see information about errors occurred.

Editing Users Through Exchange Administration

To create, edit, or modify a user on the exchange server go to the exchange server and open Exchange Manager in the Exchange group in the programs folder from start button for Exchange 5.5. For Microsoft Exchange 2000 users, edit the users MSS properties right from Active directory. Highlight recipients on the left, and the exchange mailboxes will appear in the right field.





Attribute	Description
Registered	Sets user for MSS
Request Pending	Current status of queued information
VM Company	Assigned company in 6510 UM (multi-tenant systems)
VM Alias	This value will be assigned as the mailbox number
VM Extension	This value will be assigned as the internal phone address.
VM Password	Initial password assigned to the mailbox

- 1. Select New, Edit, or Delete.
- 2. Fill in the valid fields, then click **Save**. These values will be used to set up a new mailbox in the 6510 UM.

Installing MSS Connector Client-Side Extension

Due to the limitations imposed by the Domino Server R5, the Installation of the MSS Connector Client-Side Extension on all systems that run Lotus Notes allows the extension to communicate with the MSS Connector. This communication enables the indicating of read and unread messages, allowing the MSS server to mark read messages.

To install the client-side extension

- 1. Insert CD 1 of the 6510 UM installation CD into the CD-ROM drive
- 2. In the Windows Taskbar, click **Start>Run**. The Run dialog appears.
- 3. In the **Open**: field, enter the drive that your CD-ROM is located in and click **OK**. (For example, enter D:). The CD-ROM drive directory appears.
- 4. Double-click the **MSS** folder. The MSS dialog appears.
- 5. Double-click the **Clients** folder. The Clients dialog appears.
- 6. Double-click the **LN50MSS** folder. the LN50MSS dialog appears.
- 7. Copy the file **LN50MSSExt.exe** to a folder on the computer's hard drive

Note: It is recommended that you copy the file to the folder \Lotus\Notes.

Warning: You must repeat steps 1-7 on ALL computers that are running Lotus Notes.

Configuring the MSS Connector for Lotus Client Extension

MSS Connector for Lotus Client Extension settings can be configured to suit each user's needs. All computers that will be running Lotus Notes must have the client extension application installed. After the client extension application has been installed, it needs to be configured on each computer.

◆ To configure the MSS Connector for Lotus Client Extension

 From the folder where LN50MSSExt.exe is copied to, doubleclick LN50MSSExt.exe. The MSS Connector for Lotus client extension dialog appears.

Note: The recommended folder to copy LN50MSSExt.exe into is \Lotus\Notes.



Hint: If the MSS Connector for Lotus client extension dialog does not appear, double-click the Domino R5 client extension icon in the Windows system tray.

- 2. In the **Password on Domino Server** field, enter the password for your Domino server.
- 3. Click the **Check** button. The Client Extension verifies the password entered. A dialog will appear if the password is incorrect or if the Domino server is unavailable. Check to see if you are using the correct password and verify that your Domino server is available and retry step 2.
- 4. If the password is correct, a dialog appears, verifying the password check as successful. Click **OK**.

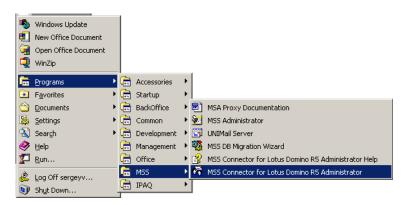
- Select the Automatically refresh read/unread mark states every checkbox if you want the MSS connector to update read/unread marks.
- 6. In the **Minutes** drop-down list, select the interval (in minutes) that the system should wait between automatic updates.
- 7. In the **Seconds** drop-down list, select the interval (in seconds) that the system should wait between automatic updates.
- 8. Click the **Refresh** button if you want to manually update read/unread marks. This button is only enabled if the **Automatically refresh read mark states every** checkbox is *not* selected.
- 9. Select the **Automatically start on Windows startup** checkbox if you want the MSS Connector for Lotus client extension application to start automatically each time Windows starts up.
- 10. When all configurations are complete, click the minimize button to hide the MSS Connector for Lotus client extension dialog. This dialog can be opened at any time by double-clicking in the system tray.

Warning: Do not close the MSS Connector for Lotus client extension dialog. Closing it will disable the application and read/unread marks update will not be performed.

Lotus Domino Settings Configuration

After configuring the main settings in the 6510 UM Administrator, you must open the Lotus Domino R5 Administrator to configure, manage and maintain the MSS connector for Domino R.5. Features include Server Control, Log monitoring, Connector Parameters configuration and Lotus Domino Users settings.

- ◆ To start the MSS connector for Domino R5 Administrator
 - In the Windows toolbar, click Start>Programs>MSS>MSS
 Connector for Lotus Domino R5 Administrator. The MSS Connector Admin for Lotus Notes/Domino dialog appears.

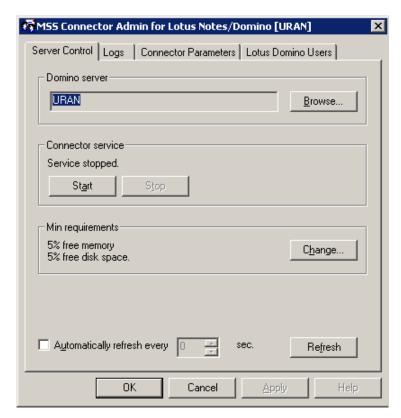


Hint: You can also access the Administrator when in the Lotus Notes or Lotus Administrator applications by selecting Actions>MSS Connector Admin in the toolbar.

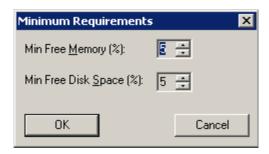


♦ To configure Server Control settings

1. In the Lotus Domino R5 Administrator, click the **Server Control** tab. The Server Control tab appears.



- 2. In the **Domino server** field, enter the Domino server name or click **Browse** to select the server name. This identifies where the MSS connector is installed, so that the MSS connector Admin can connect to it. (For system configurations where the MSS connector is located on a different machine than the MSS connector Admin).
- 3. In the **Connector Service** box, click **Start** to start the Domino Server.
- 4. In the **Minimum Requirements** box, click **Change**. The Minimum Requirements dialog appears.



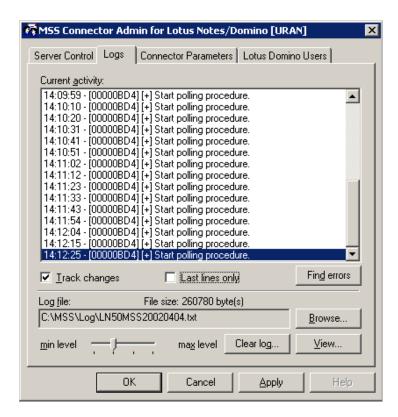
- •In the **Min Free Memory** spinbox, select the minimum free memory that is required for the Domino Server to run.
- •In the **Min Free Disk Space** spinbox, select the minimum free disk space needed for the Domino Server to run.
- 5. Click **OK**. You are returned to the Server Control tab.
- 6. Click the **Automatically refresh every** checkbox to enable automatic refresh, and select the time the system should wait before refreshing in the **sec** spinbox (in seconds).

Note: To manually refresh the service status, you can click the Refresh button.

7. Click **Apply** and **OK** when all configurations are completed.

◆ To configure /monitor log files

 In the Lotus Domino R5 Administrator, click the Logs tab. The Logs tab appears:



- •The **Current Activity** box lists all events written to the the event log.
- 2. Select the **Track Changes** checkbox if you want the system to update activity online.
- 3. Select the **Last Lines Only** checkbox if you want optimum performance while tracking the latest activity. (This function will only list the last 30 events committed).
- 4. Click **Find Errors** to list system errors that are logged in the **Current Activity** box.

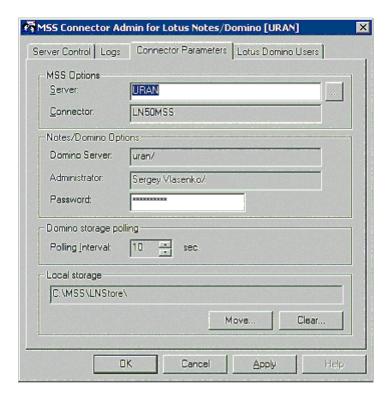
- 5. The **Log File** field displays the current log file being used. To select a different log file to be used by the system, click **Browse** and either select an exisitng log file or specify a new log file name. After this log file is specified, the connector must be restarted in order for it to be used.
- Use the Min Level/Max Level slider to indicate the log level to be used.

None	Only startup/shutdown and critical error messages are committed.
Minimum	Actions from None , as well as the basic information about performed operations are committed.
Medium	Actions from Minimum , as well as extended information about operations and warnings messages are committed.
Maximum	Full trace log of all activities.

- 7. Click **Clear Log** to clear the log file displayed in the Current Activity box.
- 8. Click **View** to open the current log file in an external text editor such as Notepad.
- 9. Click Apply and then OK when all changes have been applied.

◆ To configure MSS connector for Domino R5 settings

 In the Lotus Domino R5 Administrator, click the Connector Parameters tab. The Connector Parameters tab appears.



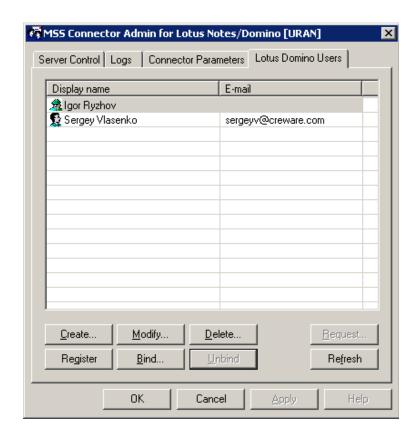
- 2. In the **Server** field, enter the name of the server that you want the MSS connector to synchronize with or click ... to browse and select a server.
- 3. The **Connector** field indicates the MSS Connector you are using.
- 4. The **Domino Server** field indicates the Domino Server name.
- The Administrator field indicates the Domino Server administrator name.
- 6. In the **Password** field, you can enter a new password for the adminstrator.

7. In the **Polling Interval** spinbox, you can select the polling interval to use (in seconds). Polling interval is the value that indicates when the system should re-scan the Domino user databases in order to track change activity.

Note: The lower the value, the faster the interval, resulting in possible slow-down of the Domino R5 Server's performance.

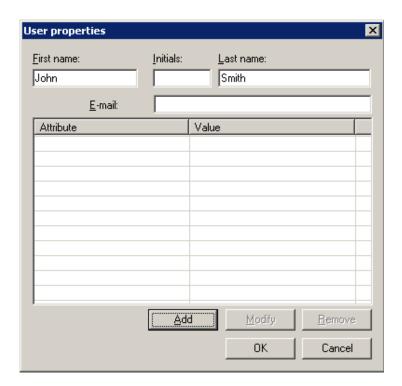
- 8. The **Local Storage** field indicates the directory folder in which the local storage is located. Click **Move** to select a new destination folder or **Clear** to remove the displayed folder.
- 9. Click **Apply** and **OK** when all changes have been made.
- **♦** To manage Domino R5 user settings
 - 1. In the Lotus Domino R5 Administrator, click the **Lotus Domino Users** tab. The Lotus Domino Users tab appears.

The Lotus Domino Users tab displays the names and e-mail addresses of users within the MSS synchronization space. It also allows you to create, modify, delete, register and bind users. Unregistered users are displayed with a "spy" icon.



♦ To create new users

1. In the Lotus Domino Users tab, click **Create** to create a new unregistered user. The User Properties dialog appears.



- 2. In the **First Name** field, enter the user's first name.
- 3. In the **Initials** field, enter the user's initials.
- 4. In the **Last Name** field, enter the user's last name.
- 5. In the **E-mail** field, enter the user's e-mail address.
- 6. Click **Add** to add an attribute to the created user. The Add Attribute dialog appears.



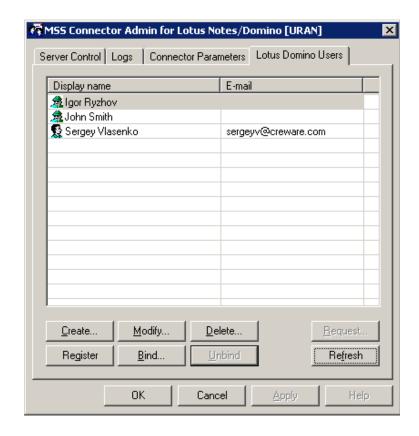
- 7. In the **Attribute Name** drop-down list, select the attribute you want to assign to the user and click **OK**.
- 8. Double-click the added attribute to assign a value to it. The Edit Attribute dialog appears.



- 9. In the **Edit Attribute** field, enter the attribute and click **OK**. The Attribute List will be updated with the new value.
- 10. You can click **Modify** at any time to modify the user attributes and values.
- 11. Click **OK** to save the changes.

♦ To register users

 In the Lotus Domino Users tab, select a user to register and click Register. The "spy" icon beside the user becomes a "user" icon, indicating that the user is now registered.



During the next polling cycle, the MSS connector for Lotus Domino R5 will log the new user registration event and forward this notification to all other MSS connectors.

◆ To bind users

1. In the **Lotus Domino Users** tab, select the unregistered user and click **Bind**. The Bind User dialog appears.



- 2. In the **Client Name** drop-down list, select the MSS connnector that holds the registered user you want to bind the selected user to.
- 3. Click **Show Users**. The Bind User list displays all users registered to the selected MSS connector.
- 4. Select the user you want to bind the unregistered user to and click **OK**. The users are now bound.

Note: To Unbind users, select the user in the Lotus Domino Users tab and click Unbind.

◆ To delete users

 In the Lotus Domino Users tab, select a user and click **Delete**. The User is deleted.

Note: Unregistered users will be deleted only from the Domino R5 server. Registered users will be deleted from all servers that

they are a part of in the message synchronization environment.

Understanding the RIMMSS Connector

The RIMMSS connector for Blackberry devices is not a real MSS connector. It converts SMTP sync messages from the RIM handheld device to the real MSS synchronization messages and vice versa.

Note: The current version of the RIMMSS connector does not support custom folders, folders moving, copying, or deleting.

There are three different scenarios for setting up the RIMMSS connector:

- MSS Server An MSS Server with logged in clients (for example, email, voice mail and RIMSS)
- 2. **RIM Server** A particular computer with RIMMSS connector installed, Usually Voice Server.
- 3. **Server B** A messaging server with MSS connector installed (for example, Microsoft Exchange or Lotus Notes server)

Configuring the RIMMSS Connector

The MSS Connector performs actions to determine the addresses of the unread messages counter. Depending on the version of the RIM operating system you are using, these addresses are assigned different values. 12 libraries have been created to address each of the known sets of RIM operating systems and their corresponding message .dlls.

To ensure that the RIMMSS Connector determines the correct addresses of the unread message counter, you must use the MSSConnector*.dll that matches with the RIM OS and message .dll versions installed on your Blackberry Wireless Device. The table below indicates the correct MSSConnector*.dll to use with each known set of RIM OS and Message .DLL.

Library	RIM OS/Message .DLL version
MSSConnector14570_15000.dll	RIM OS 1.4.57.0/Message .dll 1.5.000
MSSConnector14890_16030.dll	RIM OS 1.4.89.0/Message .dll 1.6.030

Library	RIM OS/Message .DLL version
MSSConnector2013_17000REL.dll	RIM OS 2.0.13/Message .dll 1.7.000 (Release)
MSSConnector2013_17000SDK.dll	RIM OS 2.0.13/Message .dll 1.7.000 (SDK)
MSSConnector2013_20001.dll	RIM OS 2.0.13/Message .dll 2.0.001
MSSConnector2013_20002.dll	RIM OS 2.0.13/Message .dll 2.0.002
MSSConnector2013_20004.dll	RIM OS 2.0.13/Message .dll 2.0.004
MSSConnector2017_20004.dll	RIM OS 2.0.17/Message .dll 2.0.004
MSSConnector2020_20005.dll	RIM OS 2.0.20/Message .dll 2.0.005
MSSConnector2022_20004.dll	RIM OS 2.0.22/Message .dll 2.0.004
MSSConnector2123_21058.dll	RIM OS 2.1.23/Message .dll 2.1.0.58
MSSConnector2123_21219.dll	RIM OS 2.1.23/Message .dll 2.1.2.19

To convert SMTP sync messages from the RIM handheld device to the real MSS synchronization messages, you must configure the RIMMSS connector.

♦ To configure the RIMMSS Connector

- Open the RIMMSS administration application, then click the RIM Service tab.
- 2. Use Browse to specify the name of the RIM server.
- 3. From the Logging options group:
- Click **Select** to specify the log-file.
- Click View to view the contents of the log-file.
- Click Clear to clear the contents of the log file.
- Specify logging level using four-state slider control.
- Place slider to the first (left) position to turn off logging.
- Place slider to the second position to select minimum logging level.
- Place slider to the third position to select average logging level.
- Place slider to the fourth (right) position to select maximum logging level.

- Click the **RIM Service** tab, then select the **Synchronize items in Sent folder** check box to include Sent folder into synchronization scheme if you want to include sent events in the schema from the wireless device.
- Click the **RIM Service Parameters** tab to:
- Specify the name of the MSS Server machine using corresponding ellipses button.
- Specify the RIM connector mailbox on the e-mail server in the **Admin mail-box** field.
- Specify the name of the POP3 server, POP3 account, and POP3 password for the RIM connector in the corresponding fields.
- Specify the name of the SMTP server, SMTP account and SMTP password for the RIM connector in the corresponding fields.
- From the Database polling group, select the RIM connector database's polling interval using **Polling Interval** edit.
- From the SMTP Port Number group, select **Automatic** to use default SMTP port number.
- From the SMTP Port Number group, select **Manual** only if you need to specify SMTP port number using the corresponding field.
- From the Local storage group, click **Move** to move local storage to another location
- Click the RIM Service tab.
- In the **Connector service** group, click **Start**. The RIMMSS connector begins wireless synchronization with configured accounts.
 - 4. In **Exchange**, open up the specific user accounts that have the Blackberry devices, then click on the MSS tab.
 - 5. Select **RIM**, then enter the RIM e-mail address for that specific user.

Configuring the RIMMSS Software

Once you have configured the RIMMSS Connector, you can configure the RIMMSS software. The following user's properties are included in the MSS synchronization scheme:

- 1. First name
- 2. Last name
- 3. Initials
- 4. Alias
- 5. RIM e-mail

All MSS specific properties are also included into the synchronization scheme.

◆ To configure RIMMSS

- 1. Run the RIM Administration utility, then click the **RIM Users** tab.
- 2. Click **Create**. The User Properties window appears.
- Specify the new user attributes, then click **OK**. The new unregistered user will be created in the RIMMSS local storage. A new record with unregistered user icon is created in the user's list.
- 4. Select **new user**, then click **Register** to register user on MSS server.

The following operations occur in the background:

- The RIMMSS connector receives notification about user registration, sets the **Registered** attribute to 1, and forwards it to its outbound queue.
- MSS Server receives notification about user creation and adds information about user to 'USERS' table of MSS system database. Count of records MSS Server adds to 'USERS' table is equal to number of registered MSS connectors.
- One of those records (corresponding to user created on RIMMSS) contains actual information about user's local ID. Information about local IDs of user in other records filled later.
- MSS Server forwards notification about user creation to all other MSS connectors.
- Other MSS connectors receive notification about user creation and creates new user with specified attributes.
- MSS connectors for other messaging servers determine local ID of newly created user and forward it to MSS Server.
- If the specific MSS connector could not create the new user with specified attributes, then the zero local ID forwards to the MSS Server.

- MSS Server receives notification about local ID of user created on server B and stores information about its local ID in 'USERS' table of MSS system database.
- All MSS connector's queues are empty.
- 'USERS' table contains actual local IDs for user on all messaging servers.
- IF the local ID for specific user in the 'USERS' table is equal to zero, then the specific MSS connector was not able to create the new user with specified attributes.
- Values for all attributes (that supposed to be synchronized) of newly created user are equal on every messaging server.

Binding a Wireless User with the 6510 UM and Messaging Server

In order to synchronize information between the Exchange and the messaging servers, you must identify the user to both servers.

◆ To bind a wireless user

- 1. Run the RIM Admin utility, then click the RIM Users tab.
- 2. Select the user, then click **Bind**. The User binding window appears.
- 3. Select the connector where the registered user to be bounded with resides (Messaging Server), then click **Show Users**. A list of users available for binding appears in the **Bind user** dialog.
- 4. Select the user on other MSS connector (Messaging server) for binding.
- 5. Click **OK** in the **User binding** dialog to finish binding users. MSS Server receives notification about the user's binding.

Unbinding a User

If you do not want to synchronize information between the Exchange and the messaging servers, you must unregister the user on the MSS server.

◆ To unbind a user

- 1. Run the RIM Admin utility, then click the **RIM Users** tab.
- 2. Select the user, then click **Unbind**. The RIMMSS connector performs the following operations:
- Sets the **Registered** attribute to zero.
- Changes the user's icon to unbound.
- Sends notification about the user's unbinding to the MSS Server.
- MSS Server receives notification about the unbinding of the user. In the 'USERS' table of the MSS system database, the local ID of the unbound RIMMSS user is set to zero.
- Empties all of the MSS connector queues
- Excludes the unbounded user from sync.

Installing MSS Connector on the Blackberry Device

Installing the handheld-based component of the RIMMSS system does not differ from the installation of the regular RIM application. There are two files included into installation package:

- 1. MSSCONNECTOR.DLL MSSConnector binaries
- 2. MSSCONNECTOR.ALI installation info

These files are installed in the RIMMSS folder on the server that the RIMMSS server was installed on (for example, C:\MSS\BIN\) . For more information, refer to the Client Installation Guide.

Warning: You must use RIM desktop software to install MSSConnector.ALI file. You should specify e-mail of the RIMMSS server only.

Uninstalling the MSS Server and Connector

You can uninstall the MSS Server and/or the various Connectors by using the Add/Remove feature in the Windows Explorer.

Uninstalling the MSS Server

◆ To uninstall the MSS Server

- 1. In Windows, click **Start>Settings>Control Panel**. The Control Panel window appears.
- 2. Click **Add/Remove Programs**. The Add/Remove Programs window appears.
- 3. Select **Message Synchronization System** and click **Remove**. The system prompts you to confirm the deletion.
- 4. Click Yes. The MSS Server is now removed.

Warning: As a precaution, the uninstallation process will not remove all the data from the MSS directory. (Default C:\MSS). To fully uninstall the MSS Server, you must use the Windows Explorer to manually remove the C:\MSS directory.

For system configurations where the MSS Server resides on the same computer as the MSS Connector, be aware that by default, the Connector files are located in C:\MSS\Ex**Store, and manually removing the C:\MSS folder will also remove the Connector data.

Note: It is recommended that the system is rebooted after you uninstall the MSS Server.

Uninstalling MSS Exchange 5.5 Connector

◆ To uninstall the MSS Connector

- 1. In Windows, click **Start>Settings>Control Panel**. The Control Panel window appears.
- 2. Click **Add/Remove Programs**. The Add/Remove Programs window appears.
- 3. Select MSS Connector for Exchange 5.5 Server and click Remove. The system prompts you to confirm the deletion.
- 4. Click **Yes**. The MSS Exchange 5.5. Connector is now removed.

Warning: As a precaution, the uninstallation process will not remove all the data from the MSS Connector directory. (Default C:\MSS\Ex55Store). To fully uninstall the MSS Connector, you must use the Windows Explorer to manually delete the entire C:\MSS\ directory.

For system configurations where the MSS Server resides on the same computer as the MSS Connector, do not delete the entire C:\MSS\ directory. You should only delete the C:\MSS\Ex55Store directory.

Note: It is recommended that the system is rebooted after you uninstall the MSS Exchange 5.5 Connector.

Uninstalling MSS Exchange 2000 Connector

◆ To uninstall the MSS Connector

- In Windows, click Start>Settings>Control Panel. The Control Panel window appears.
- 2. Click **Add/Remove Programs**. The Add/Remove Programs window appears.
- 3. Select MSS Connector for Exchange 2000 Server and click Remove. The system prompts you to confirm the deletion.
- 4. Click **Yes**. The MSS Exchange 2000 Connector is now removed and you are now required to remove the EX2KMSS gateway.
- In the Windows Task Bar, click Start>Administrative Tools>Active
 Directory Sites and Services. The AD Sites and Services dialog
 appears.
- 6. In the Tree tab, click **Services**. EX2KMSS appears in the right window.



- 7. Right-click **EX2KMSS** and select **Delete**. A dialog appears, prompting you to confirm the deletion.
- 8. Click Yes. EX2KMSS is now deleted.

Warning: As a precaution, the uninstallation process will not remove all the data from the MSS Connector directory. (Default C:\MSS\Ex2kStore). To fully uninstall the MSS Connector, you must use the Windows Explorer to manually delete the entire C:\MSS\ directory.

For system configurations where the MSS Server resides on the same computer as the MSS Connector, do not delete the C:\MSS\ directory. You should only delete the C:\MSS\Ex2kStore directory.

Note: It is recommended that you reboot the system after uninstalling the MSS Exchange 2000 Connector.

Uninstalling the Lotus Notes Connector

- ◆ To uninstall the Lotus Notes Connector
 - 1. In Windows, click **Start>Settings>Control Panel**. The Control Panel window appears.
 - 2. Click **Add/Remove Programs**. The Add/Remove Programs window appears.
 - 3. Select MSS connector for Domino R.5 and click Remove. The system prompts you to confirm the deletion.

4. Click **Yes**. The Lotus Notes Connector is now removed.

Warning: As a precaution, the uninstallation process will not remove all the data from the Lotus Notes Connector directory.

(Default C:\MSS\LNStore). To fully uninstall the Lotus Notes Connector, you must use the Windows Explorer to manually delete the C:\MSS\LNStore directory.

Note: It is recommended that the system is rebooted after you uninstall the Lotus Notes Connector.

Uninstalling RIMMSS Connector for Blackberry Wireless Devices

- **♦** To uninstall the MSS Connector
 - 1. In Windows, click **Start>Settings>Control Panel**. The Control Panel window appears.
 - 2. Click **Add/Remove Programs**. The Add/Remove Programs window appears.
 - 3. Select **RIMMSS for RIM Devices** and click **Remove**. The system prompts you to confirm the deletion.
 - 4. Click Yes. The RIMMSS Connector is now removed.

Warning: As a precaution, the uninstallation process will not remove all the data from the RIMMS Connector directory. (Default C:\MSS\RIMStore). To fully uninstall the Lotus Notes Connector, you must use the Windows Explorer to manually delete the C:\MSS\RIMStore directory.

Note: It is recommended that the system is rebooted after you uninstall the RIMMSS Connector.