

DB Mail™ 2.5

Quick-Start Guide

Supported database systems:

Oracle 7.3, 8.0, 8i, 9i, 10g

Microsoft SQL Server 6.5, 7, 2000, 2005

Sybase SQL Server and Sybase Adaptive
Server Enterprise 10.x, 11.x, 12.x

Sybase Adaptive Server Anywhere 6, 7, 8, 9

IBM DB2 UDB 5.x, 6.x, 7.x, 8.x for Unix, Linux and
Windows

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About this guide

This manual is provided as a quick help for setting up DB Mail front-end and back-end environments and is no substitute for the DB Mail User's Guide. For the complete DB Mail description and usage instructions refer to the DB Mail User's Guide which describes all the features of the DB Mail product, including how to install and use the DB Mail graphical user interface and send out electronic communications such as Email, Fax, interruptible Network Popup and Alert messages and Pages using over 150 examples. The described features and how-to instructions apply to all the supported DBMS running on any platform, with sections describing the specifics of particular DBMS.

If you're just getting started with DB Mail and you want a step-by-step guide to getting a DB Mail up and running in short order then you should continue reading this manual.

Intended audience

This document is for Database Administrators, Database Managers, System Administrators and Database Owners.

Conventions used in this document

This section describes the style conventions used in this document.

Italic

An *italic* font is used for filenames, URLs, emphasized text, and the first usage of technical terms.

Monospace

A monospaced font is used for code fragments and data elements.

Bold

A **bold** font is used for important messages, names of options, names of controls and menu items, and keys.

User Input

Keys are rendered in **bold** to stand out from other text. Key combinations that are meant to be typed simultaneously are rendered with "+" sign between the keys, such as:

Ctrl+F

Keys that are meant to be typed in sequence will be separated with commas, for example:

Alt+S, H

This would mean that the user is expected to type the Alt and S keys simultaneously and then to type the H key.

Graphical symbols

 This symbol is used to mark useful tips.

 This symbol is used to indicate important notes.

Abbreviations and product reference terms

DBMS – Database Management System

Oracle – This refers to all supported Oracle® database servers

SQL Server – This refers to all versions of Microsoft® SQL Server™ database servers.

ASE – This refers to all versions of the Sybase® SQL Server™ and Sybase® Adaptive Server® Enterprise database servers.

ASA – This refers to all versions of the Sybase® Adaptive Server® Anywhere database servers.

DB2 – This refers to all versions of the IBM® DB2® database servers.

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How DB Mail works

Implementation

DB Mail is designed as a multi-threaded application that can be configured to simultaneously serve multiple databases servers. It provides a robust messaging gateway that allows internal and external database applications to easily create and send various messages including e-mails, e-faxes, network popup messages, pager and phone messages. DB Mail uses standard database communication network protocols, which allow it to support any Oracle, DB2, Sybase and Microsoft SQL Server database systems running on any platform.

DB Mail runs a separate daemon process for every configured database connection. In case one of the connected databases goes down, it does not stop other daemon processes connected to other databases. Each daemon process checks periodically for messages written to message pipe in the connected database and transfers new message to the central message queue. DB Mail also runs another asynchronous process called Message Queue Processor whose purpose is process messages in the central message queue. The Message Queue Processor verifies message data and delivers messages to the recipients. The actual delivery method varies for different message types.

Notes:

In all databases except Oracle, the DB Mail local message queue is table-based. All messages are written to the DBMAIL.PIPE table from where DB Mail database daemons transfer messages to the central message queue.

In Oracle databases DB Mail utilizes advanced Oracle messaging features based on the system DBMS_PIPE package. All messages are written to the virtual message pipe by calling functions available in DBMS_PIPE package. On the other end of the pipe DB Mail daemons constantly listen for new messages and wake up when new messages are written. From there, the processing is identical to the processing in other database systems.

See the next section for description of the complete message processing workflow.

Message processing workflow

Applications that use asynchronous operations (where more than a single operation can execute simultaneously) often have better availability, reliability, scalability, and usability than applications using only synchronous operations (where operations execute sequentially). DB Mail is designed with the goal of supporting asynchronous message processing, which allows database applications to write messages to a message queue and be immediately freed to serve other user requests.

After messages are written to the message queue, asynchronous DB Mail database daemon processes pick up queued messages and transfer them to the central message queue where messages are processed according to their priorities and timing.

Figure 1 shows the components of a message processing workflow diagram.

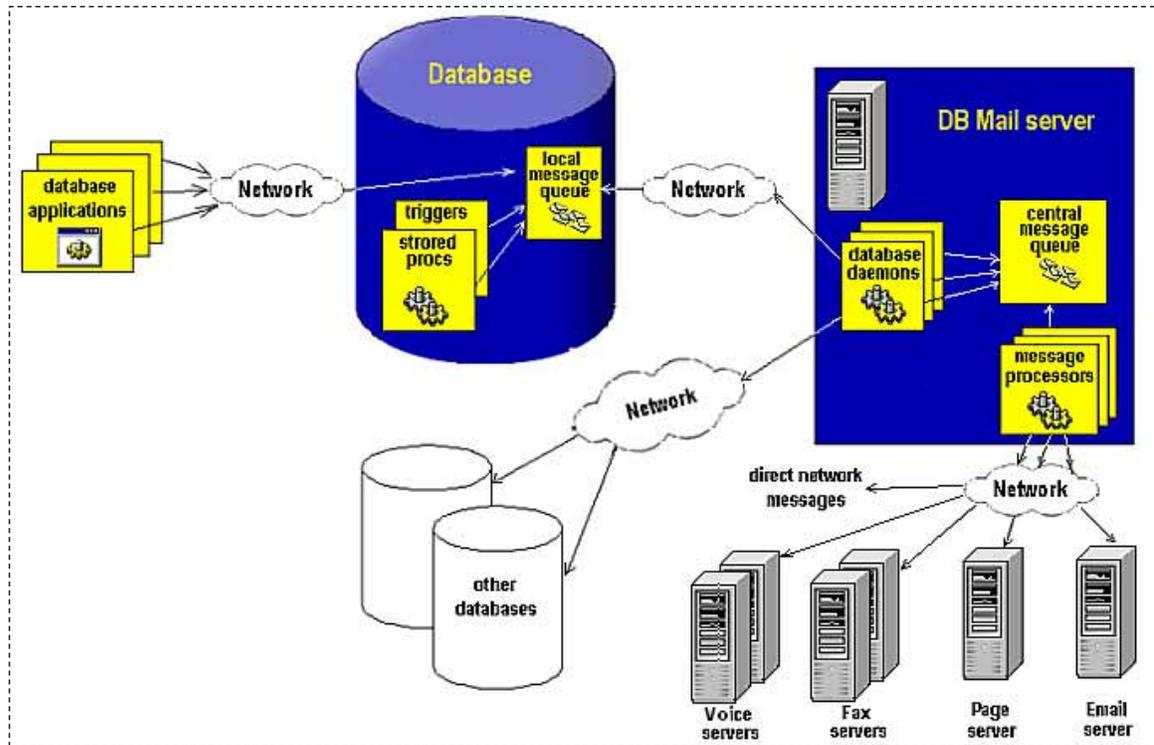


Figure 1: Message processing workflow

The components topics describe message workflow components.

Database applications

There are essentially 3 types of database applications:

- Internal applications that use stored code run entirely within the space of the database server. An example of internal application could be a standalone database stored procedure designed to periodically produce and then email some business report. Such procedures can be scheduled using one of the available database job scheduling methods.
- External applications have their code stored completely outside of the database. An example of such application could be a Visual Basic program (or other type of interactive or automatic program) that is run on a user's workstation. When executing, this program connects to the database, performs some data manipulations and then disconnects from the database.
- Mixed applications have some portions of their code stored and run in the database space while other parts of their code are stored and run outside the database. For example a Visual Basic application described in the previous paragraph could insert new records into an order entry table. The database portion of this application could be implemented as a database trigger for the order entry table, which is executed by the database in the event of new records being inserted into the table. Such trigger can perform some business data validation and email sales managers in case inventory level falls below a certain level. The same trigger could also create customer invoices for the inserted orders and automatically fax them to customers.

Database server

Database management system containing local DB Mail queue and messaging interface procedures.

Local message queue

Database local message queue is used to temporarily store pending messages. In most systems database queue is implemented as a regular database table. Database applications normally write to the message queue using DB Mail interface functions and procedures.

Database daemons

Daemon processes run on the DB Mail server computer. Daemon processors monitor database-side message queues and transfer new messages to the DB Mail server.

Central message queue

Central message queue is the file based message queue where database daemons drop transferred messages.

Message processors

Message Processors are special processes that run on the DB Mail server computer. They are responsible for processing queued messages and delivering messages to specified recipients.

Email server

The email server such as Microsoft Exchange or Lotus Notes is used to send electronic mail. DB Mail server contains internal email client component, which it uses to connect and communicate to your corporate email server and send email messages. The connection and communication method differs for different email systems. DB Mail supports 3 most popular email interfaces: SMTP, Windows MAPI and Lotus Notes. You can use the DB Mail Server Console to choose which interface you want to use for sending email messages. It is recommended to use SMTP email interface whenever SMTP server is available. For more information about supported email interfaces and email options see [Configuring Email Options](#) and [Emailing - sending electronic mail](#) topics.

Page server

Page server is used to send SMS messages and alpha-numeric pages to cell phones and pagers using Simple Network Paging Protocol (SNPP). DB Mail server contains an internal SNPP client component, which is used to send SMS messages. It implements Simple Network Paging Protocol Version 2 as specified in RFC 1861. In order to deliver messages SNPP component connects and communicates to a SNPP server through the Internet. Most telephone service carriers provide SNPP servers to its users free of charge. Contact your cell phone service carrier to find out which SNPP server you can use. For more information about paging interface see [Configuring SMS and Pager Options](#) and [Paging - sending numeric and text messages to pagers and cell phones](#) topics.

Fax server

Fax server is used to transmit electronic faxes. DB Mail server contains internal file-to-FAX converter and fax client components, which are used to print attached files to a Microsoft FAX print driver. The

FAX driver converts files to fax-compatible TIFF images. The resulting TIFF images are then sent to a Windows 2000 or Windows XP computer connected to a fax-modem hooked to a phone line. Because all Windows 2000 and Windows XP computers feature built-in fax server software, any Windows 2000 or Windows XP computer can be used as a fax server. For more information about configuring fax interface see [Configuring Fax Options](#) and [Faxing - sending electronic faxes \(paperless\)](#) topics.

 Note: Fax transmissions are relatively slow operations. DB Mail provides built-in support for fax processing scaling out strategy (scaling out is the strategy that increases the capacity of an infrastructure tier to handle load by adding servers, thereby increasing the aggregate capacity of those servers). DB Mail server can be configured to work with multiple fax servers concurrently in order to increase the overall system throughput. As your fax processing volume grows you can add additional fax servers as needed and configure DB Mail server accordingly.

Voice server

Voice Message Server (VoMS) is used to make phone calls and send sound messages using either pre-recorded sound files, dynamically synthesized voice messages (using text-to-speech functions) or combination of both. DB Mail server contains internal VoMS client, which is used to send sound messages, text-to-speech, and mixed messages to a Windows NT, Windows 2000 or Windows XP computer connected to a standard voice-modem or Intel Dialogic phone board hooked to a phone line. The computer must be also running VoMS server software. A limited edition of VoMS is provided with each DB Mail license. For more information about configuring voice messaging interface see [Configuring Voice Messaging Options](#) and [Voice Messaging- making phone calls and sending voice messages](#) topics.

 Note: Phone calls and voice messaging are relatively slow operations. DB Mail provides built-in support for voice processing scaling out strategy (scaling out is the strategy that increases the capacity of an infrastructure tier to handle load by adding servers, thereby increasing the aggregate capacity of those servers). DB Mail server can be configured to work with multiple voice servers concurrently in order to increase the overall system throughput. As your call processing volume grows you can add additional voice servers as needed and configure DB Mail server accordingly.

Direct network messages

DB Mail currently supports two direct network messaging protocols and methods: sending network popup messages and sending administrative alerts. For more information about these methods and options see the following topics: [Configuring Network Popups and Alerts Options](#), [Network messaging - sending interruptible network popup messages](#), [System alerts - sending interruptible network alerts](#) topics.

Sample Scenarios

On-line order processing application

A web-based Order Processing system accepts user orders and inserts every accepted order into an "order" table stored in the back-end Order Processing database. The INSERT operation fires a database trigger created for the INSERT operation on the "order" table. The trigger generates invoice data in a ready for faxing format and writes a message to the local message queue table. The database returns control back to the web portion of the application which then displays a confirmation message on the user's screen. This entire processing takes only a fraction of a second, as the application does not have to wait for the relatively slow fax operation to complete before getting the workflow control back and displaying the order confirmation.

On the other side of the local DB Mail queue, the asynchronous DB Mail daemon picks up the message and transfers it to the central message queue where it is validated and processed by the DB Mail

message processor. The DB Mail message processor then delivers the message.

Supply chain warehouse application

A Manufacturing system supplies finished goods to warehouses. Requests for finished goods may be fulfilled by the Manufacturer by supplying from internal stock or, if the required quantity is not available, by scheduling a production run. Since there could be a considerable time delay between receiving the order and informing the warehouse of shipment of goods, an asynchronous processing model is used. This allows a warehouse to proceed on other business, and allows the Manufacturer to callback to the Warehouse once the order has been fulfilled. In the event the order has been fulfilled the warehouse application calls DB Mail stored procedure that in turn writes callback message to the message queue.

As before, on the other side of the local DB Mail queue, the asynchronous DB Mail daemon picks up the message and transfers it to the central message queue where it is validated and processed by the DB Mail message processor. The DB Mail message processor then delivers the message.

Database administrative applications

An Oracle administrative application implemented as a database stored procedure runs periodically in an unattended mode on the database server. This procedure checks critical database metrics and invokes an administrative alert whenever a metric falls below certain threshold. Oracle's *DBMS_JOB* package is used to schedule and run the job. In order to send the alert the stored procedure calls the *SEND_ALERT* function from the *DB_MAIL* package. For critical conditions, the procedure also sends a pager message to the seniors DBAs by calling the *SEND_PAGE* function. Both the *SEND_ALERT* and *SEND_PAGE* functions write corresponding messages to the message queue. These messages are then picked up by DB Mail database daemon and get delivered to system administrators as interruptible administrative alerts that are displayed on the administrator's workstations and also as alphanumeric pager messages.

A Microsoft SQL Server application implemented as a database stored procedure runs periodically in an unattended mode in the MASTER database. This procedure checks all databases residing on the SQL Server instance for a LOG FULL condition. If such condition has been detected the procedure calls the *SEND_POPUP_MESSAGE* stored procedure which in turn writes new message to DB Mail message queue. This message is then picked up by DB Mail database daemon and gets broadcasted to all users notifying them that a database become unavailable and user applications accessing that database may become frozen. The message also tells users that their application will resume normal processing after database administrators truncate the filled log.

Appointment-reminder application

An automated application running every morning in a healthcare provider office checks in the local database for appointments scheduled on the same day. For every found appointment it then retrieves patient's name and phone number. It then calls DB Mail's *SEND_VOICE* function from the *DB_MAIL* package in order to send a pre-recorded message reminding the patient about the appointment time. The actual appointment time is pronounced using a computer generated voice. This entire processing takes only a few seconds, as the application does not have to wait for the relatively slow phone dialing operation to complete before getting the workflow control back.

On the other side of the local DB Mail queue, the asynchronous DB Mail daemon picks up all submitted messages and transfers them to the central message queue where they are validated and processed by the DB Mail message processor. The DB Mail message processor then communicates to the configured VoMS server which delivers the submitted messages to all patients.

Supported messaging methods and protocols.

Emailing - sending electronic mail

DB Mail supports several email protocols and interfaces, including:

- Windows Messaging Application Interface (MAPI)
- Simple Mail Transfer Protocol (SMTP)
- Lotus Notes (HTAPI)

All supported protocols allow sending plain text messages with and without attachments. In addition, DB Mail's SMTP protocol implementation supports sending rich-text format messages, HTML messages and XML messages. Such message formats provide greater control over email message appearance. They can also include in-line images, tables, formats and other graphical elements. The SMTP interface is also more robust and should be used whenever possible.

SMTP email interface does not require any additional software for sending email messages. You simply need to configure DB Mail to properly locate and authenticate to your SMTP email server.

MAPI email interface requires email client software such as Microsoft Outlook, Eudora, or Netscape Messenger installed on the computer running DB Mail Server. You do not need to have the email client program running in order to send email messages. The email client software just needs to be properly installed and configured.

Lotus Notes interface is mostly supported for legacy applications. Please use SMTP protocol if you are running Lotus Notes or Lotus Domino version 5 or later. In order to use Lotus Notes email interface Lotus Notes client software must be installed on the computer running DB Mail Server. You do not need to have the Lotus Notes client running in order to send email messages. The client software just needs to be properly installed and configured.

Tips:

Up to 255 external files or contents of database BLOB (Binary Large Object) columns can be attached to a single email message.

A single email message generated and sent via DB Mail can have multiple recipients specified in the *recipients* parameters of the *SEND_MAIL* function. DB Mail will automatically route such messages to all specified recipients.

A call to the *SEND_MAIL* function can be inserted in a regular SELECT statement with table columns or expressions specified for the function arguments. The database engine will invoke the *SEND_MAIL* function with different parameters as many times as the number of rows in the result set. See *CHAPTER 6, Sending email messages* in DB Mail User's Guide for examples on using the *SEND_MAIL* function.

DB Mail SMTP interface supports different message content types such as *text/plain*, *text/html*, *text/xml*, etc.

Paging - sending numeric and text messages to pagers and cell phones (SMS)

DB Mail uses Simple Network Paging Protocol (SNPP) to send numeric and alphanumeric SMS messages through the Internet. DB Mail implements Simple Network Paging Protocol Version 2 as specified in RFC 1861. In the case of a numeric message the number of digits received by the recipients is usually limited to 8 to 12. In the case of an alphanumeric message, the number of characters received depends on the phone service carrier and is usually limited to 250 characters. Keeping your message short and concise helps to ensure that the recipient gets the most out of your

message.

In order to allow sending numeric and text messages you need to configure DB Mail so it can locate and authenticate to your SNPP email server. Contact your mobile pager/cell phone carrier or your local phone company to find out your SNPP server address.

Network messaging - sending interruptible network popup messages

Windows network messaging allows sending arbitrary messages to a registered message alias such as network computer name or user name. The message appears on the destination computer as an interruptible popup message box. The user is required to click the OK button displayed on the message box in order to close the message and continue working. Because the size of the message box is somewhat limited to the computer screen, brief network messages are usually used to send important notifications or alerts.

DB Mail uses NetMessage protocol supported on Windows NT/2000/XP/2003 systems. Users running Windows 95/98/Me systems are unable to receive network messages.

 **Important Note:** The *Messenger* service must be running on your computer if you want to receive network messages. By default *Messenger* service is installed and turned on all NT/2000/XP/2003 systems. If the service is not running use Services applet in Windows Control Panel to change service start type to *Automatic* and start that service.

System alerts - sending interruptible network alerts

Sending interruptible system alerts is similar to sending network popup messages described in the previous topic. The only real difference is that network popup messages are sent to named recipients while administrative alerts are sent to a group of alert subscribers, which usually includes network administrators and other technical personal. Obviously the second method is more appropriate for sending administrative messages.

DB Mail alert functions rely on Windows NT LAN Manager protocol and more specifically on Windows NT *Alerter* service available on NT/2000/XP/2003 systems. Users running Windows 95/98/Me systems are unable to receive administrative alerts.

 **Important Note:** The *Alerter* service must be running if you want to send administrative alerts when something goes wrong on the server. The *Alerter* service also requires the *Messenger* service to be running.

Faxing - sending electronic faxes (paperless)

DB Mail supports sending outbound electronic faxes. DB Mail uses Microsoft Windows ® Fax API available in Windows 2000 and later to create and transmit faxes. Below is the description of this processing workflow.

You use DB Mail stored procedures in your database to dynamically create text, HTML or XML documents and save them in the DB Mail queue table or as external files. DB Mail then opens each document and converts it to a FAX-compatible TIFF image. After this conversion takes place, a cover page is optionally added and the fax is handed off to the digital modem. The modem dials the recipient fax telephone number, listens for a fax signal, and sends the fax to the recipient's fax machine. After

the fax has been sent successfully, DB Mail optionally sends a confirmation to the sender via e-mail. If the fax transmission fails after three or more attempts, a failure notification is optionally sent to the sender via e-mail. This failure notification indicates whether the fax failed because of a busy signal, no answer, or the telephone number dialed was not a fax number.

The actual modem and fax transmission can be performed on the computer running DB Mail Server or any other Windows 2000 or later computer connected to the same network and featuring internal or external Class II digital fax-modem. Multi-modem digital adapters can be also used for high performance fax processing. Such multi-modem adapters are capable of sending several fax messages simultaneously.

 **Tip:** DB Mail implements advanced message queuing which allows true high-performance asynchronous database processing, as the performance is not affected by the performance of the fax processing. Database applications simply call DB Mail interface functions that quickly write messages to the message queue and immediately free applications making it unnecessary for the applications to wait for the slower fax processing.

Voice Messaging - making phone calls and sending voice messages

DB Mail supports sending pre-recorded and dynamically generated voice messages using advanced text-to-speech technologies. For dynamic text-to-speech messages DB Mail uses Microsoft Windows ® Speech API available in Windows 2000 and later to generate dynamic sound files. It then uses the VoMS (SoftTree Technologies' Voice Message Server™) software to deliver the messages over a regular phone line as an automated phone call. Below is the description of this processing workflow.

You use DB Mail stored procedures in your database to send voice messages. Messages can contain references to pre-recorded sound files or simply contain text that you want to say upon successful phone call. Messages can be also assembled from multiple parts containing both sound files and text segments. For every sent message DB Mail message queue processor picks up the message description, voice and text parts and submits them to the VoMS server that can be running on the same or different computer on your network. The VoMS server in turn converts all text segments to intermediate sound files and merges all referenced sound files into one single message. The resulting message is then handed off to the VoMS message processing engine that uses either a local modem or Intel Dialogic board to dial the recipient's phone number, listen for a human voice answer, and then speak the message. If the processing fails, for example, there is no modem or phone line available or answering human voice has not been detected after three or more attempts, a failure notification is optionally sent to the message sender via e-mail. This failure notification indicates whether the phone call failed because of a busy signal, no answer, call hang-up before completion, or the dialed number is not in service.

The actual phone call can be made from the computer running DB Mail Server or any other Windows 2000 or later computer connected to the same network and running VoMS software. The computer must have internal or external voice modem or Intel Dialog board.

 **Tip:** DB Mail implements advanced message queuing which allows true high-performance asynchronous database processing, as the performance is not affected by the performance of the voice call processing. Database applications simply call DB Mail interface functions that quickly write messages to the message queue and immediately free applications making it unnecessary for the applications to wait for the slower voice call processing.

Supported database systems and options

DB Mail supports a number of widely used database management systems (DBMS). Among them are Oracle 7, Oracle 8/i, Oracle 9 database servers, IBM DB2 database server version 6.1 and later,

Microsoft SQL Servers version 6.5 and later, Sybase SQL Server and Adaptive Server Enterprise (ASE) versions 10.0 and later, Sybase Adaptive Server Anywhere version 6.0 and later.

These DBMS can be installed and running on a variety of systems including but not limited to UNIX, Linux, Netware, OS2, OS390, OS400, Windows NT/2000/XP. DB Mail can work with all of them provided a database connection can be made from DB Mail server computer to a database server. A single DB Mail server can be configured to connect to and process messages from multiple heterogeneous database systems simultaneously.

Database Connectivity Requirements

DB Mail supports two database connection methods – connections using standard ODBC interface and connections using native database drivers. DB Mail software is shipped with native database drivers for Oracle OCI, Sybase CT-Lib and Microsoft SQL Server DB-Lib.

The following table describes supported database interfaces and connection methods.

DBMS Name	Oracle	Microsoft SQL Server	IBM DB2	Sybase SQL Server, Sybase ASE; Sybase ASA
Connection Method				
ODBC	X	X	X	X
Native database drivers	X ¹	X ²		X ³

X¹ – Oracle native driver connection requires Oracle client software installed on DB Mail computer. DB Mail native drivers for Oracle can work with Oracle SQL*Net v2, Net8 and later. Oracle OCI must be installed as a part of the client.

 **Tip:** You can verify Oracle client installation using Oracle SQL*Plus utility. As long as you can connect from SQL*Plus you should be able to connect from DB Mail.

X² – Microsoft SQL Server native driver connection requires SQL Server client software installed on DB Mail computer. The client software must include DB-Lib files.

 **Tip:** You can verify SQL Server client installation using Microsoft ISQL utility or Query Analyzer (available in SQL Server 7 and later). As long as you can connect from these utilities you should be able to connect from DB Mail.

X³ - Sybase SQL Server, ASE and ASA native driver connection requires Sybase client software installed on DB Mail computer. The client software must include CT-Lib files.

 **Tip:** You can verify Sybase client installation using Sybase ISQL utility. As long as you can connect from ISQL you should be able to connect from DB Mail.

Connecting to your database

DB Mail can connect to a database using either an ODBC interface or a native database driver. DB Mail software includes native database drivers for Oracle 7, 8, 9 and 10, Sybase SQL Server and Adaptive Server Enterprise, and Microsoft SQL Server. DB Mail currently does not include native drivers for DB2 connections. You must use an ODBC connection to connect to DB2 database systems. ODBC drivers for DB2 and ASA are available from IBM, Sybase and other vendors.

Connection methods and requirements

Figure 2 illustrates required components for different database connection methods.

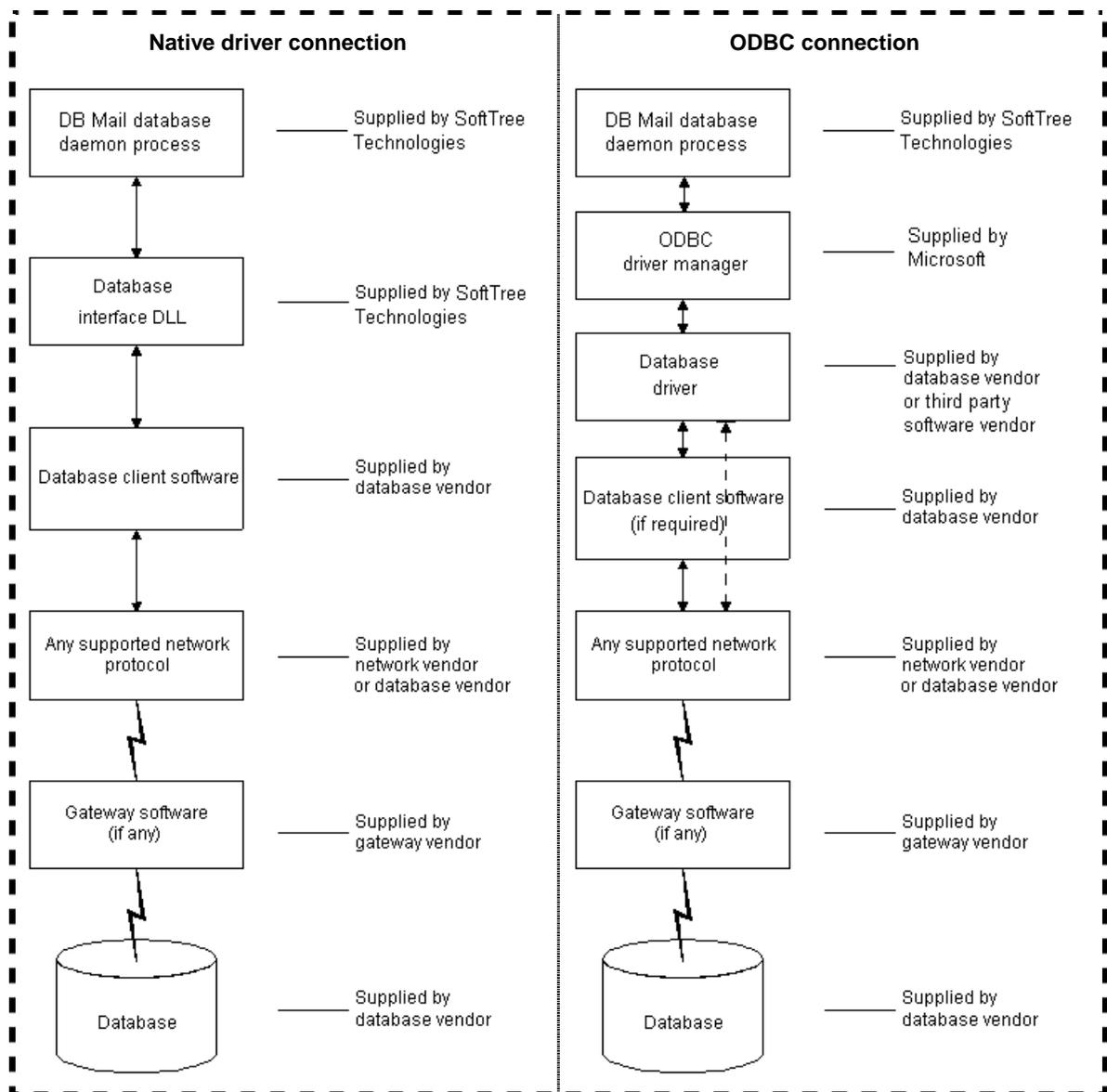


Figure 1: Connection methods diagram

Preparing to use your database

Preparing the database ensures that you will be able to access and use your data. The requirements differ for each database but, in general, preparing a database involves the following steps:

1. If network software is required, make sure it is properly installed and configured at your site and on the client machine.
2. Make sure the required database server software is properly installed and configured.
3. Make sure the required database client software is properly installed and configured on the DB Mail computer. (Typically, DB Mail is installed on a Windows NT workstation or server)



Important Note: You must install the appropriate client software for your database server and operating system platform before you can connect to the database. See your database vendor for specific information on where to obtain and how to install the client software.

Installing the ODBC driver or native database driver

To connect DB Mail to your database, you must install the ODBC driver or native database driver that accesses the database. Select the desired driver or database interface when prompted by the Setup program.

Defining the ODBC data source

Data that you access through an ODBC driver is referred to as an ODBC data source. An ODBC data source consists of the data and associated DBMS or file manager, operating system, and (if present) network software. When you define an ODBC data source, you provide information about the data source that the driver needs for the connection. Defining an ODBC data source is also referred to as configuring the data source. You can use the standard Windows ODBC Manager software to create and modify ODBC data sources. To start the ODBC Manager you will need to do the following:

From Windows Control Panel

1. Click the Windows **Start** button.
2. Select **Settings** menu, then select **Control Panel**. The Control Panel window will appear.
3. Double-click the **Administrative Tools** icon.
4. Double-click the **Data Sources (ODBC)** icon.

Completing the ODBC setup dialog box

Define an ODBC data source by completing the ODBC setup dialog box for the ODBC driver you have previously selected to access the data source. The content and layout of the ODBC setup dialog box

will vary for each driver, but most ODBC setup dialog boxes require you to supply the following information:

- Data source name and location,
- Data source description (optional),
- Other DBMS-specific connection parameters.

After you have created a data source, you can use it in the database profile that you create in the Database Profile option. Refer to the [Database Profiles](#) topic for details.

Troubleshooting the database connection

DB Mail supports two methods for tracing database connections in order to troubleshoot problems:

- **Database Trace** - The Database Trace tool records the internal commands that DB Mail executes while communicating with a database. Database Trace writes its output into a text file named PBTRACE.LOG, which is created in the Windows home directory. You can view the contents of the log file using any text editor. To enable database tracing, type "TRACE " (without quotes) in front of the chosen driver name in the [Configuring Databases Options](#).
- **ODBC Driver Manager Trace** - The ODBC Driver Manager Trace tool records information about the ODBC API calls made by DB Mail while connected to an ODBC data source. The ODBC Driver Manager Trace writes its output into a file named SQL.LOG (by default) located in the Windows home directory or to a log file that you specify. You can view the ODBC Driver Manager Trace log at any time by using any text editor.

Database Profiles

DB Mail uses database profiles as a way to simplify database connections and to provide naming methods. A **database profile** is a named set of parameters stored in the system registry under the DB Mail key. The profile data contains both the connection parameters for a particular database system and DB Mail configuration parameters related to that system, for example database server name, database user name and so on. Database profiles can be configured using the methods described in the later section titled **Configuring Database Options**.

What you need to install

This topic describes what you need to install in order to use DB Mail functions. Once the front-end software installation is complete, DB Mail objects should be installed on the Database side. This is explained in later sections.

Installing DB Mail is a relatively simple task, provided the system requirements are met. We will look at some of the details of performing the installation in this topic.

What you should have already installed

1. **DATABASE SYSTEMS:** At least one of the database systems described in the [Supported database systems and options](#) topic must be installed on your network.
2. **IN ORDER TO USE EMAIL FUNCTIONS IN YOUR DATABASE OR DATABASE-CONNECTED APPLICATIONS:** An email server must be installed must be installed on your network. DB Mail can work with virtually all modern email servers.
3. **IN ORDER TO USE SMS AND PAGING FUNCTIONS IN YOUR DATABASE OR DATABASE-CONNECTED APPLICATIONS:** Your phone carrier must support SNPP protocol and provide a SNPP server accessible from your network.
4. **IN ORDER TO USE NETWORK POPUP MESSAGE AND ADMINISTRATIVE ALERT FUNCTIONS IN YOUR DATABASE OR DATABASE-CONNECTED APPLICATIONS:** Standard Windows Messenger service must enabled with Auto-start option and running on user computers who will receive DB Mail generated messages.
5. **IN ORDER TO USE FAX FUNCTIONS IN YOUR DATABASE OR DATABASE-CONNECTED APPLICATIONS:** Windows 2000, XP or 2003 computer (server or workstation) must be available on your network and connected to internal or external class II fax-modem (most modern modems support fax sending functions, however you must check your modem documentation to ensure the required compatibility). Standard Windows Fax service must enabled with Auto-start option and running on that computer.
6. **IN ORDER TO USE PHONE/VOICE MESSAGING FUNCTIONS IN YOUR DATABASE OR DATABASE-CONNECTED APPLICATIONS:** Windows 98 or better computer (server or workstation) must be available on your network and connected to internal or external class II voice modem supporting voice functions (most modern modems support voice-messaging functions, however you must check your modem documentation to ensure the required compatibility). Alternatively, the mentioned computer might use Intel Dialog board.

Front-end Installation

DB Mail Server installation

The DB Mail Setup program provides a straightforward interface for DB Mail Server installation.

1. Run DB Mail Setup program.
2. When prompted what you want to install choose DB Mail Server option and then simply follow the Setup Wizard that will guide you through the entire installation process. When installing on

a Windows NT environment, you should be logged on using an account that is a member of the local Administrators group before you install the program.

3. If you are installing DB Mail on a trial basis, leave the DB Mail License Key field blank when prompted. This will provide you a temporary license for a 30-day trial period.
4. By default, the Setup will install the DB Mail Server shortcut in the Startup folder. In case you are using NT 4.0 and above, you may always skip this step and install DB Mail as a Service. Refer to the *APPENDIX B, Running DB Mail as a Windows NT service* topic in the DB Mail User's Guide for instructions on how to install DB Mail service.

Tips:

- If you have a previous version of DB Mail installed on your system (version 2.0 or 2.1), the installation of DB Mail 2.5 will upgrade your previous installation. Run the Database Setup Wizard after the installation to install/upgrade DB Mail database side objects.
- If you have DB Mail version 1.0 installed on your system, installation of DB Mail 2.5 will NOT override your previous installation. It is advisable to de-install the previous version using the de-installation procedure for the previous version. You should also de-install the DB Mail Database side objects from databases where it was previously installed.
- At the end of the software installation to disk, you will be prompted to start the DB Mail database setup. You will need to be prepared with the appropriate Database administrator account and password as well as the connection details for the required Database(s). The Database setup will need to be performed on every database that you intend to send Email messages from using DB Mail. If you chose not to install the Database Setup at this time, or you need to install the Database side objects on other databases, you can invoke the 'Database Setup' program from the DB Mail 2 program group at a later time.
- If you are going to use the ODBC interface, configure desired data sources using the ODBC Administrator found in the Windows Control Panel. See the following sections for details.

**Important notes:**

During software installation of DB Mail, you will be asked to install the database side objects. If you choose not to install these objects at that time, you may do so later using DB Mail Database Setup utility. For more information on database side installation refer to the [Back-end Installation](#) topic.

VoMS installation

VoMS software installation is only required if you are planning to use DB Mail Voice Messaging functions. In that case you must install VoMS server software on any Windows 98 or better computer on your network featuring a sound board and either internal or external voice modem or an Intel Dialogic phone board. This could be the same computer that is running the DB Mail Server or any other computer on your network.

The DB Mail Setup program provides a straightforward interface for VoMS installation. When prompted what you want to install choose Voice Messaging Services option and then simply follow the Setup Wizard that will guide you through the entire installation process. When installing on a Windows NT environment, you should be logged on using an account that is a member of the local Administrators group before you install the program.

Please note the following points with regard to the installation:

- Keep the License Key supplied by Soft Tree Technologies handy. This will need to be entered during the installation.

- If you are installing VoMS on a trial basis, leave the Voice Message Server License Key field blank when prompted. This will provide you a temporary license for a 30-day trial period. The License can then be purchased from Soft Tree Technologies and entered in later.
- By default, the Setup will place VoMS server shortcut into the Startup folder.
- At the end of the software installation to disk, you will be prompted to start the VoMS server and use the VoMS Administrator utility to configure modem connection settings and other voice messaging properties. If you chose not to configure Voice Messaging Services at this time, you can invoke the 'Administrative Console' shortcut from the DB Mail 2 \ Voice Message Server program group at a later time.

**Important notes:**

By default VoMS server is installed without a password meaning that anyone on your network who has VoMS Administrator utility installed cannot connect to the VoMS server. It is highly recommended that immediately after the installation you use the VoMS Administrator utility to set a password for all administrative connections. If you choose to set a password, click the **Password** button available on the **Users** screen. Enter new password and press the OK button to save it. The password will be stored in encrypted format in the system registry and all consecutive connections to the VoMS server will require the same password entered on the VoMS Administrator connection dialog.

Back-end Installation

Requirements

DB Mail requires DB Mail database objects to be created in every database from where you want to send email, fax and other electronic messages. To install and uninstall these objects as well as manage user access to various DB Mail features you can use DB Mail Database Setup Wizard. The wizard can be started using any of the following methods:

- Run DB Mail installation Program and choose Database Setup option.
or
- From DB Mail Server menu select File/Install Database Objects
or
- From DOS command prompt, change current directory to DB Mail home directory and then run `DB_MAIL /SETUP` command.

This will start DB Mail Database Setup Wizard, which will guide you through the installation process.



The following sections describe what needs to be installed on different database systems.

Oracle

The main objects include the DB_MAIL package, the MAILSTORE directory object (for Oracle 8i and above) as well as a table and a sequence for supporting attachments to email messages and electronic faxes. These objects need to be installed in all the databases, regardless of version, that users want to send mail from.

DB_MAIL is implemented as the one single PL/SQL package that encapsulates all of the messaging calls. This package is installed in the SYSTEM schema and a public synonym with the same name is created so that users can call DB_MAIL package functions without directly referring to the SYSTEM schema.

To install DB Mail database objects in an Oracle database perform the following steps:

1. Start DB Mail Database Setup utility.
2. Choose **Oracle 7.3, 8.x, 9.x, and later** option and then click the **Next** button.
3. Enter valid password for the SYS user into the **Password** field.
4. Select valid Oracle TNS name from the **Host String** drop-down list. If you cannot find an existing name in the list simply type in a valid TNS entry name then click the **Next** button. When installing DB Mail on a local Oracle instance you can leave the **Host String** field blank.
5. (Oracle8i and later only) Type in name of an existing directory where DB Mail can create temporary files for email attachments and electronic faxes. If you Oracle database is already configured for external file access you can enter name of one of the directories listed in UTL_FILE_DIR initialization parameter. If you do not have UTL_FILE_DIR parameter configured yet you will need to add that parameter to your Oracle parameters file.

**Important notes:**

After you modify your Oracle parameter file, you will need to stop and then restart your database instance in order for the changes to take effect. Failure to do so will prevent DB Mail from supporting email attachments and electronic faxes.

6. Click the **Finish** button. DB Mail Database Setup will run installation scripts compatible with your Oracle database version.

Access Privileges

Because DB_MAIL package may call functions in DBMS_PIPE, UTL_FILE and DBMS_BACKUP_RESTORE (Oracle 9i and later only) packages, the SYSTEM user needs EXECUTE privilege on these system packages.

A user (other than SYSTEM) who needs to send messages from within the database also needs access to the DB_MAIL package. Unless you want to restrict the privilege of sending messages from within the database to specific individuals, you should grant PUBLIC access to EXECUTE the DB_MAIL package and SELECT/INSERT/UPDATE/DELETE privilege to PUBLIC on the MAIL_ATTACH table.

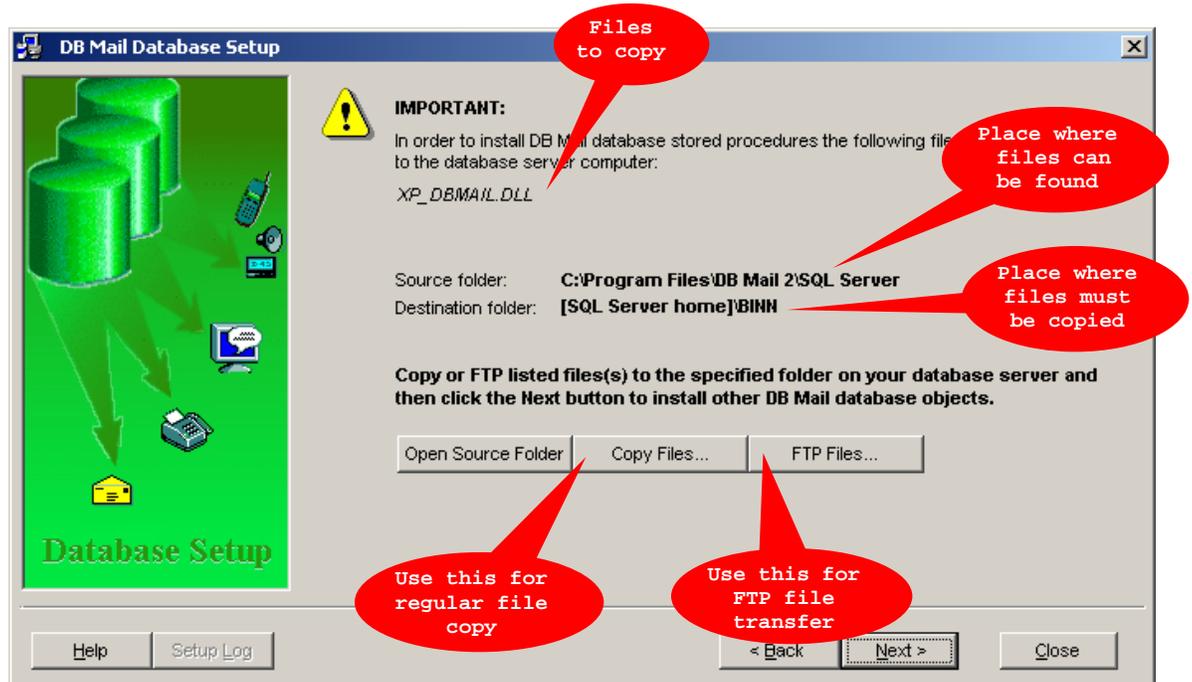
Microsoft SQL Server

DB Mail server side objects are installed in the **master** database within the DBMAIL schema. In order to create this schema, the DB Mail Database Setup utility creates the DBMAIL login and database user. In that schema the setup creates three database tables: PIPE, ATTACH, ATTACH_SEQ tables and also a set of stored procedures for sending emails, faxes, page and text messages, administrative alerts, and network popup messages. The setup will also install the *xp_dbmail.dll* on your SQL server computer that is required for DB Mail extended stored procedures.

These objects need to be installed in all Microsoft SQL Servers, regardless of version, that users want to send mail from.

To install DB Mail database objects in Microsoft SQL Server, perform the following steps:

1. Start DB Mail Database Setup utility.
2. Choose **Microsoft SQL Server 6.5, 7, 2000, and later** option and then click the **Next** button.
3. Enter valid password for the SA user into the **Password** field.
4. Select valid server name from the **Server** drop-down list. If you cannot find an existing name in the list simply type in the name then click the **Next** button. When installing DB Mail on a local SQL Server instance you can leave the **Server** field blank or type in *(local)* as a server name.
5. Use **Copy Files** or **FTP Files** option to copy *xp_dbmail.dll* file to BINN directory on your SQL Server computer.



For instructions on how to copy files see [How to copy files \(SQL Server example\)](#) topic.

For instructions on how to FTP files see [How to FTP files \(DB2 example\)](#) topic.

6. After you are done with copying files click the **Next** button again and then click the **Finish** button. DB Mail Database Setup will run installation scripts compatible with your SQL Server version.

Sybase SQL Server, ASE, ASA

DB Mail server side objects are installed in the **sybssystemprocs** database within the DBMAIL schema. In order to create this schema the DB Mail Database Setup utility creates the DBMAIL login and database user. In that schema the setup creates three database tables: PIPE, ATTACH, ATTACH_SEQ tables and also a set of stored procedures for sending emails, faxes, page and text messages, administrative alerts, and network popup messages. The setup will also install the *xp_dbmail.dll* on your SQL server computer that is required for DB Mail extended stored procedures.

These objects need to be installed in all Sybase SQL Servers, regardless of version, that users want to send mail from.

To install DB Mail database objects in Sybase SQL Server, perform the following steps:

1. Start DB Mail Database Setup utility.
2. Choose **Sybase SQL Server, Sybase ASE 10.x, 11.x, 12.x, and later** option and then click the **Next** button.
3. Enter valid password for the SA user into the **Password** field.
4. Select valid server name from the **Server** drop-down list. If you cannot find an existing name in the list simply type in the name then click the **Next** button. When installing DB Mail on a local SQL Server instance you can leave the **Server** field blank or type in *(local)* as a server name.
5. Select which version of DB Mail you want to install. If your Sybase server does not support Java you should install the limited version of DB Mail that does not support email attachments and fax procedures.

If your Sybase server supports Java but Java is not currently enabled you need to execute **sp_configure "enable java", 1** command using ISQL or any SQL editor. Then shut down and restart the server. You can also use Sybase Central console to change server configuration parameters.

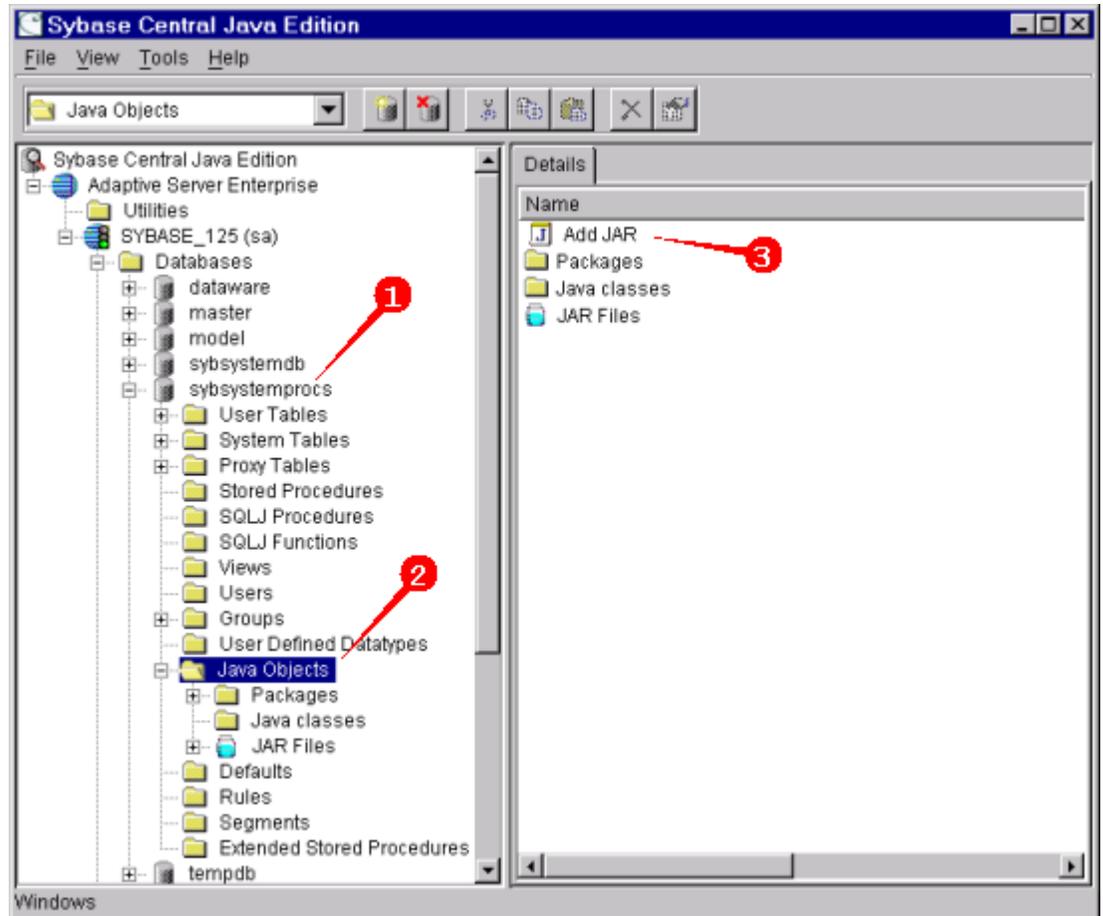


Important Notes:

- By default, Sybase Adaptive Server Enterprise is not enabled for Java. You cannot install Java classes or perform any Java operations until the server is enabled for Java.
- You can increase or decrease the amount of memory available for Java in Adaptive Server and optimize performance using *sp_configure* system stored procedure. Java configuration parameters are described in the Sybase System Administration Guide.

If DB Mail Database fails to load DBMAIL.JAR file into your Sybase data you can load this file manually using Sybase Central Java Edition as shown below:

1. In a Sybase Central Java Edition installation, connect to the database server and then select and expand **sybssystemprocs** database.
2. Select **Java Objects** folder.
3. Double-click **Add JAR** icon.

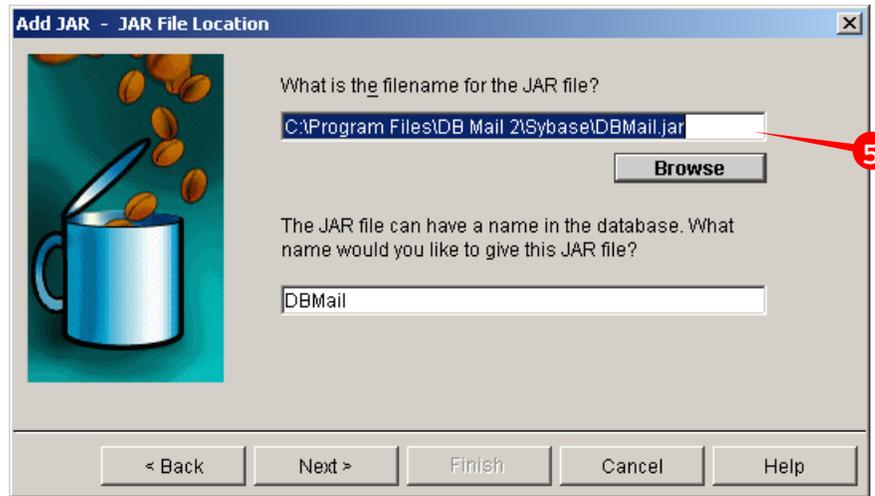


4. The Add JAR – Install Java class dialog will appear. If default settings in the dialog look ok click the **Next** button, otherwise correct setting and then click the **Next** button.

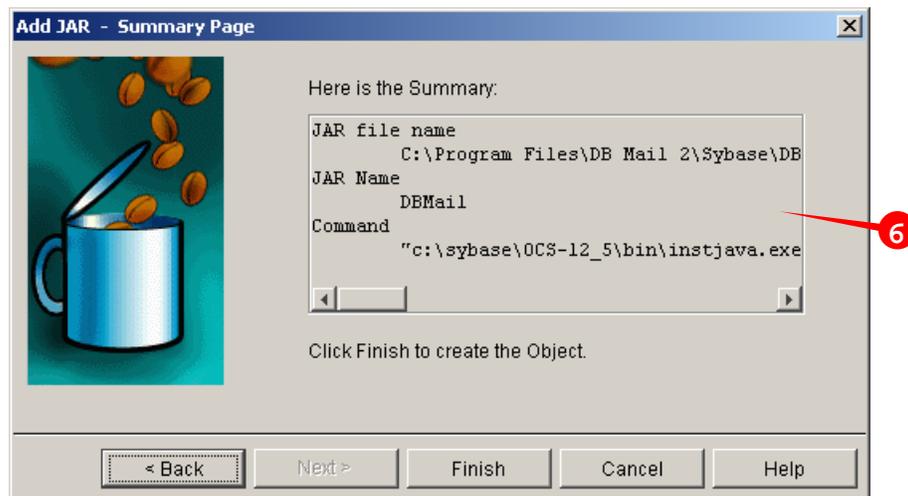


5. Use the browse button to locate the *DBMail.jar* file. By default this file can be found in *C:\Program Files\DB Mail 2\Sybase* directory. Click the **Next**

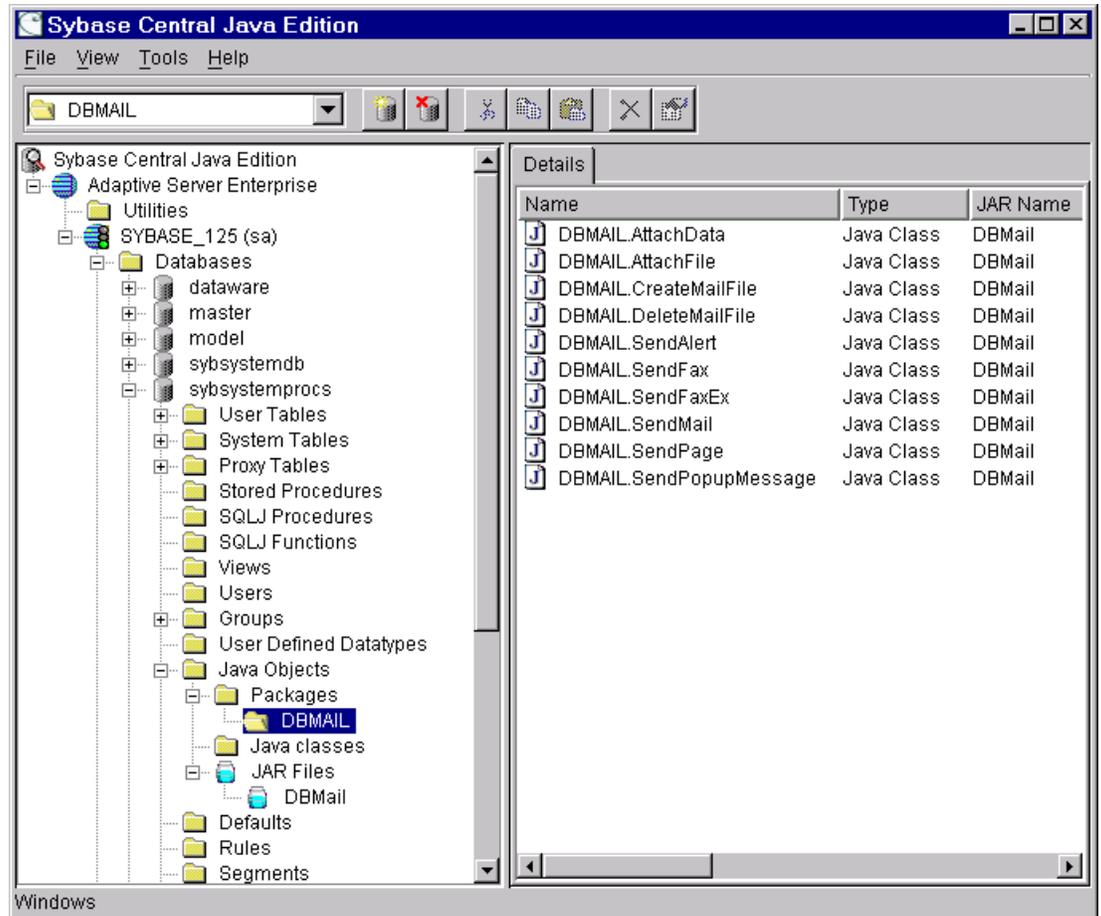
button again.



6. Verify selected options and click the **Finish** button.



7. If the JAR file loads correctly you should be able to see DB Mail Java classes loaded into the database as on the following screen shot.



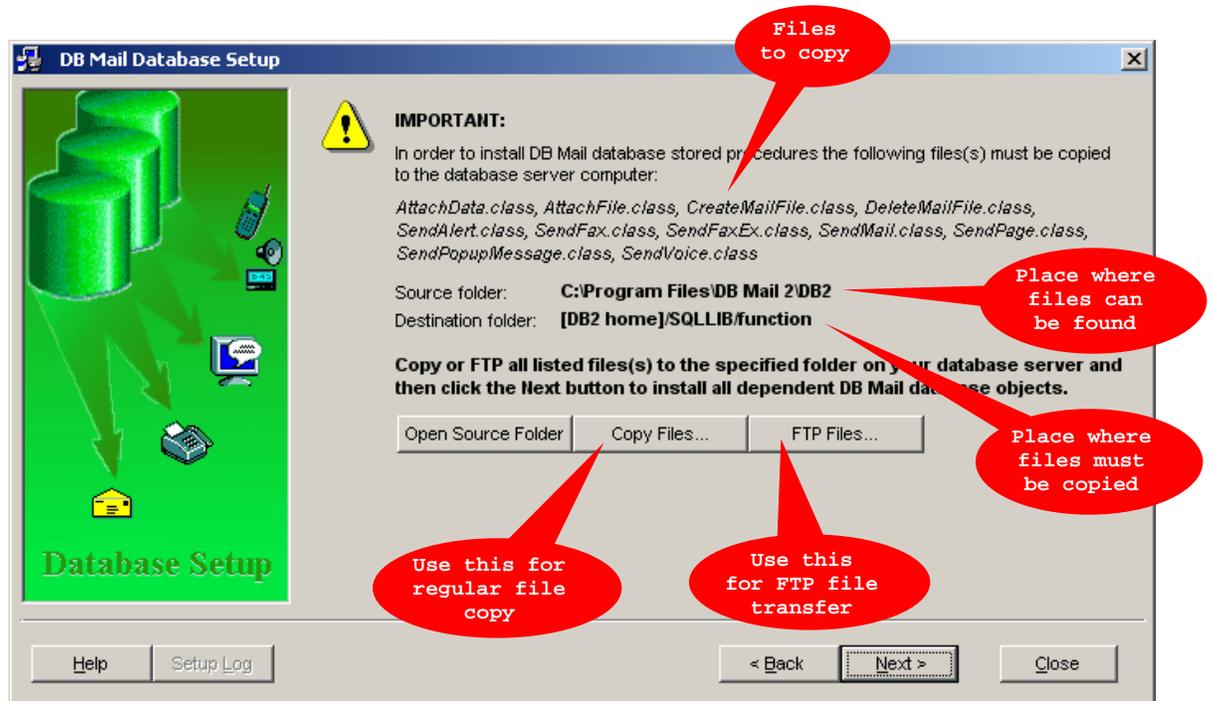
IBM DB2

DB Mail server side objects are installed in every DB2 database from where users will be sending mail. In order to install back-end objects the DB Mail Database Setup utility creates the DBMAIL schema. In that schema the setup creates three database tables: PIPE, ATTACH, ATTACH_SEQ tables and also a set of Java stored procedures for sending emails, faxes, page and text messages, administrative alerts, and network popup messages.

These objects need to be installed in all DB2 databases, regardless of version, that users want to send mail from.

To install DB Mail database objects in DB2 database perform the following steps:

1. Start DB Mail Database Setup utility.
2. Choose **IBM DB2 6.1, 6.2, 7.x, 8.x and later** option and then click the **Next** button.
3. Enter valid user id and password for a database administrator account into the **User** and the **Password** fields.
4. Select valid ODBC Profile name from the **Server** drop-down list. If you cannot find an existing name in the list simply type in the name then click the **Next** button.
5. Use **Copy Files** or **FTP Files** option to copy DB Mail Java classes to *DB2/SQLLIB/functiondirectory* on your DB2 computer.



For instructions on how to copy files see [How to copy files \(SQL Server example\)](#) topic.

For instructions on how to FTP files see [How to FTP files \(DB2 example\)](#) topic.

- After you are done with copying files click the **Next** button again and then click the **Finish** button. DB Mail Database Setup will run installation scripts compatible with your DB2 database version.

How to copy files (SQL Server example)

If you can access SQL Server home directory using a network share click the **Copy Files** button. The standard Windows **Browse for Folder** dialog will appear.

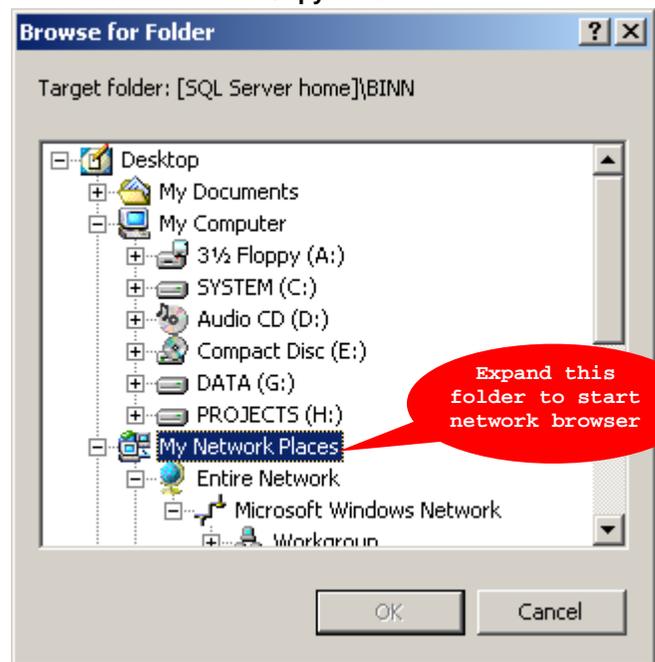
If you can access SQL Server computer via network browsing, expand the special "My Network Places" folder (On Windows 95/98/NT 4 this folder is called "Network Neighborhood"). Within that folder, open "Entire Network" and "Microsoft Windows Network" as needed. You should see a list of workgroups and network domains; open the domain or workgroup your SQL Server belongs to. Locate your SQL Server computer and then within that computer locate SQL Server installation directory. Inside that directory double-click on the BINN folder. DB Mail will copy required files over the network to the BINN directory.

If you cannot access SQL Server computer via network browsing you still should be able to access it via a mapped network drive. To map a remote SQL Server drive as a network drive use the "Map Network Drive" command, which you can access by right-clicking on the "My Computer" icon displayed on the Desktop. Type in the Windows-style share name of your directory, for example:

```
\\myserver\system
```

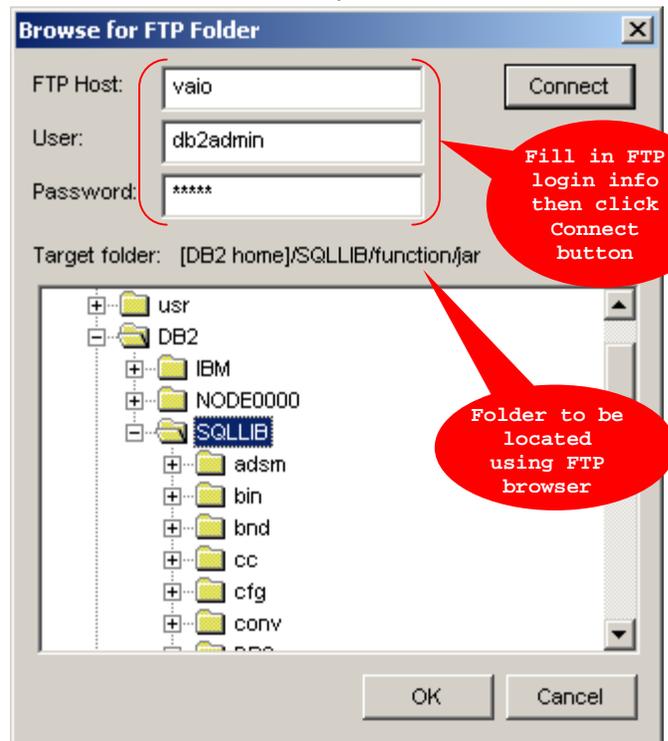
At this point, you must authenticate yourself before you are granted access. Enter appropriate user name and password for accessing the remote computer and then click the Enter key. Please note that you may need to use user name and password that are different from your database user id and password. Please contact your network administrator if you do not have your password or need additional help with this procedure.

After you mapped remote drive you can copy files to it just as you would copy files to your local drive.



How to FTP files (DB2 example)

If you cannot use a mapped drive but have FTP server running on your SQL Server computer you can use the **FTP Files** option. The setup utility features built-in mini FTP browser and FTP file copy utility. To start the FTP browser click **FTP Files** button and then enter FTP server connection parameters and press **Connect** button. Please note that you may need to use user name and password that are different from your database user id and password. Please contact your network administrator if you do not have your password or need additional help with this procedure.

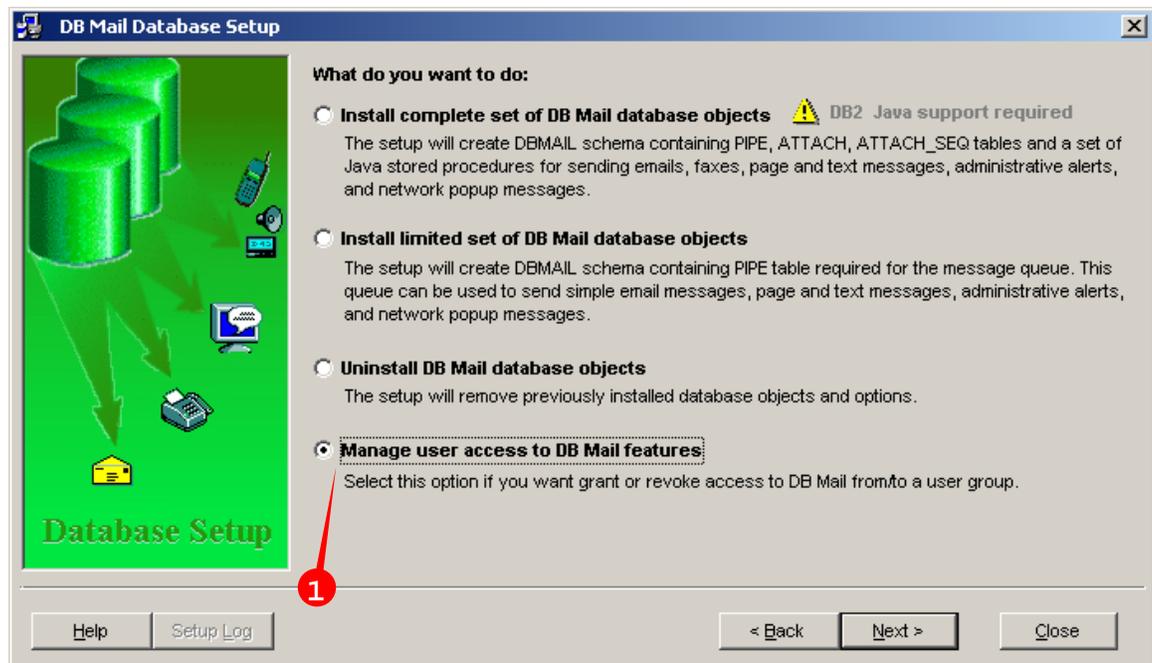


After the setup connects to your FTP server locate and expand *DB2* home directory. Within that directory locate *SQLLIB/function* subdirectory. Click the **OK** button. DB Mail will create the *DBMAIL* subdirectory and then FTP all required files to the new *DBMAIL* subdirectory.

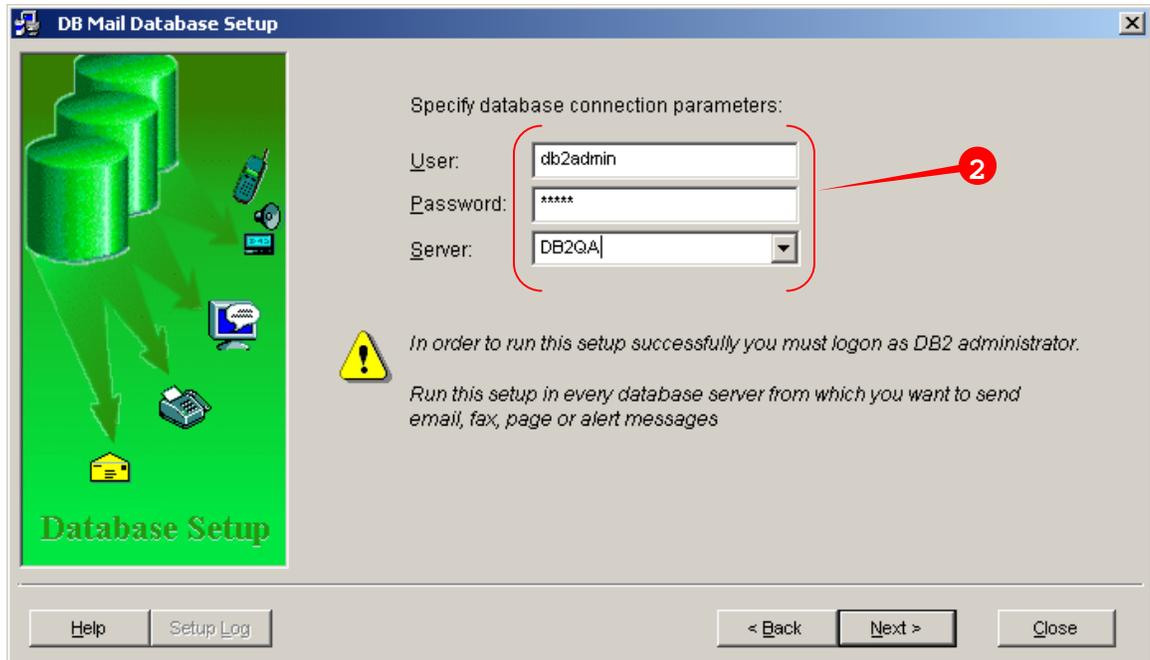
Managing user access to DB Mail features

Finally, a word about accesses privileges. The DB Mail objects are installed using database administrator's privileges. A user (other than a database administrator) who needs to send messages from within the database needs access to the DB Mail objects. Unless you want to restrict the privilege of sending messages from within the Database to specific individuals, you should grant PUBLIC access to DB Mail objects. To manage user access privileges use DB Mail Database Setup utility described in the [Back-end Installation](#) topic.

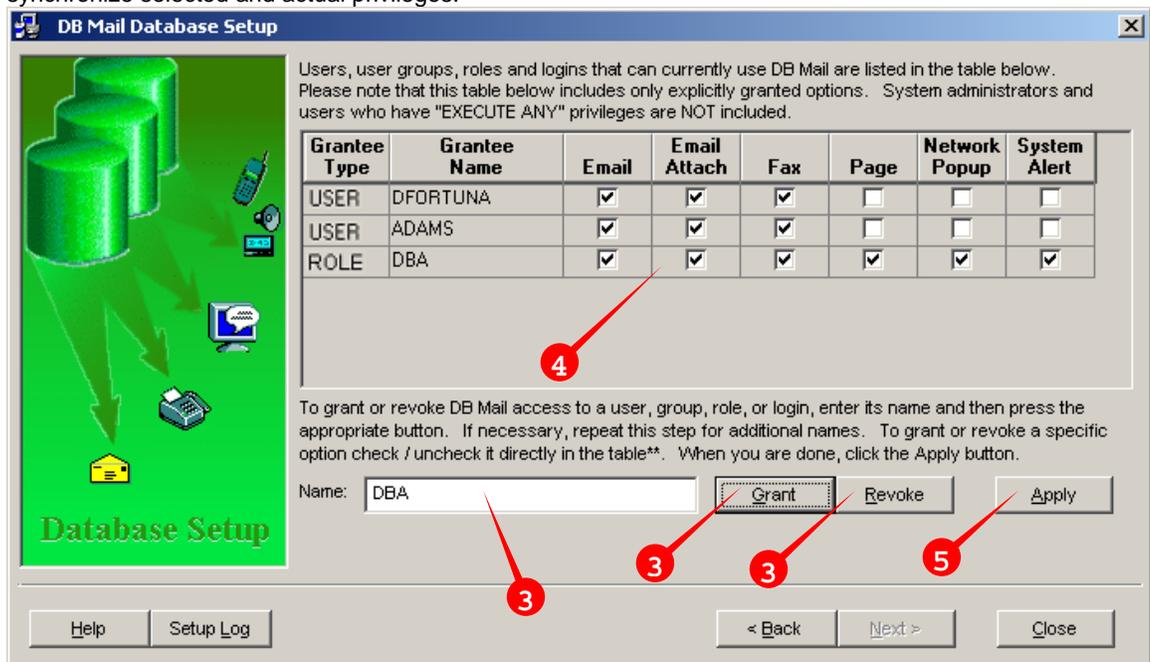
1. When prompted, choose **Manage user access to DB Mail features** option and then click the **Next** button.



2. Complete database connection parameters and then click the Next button again.



3. Enter database user names into the **Name** field one by one each time pressing the **Grant** button. If you made a mistake and would like to remove a user name that was entered by mistake, type that name in the **Name** field and then press the **Revoke** button.
4. In the Access Privileges table check/uncheck access options as appropriate.
5. Press the Apply to apply selected privileges. DB Mail Database setup will automatically synchronize selected and actual privileges.



 **Tip:** You can change user access privileges at any time by rerunning DB Mail Database Setup utility and choosing "Manage User Access" option again. The Database Setup utility will automatically

retrieve and show existing access privileges.

Testing

After you complete database-side installation the DB Mail Setup Wizard will offer to test the installed DB Mail messaging interface. If you choose to test it, the Test DB Mail Database Setup dialog will appear. Using this dialog you can test messages of different types. You can test all messages at once or you can pick any combination of messages.

To run tests:

1. Check which messages you want to send.
2. Enter message recipient numbers and names.
3. Click the **Test** button

DB Mail will create selected messages by running appropriate SQL statement in the database.

If you get any errors make sure to read additional test information shown on the **Test Results** tab page, if necessary, use scrollbars to scroll the displayed test results.



Important notes:

DB Mail Server Console must be used to configure database connection profiles and messaging options if you want to check how test messages get delivered to their destinations. If you do not do so before or during the testing phase your test messages will be saved in the message queue and will remain there until you run DB Mail Server Console and configure database connection profiles and messaging options. For more information on setting DB Mail configuration options see [Configuring](#).

Uninstallation

The DB Mail supports standard uninstallation mechanism for removing program files from the system where DB Mail was previously installed.

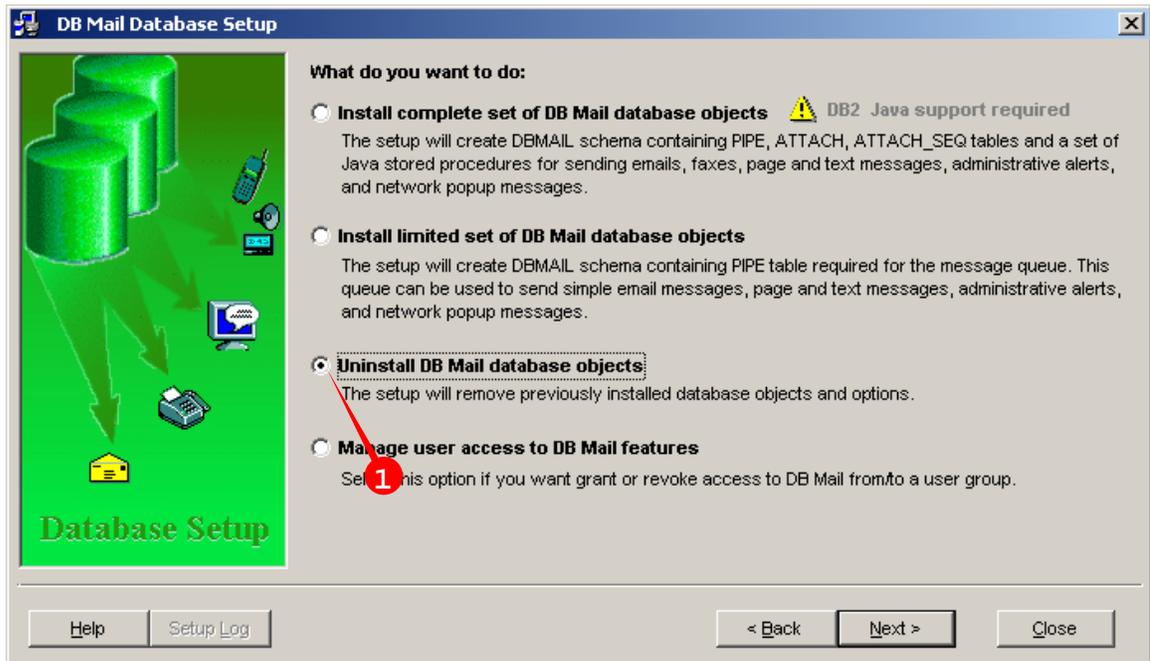
To uninstall DB Mail do the following:

1. Click Windows **Start** button, from the Start Menu select **Settings**, then **Control Panel**.
2. Double-click **Add/Remove Programs**.

3. Select the **DB Mail 2** item in the programs list, click **Add/Remove** button

Delete all files that are left behind in the DB Mail home directory. Delete the home directory.

 **Important Note:** If you wish to uninstall DB Mail database back-end objects you should run DB Mail Database Setup utility before uninstalling DB Mail server components.



After you uninstall main DB Mail objects using DB Mail Database Setup utility you may also want to delete additional files copied during the Installation procedure.

Microsoft SQL Server

If you uninstall DB Mail from Microsoft SQL Server, do not forget to manually delete xp_dbmail.dll file from SQL Server BINN directory.

DB2

If you uninstall DB Mail from IBM DB2 server, do not forget to manually delete all *.JAR files from `DB2\SQLLIB\function\jar\DB Mail` directory on your DB2 server.

Configuring DB Mail Server

Before you can use DB Mail you must configure database connections and email properties. To change DB Mail configuration, select **File/Options** item in the DB Mail Server Console menu. The DB Mail Options dialog will appear. This dialog contains 10 tab pages for different DB Mail options. They are:

- Database
- Queue
- Error Handling
- Self-checking
- Archiving
- Email
- SMS & Pager
- Pop-up & Alerts
- Fax
- Voice & Phone

You will need to configure these options carefully for DB Mail to work properly and effectively. To better explain the features, screen shots are presented along with explanations for the options.

Configuring Databases Options

Database connections for DB Mail are specified here. Before you add a new database connection, make sure you have already completed installing DB Mail in your database(s). See the [DB Mail Back-end Installation](#) topic for details. The details of all the databases where you would like users to send email using DB Mail will need to be captured here, and Profiles assigned to them.

Profile	Driver	Server	User	Password
HR	Oracle 7.3	hr2	dbmail	xxxxxx
Development	Oracle 8.0.4 - 8i - 9i	nydev	system	xxxxxx
Web Development	ODBC (DB2)	webserv	db2admin	xxxxxx
QA Web	ODBC (DB2)	webservqa	db2admin	xxxxxx
HelpDesk	Microsoft SQL Server	nyhd	sa	xxxxxx

Polling interval: (seconds) Logging level:

Configuration Option	Description
Profile	Database profile is the name (upto 50 characters long) for the set of parameters that define a connection to a particular database. Enter any descriptive name. When logging various errors and messages DB Mail uses this profile name as a reference name for the message source.
Driver	<p>Specifies which database driver/connection method to use when connecting to your database. You should select the driver that matches your DBMS version.. Please refer to Connecting to your database for more details of the various driver choices and what should be selected. The drop down box in the graphic above shows all the supported drivers.</p> <p> Important note:</p> <p>When choosing a native database driver for the connection, make sure that you select the driver that matches the version of your database client software installed on the system, not the version of your database server software. For example, if you have Oracle SQL*Net 2 with Oracle 7.3 client files installed on your workstation but connect to an Oracle 8i database, you should select OR7 Oracle 7.3 driver for the connection.</p>
Server	The server name or server connection string specifying parameters that the database driver uses to connect to the database server. For ODBC data sources specify data source name. For native database drivers it should be the same string that you use when connecting from SQL*Plus, ISQL and other database utilities. For more details on setting up database connection parameters, see Connecting to your database .
User	A valid login ID for your database server that has full access to the

	objects required by DB Mail.
Password	The login password of your database server. The password you type is displayed in asterisks (*).
 button	Click this button to add a new row to the list of database connections
 button	Click this button to remove the selected row from the list of database connections
Polling interval	<p>Use this property to specify how often you want the daemon process to perform the check for new email messages placed to the DB_MAIL pipe.</p> <p>A note of caution: The DB Mail daemon process can check for new messages virtually every second. However, frequent checking will cause additional network and database load. If you are not planning to send large amounts of email messages every day, set this to a more reasonable value, such as 60 seconds.</p>
Logging level	<p>Logging level specifies the amount of information you want DB Mail to log for auditing and troubleshooting purposes. The following 3 levels are available:</p> <ul style="list-style-type: none"> • Normal – This level includes various status messages and all email processing errors. • High – This level includes all messages that are provided with the Normal level as well as some additional messages describing DB Mail progress of work. You should use this level when troubleshooting DB Mail. • Development – This level includes all messages that are provided with the High level as well as complete text of all email, fax, page and other messages sent via DB Mail. You should use this level when troubleshooting your SQL code that generates these messages. <p> Important notes:</p> <p>DB Mail logs all selected messages to the screen and DB_MAIL.LOG file. The screen buffer is limited to 1000 lines produced by the most recent messages. The DB_MAIL.LOG file is located in the same directory where the DB Mail software has been installed (\Program Files\DB Mail2 by default) and has no size limit. It should be deleted or archived from time-to-time; otherwise it may easily grow large leading to disk space usage problems. Note that higher logging levels allow more information written to the log file thus causing the log file to grow faster. You should use High and Development levels only when you are troubleshooting message processing problems and use Normal or Low levels at all other times.</p>

 **Important notes:**

Specifying the database administrator's id and password in the Profile may compromise Security, as the passwords are stored in the registry of the DB Mail server. To avoid this, you may want to create a specific user on the remote database who has limited access only to the DB Mail objects named previously.

Configuring Email Options

DB Mail supports three different email interfaces: standard Windows MAPI (Messaging Application Programming Interface), SMTP (Simple Mail Transfer Protocol), and Lotus Notes interface utilizing Lotus Notes API. DB Mail uses the selected interface when sending email messages.

Important Note:

Only one of these three interfaces can be selected at any time. The DB Mail Server will need to be restarted if this option is changed.

Tip:

If your telephone company supports an email-to-pager service, you can also configure DB Mail to page messages to alphanumeric pagers by sending them to the appropriate email address. Do not confuse this option with the DB Mail paging service, which uses SNPP protocol over TCP/IP network to send numeric and text messages to pagers and cell phones.



The screenshot shows the 'DB Mail Options' dialog box with the 'Email' tab active. The 'Email System Options' section has three radio buttons: 'MAPI', 'SMTP' (which is selected), and 'Lotus Notes'. Below this, the 'MAPI Properties' section includes a text box for 'MAPI profile' containing 'Outlook', a 'Password' field, and a 'Send Method' dropdown menu set to 'By Name'. The 'SMTP Properties' section includes text boxes for 'SMTP server' (smtp.mycompany.com), 'Port' (25), 'Default email account' (admin@mycompany.com), and a dropdown for 'Encoding' (mime). The 'Lotus Notes Properties' section has text boxes for 'Logon user' and 'Password'. At the bottom right, there are 'OK' and 'Cancel' buttons.

The options are explained below.

Configuration Option	Description
Email system	<p>Select one of the following:</p> <ul style="list-style-type: none"> • MAPI • SMTP • Lotus Notes <p>Based on your email system selection you should complete the corresponding email system properties box. Depending on the Email system chosen, the other property boxes will be grayed out.</p>
MAPI Profile	<p>This is the name of a MAPI profile. MAPI profile contains a set of parameters that define a connection and email send method to a</p>

	particular mail server. Type the desired name or click the  button to select the name of an existing MAPI profile. If you don't have a profile yet or would like to create a new profile, use the Control Panel/Mail applet to create MAPI profile. For details on creating new MAPI profiles see the Configuring New MAPI Profile topic later in this chapter.
MAPI Password	Enter a valid password required to logon to your email client. Leave this field blank if your email client does not require a password.
MAPI Send Method	Different email clients use various internal MAPI properties when sending email messages. For example, Microsoft Outlook® expects the email address or email user name to appear in the Name property, while others such as Netscape Messenger® expect it to appear in the Address property. Select the Send Method that is compatible with your email client. Important notes: If the selected method is not compatible with your email client, an Email Compose window will appear on the screen for every email message sent using MAPI interface. To avoid this situation, select another method.
SMTP Server	Name of your SMTP server
SMTP Port	Port used by your SMTP Server for SMTP listening. The default port used by most servers is 25.
Default Email Account	Default sender email address to be used for outgoing email when sender is not specified. Important notes: Some email servers require valid email address for authentication.
Encoding	Select the desired encoding method that is supported by the recipient's email programs. Today most email programs support mime . Important notes: For email messages with attachments DB Mail ignores the selected encoding method and always uses mime . If you are going to send email messages to a pager, you should select none for the encoding.
Lotus Notes User	Valid user name that you use to logon to your Lotus Notes client software.
Lotus Notes Password	Valid password that you use to logon to your Lotus Notes client software.

 **Important notes:**

- MAPI and SMTP interfaces enable DB Mail to interact with multiple messaging systems across a variety of software and hardware platforms whereas Lotus Notes interface works with the following configurations only:
 - 1) Lotus Notes workstation v4.5 and later running on Windows NT workstation or server (Intel platforms only). There is no limitation with respect to the Lotus Notes server version and platform.
 - 2) Lotus Notes server v4.5 and later running on Windows NT server (Intel platform only).
- If you have installed Lotus Notes MAPI extensions, you can still use MAPI interface to send

and receive email via Lotus Notes. It is recommended that the MAPI interface be used wherever possible. The Lotus Notes interface may not keep up with the newer versions of the Lotus Notes although SoftTree Technologies will make all efforts to release updated versions where required.

- DB Mail Lotus Notes interface consists of two parts:
 - Notes email interface library
 - Notes extension manager

DB Mail email interface library for Lotus Notes always uses the default Notes mail database and mail server. Default settings are taken from Notes environment variables.

 **Warning:**

DB Mail installs Notes extension manager program that intercepts the Notes password prompt, and supplies the password that you specified in the DB Mail options. The extension manager allows sending email messages via Notes without user intervention when Notes normally requires a password. The extension manager program is built as a set of dynamic link libraries (DLLs). These DLLs are loaded by Lotus Notes on startup, and they behave as if they are part of the Lotus Notes software. While a DB Mail email operation is in progress, your Lotus Notes is exposed to other users and programs because no password is required at that moment to interact with the Lotus Notes software. Before selecting Lotus Notes interface, make sure you don't have another Notes extension manager already installed on your system. To verify this, make sure you don't have the EXTMGR_ADDINS key in the NOTES.INI file or that key is not initialized.

Configuring New MAPI Profile

Before you configure a new or existing MAPI profile, make sure you have some email client software installed on the DB Mail computer. The following instructions refer to the configuration of MAPI for Microsoft Outlook ®, but they can be easily adopted for other email client software.

To configure MAPI with the Outlook client on the DB Mail computer follow these steps:

1. In Control Panel, double-click the **Mail** icon.
2. Click **Add**.



3. Select the **Microsoft Exchange Server** check box or select any other available mail server check box that appears in the **Information Services** list. Click **Next**.



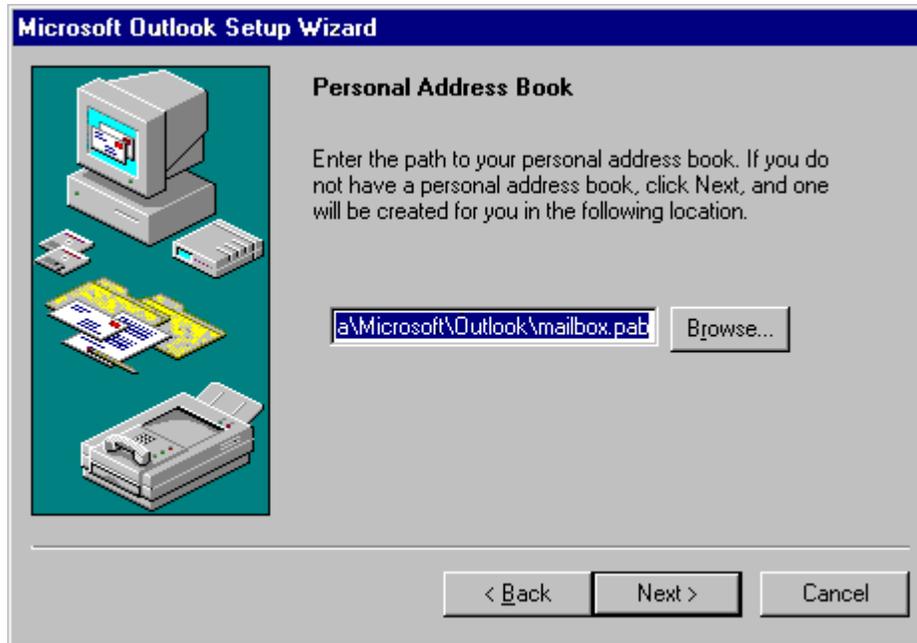
4. Type the Exchange Server name in the **Microsoft Exchange server** box, type *db_mail* or any other name in the **Mailbox** box, and then click **Next**.



5. Verify that **No** is selected. If it is not already selected, click **No**, and then click **Next**.



6. Type the path and name of your **Personal Address Book** or choose the default provided, and then click **Next**. Microsoft recommends that you store this information in the Windows NT Profiles directory; for example, C:\Winnt\Profiles\db_mail. This will help to prevent the file from being accidentally overwritten.

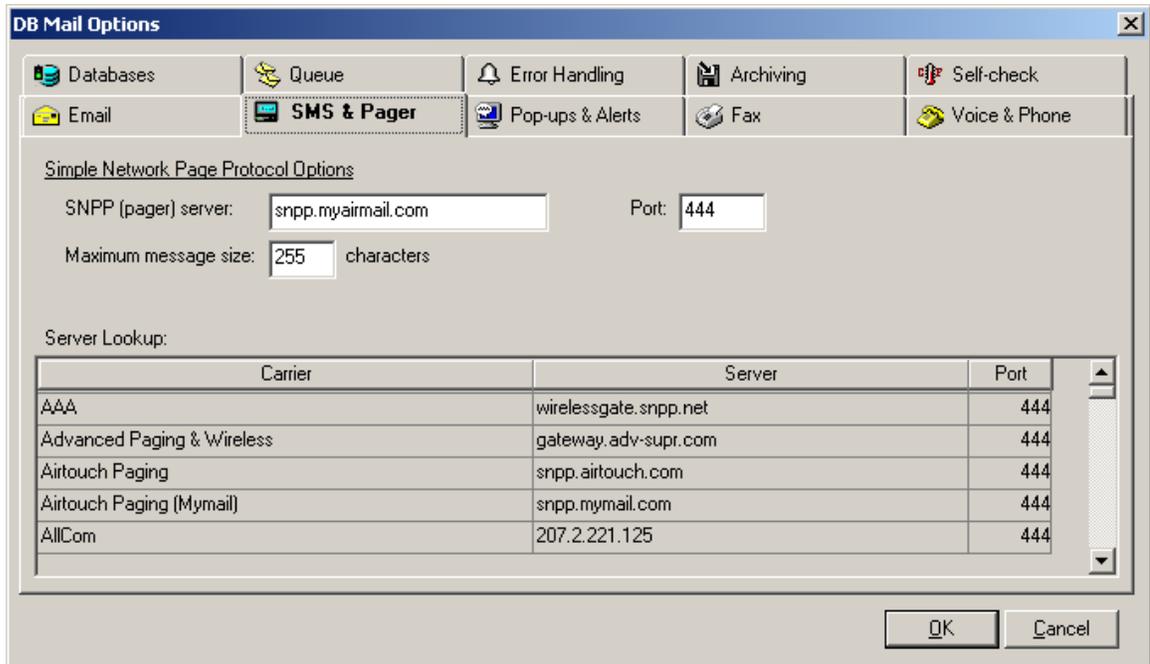


7. Click **Finish**.



Configuring SMS and Pager Options

DB Mail can be configured to directly send SMS messages to alphanumeric pagers and cell phones. This is performed using the Simple Network Page Protocol. In Oracle, the SMS interface is accessed via the SEND_PAGE function call in the DB_MAIL package. In other databases the Pager is accessed via the SendPage stored procedure or by directly inserting data into DBMAIL.PIPE table.

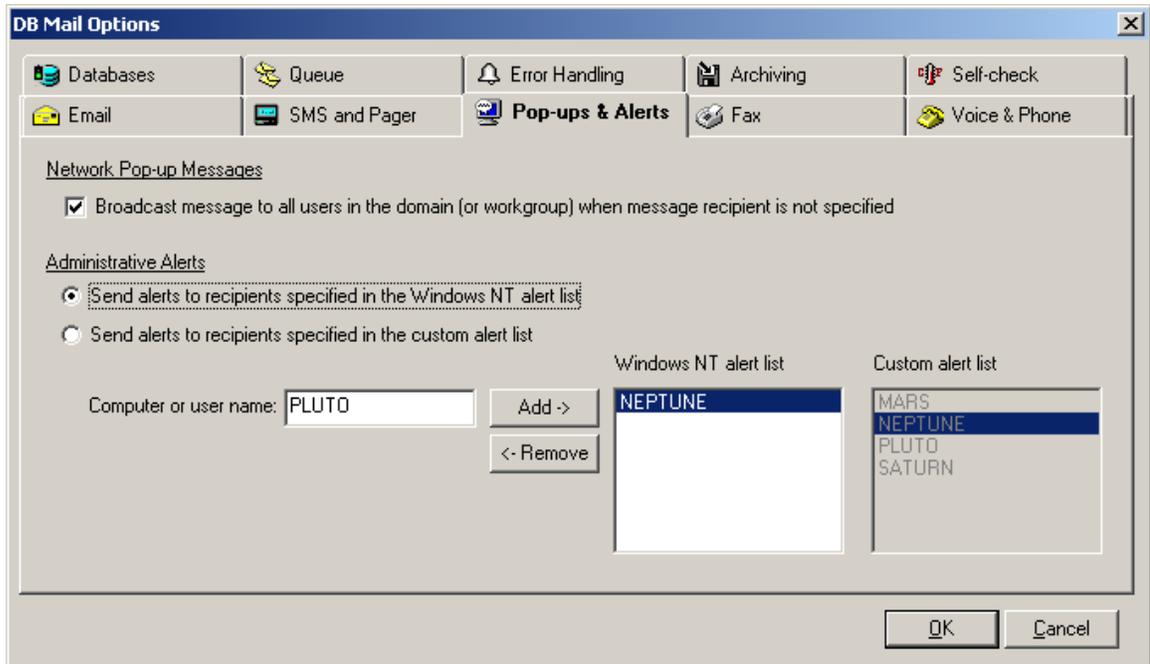


Configuration Option	Description
SNPP (pager) server	SNPP (pager) server – Name of your Simple Network Page Protocol server computer – just as with SMTP server this could be a network name or an IP address. This is the system name of your SNPP service provider (Telecom company). For example, Verizon uses snpp.myairmail.com. To find out your SNPP server name contact your service provider.
Port	Port – Port on which SNPP server listens for pager messages. Standard port number is 444 but different providers for security reasons may use different port numbers. Contact your service provider for more information.
Max. message size	Max. message size – maximum size of alpha (e.g. text) messages supported by your service provider and pager -- usually 240 characters.

Configuring Network Popups and Alerts Options

DB Mail can be configured to send network popup messages and alerts to computers/users in the same domain/workgroup. In Oracle, the Network Popups and Alerts interface is accessed via the SEND_POPUP_MESSAGE and SEND_ALERT functions calls in the DB_MAIL package. In other databases the interface is accessed via the SendPopupMessage and SendAlert stored procedures or by directly inserting data into DBMAIL.PIPE table.

These functions require that NT Messenger service is running on the recipient's computers. Recipients must be running Windows NT 4, 2000, XP, 2003 or later. This functionality is identical to the Windows NT NET SEND command.



Configuration Option	Description
Broadcast option	Broadcast option – controls what DB Mail does when a NULL value is specified for the recipient parameter in the DB_MAIL.SEND_POPUP_MESSAGE function. If checked the message is displayed on every computer in the domain. If there is no domain (domain-less environment such as a peer-to-peer network), it is displayed on every computer in the workgroup. If this options is not checked messages with null recipient names are ignored.
Send alerts for recipients in NT alert list	Sends alerts for recipients in the NT alert list – controls how DB Mail executes DB_MAIL.SEND_ALERT function. If checked DB Mail will send interruptible alert messages to system administrators whose names are specified on the NT server.
Send alerts for recipients in the custom list	Sends alerts for recipients in the custom list – Allows an alternative list for use with DB_MAIL.SEND_ALERT. This may be helpful if the person who configures the DB Mail does not have admin rights or access to the alert list on NT server.
Computer or user name	Use this field to add specific computers or user names who should receive the pop-ups and alerts

Configuring Fax Options

DB Mail can be configured to send electronic faxes. In Oracle, the Fax interface is accessed via the SEND_FAX and SEND_FAX_EX function calls in the DB_MAIL package. In other databases the Fax interface is accessed via the SendFax and SendFaxEx stored procedures.

DB Mail Options

Databases Queue Error Handling Archiving Self-check
 Email SMS & Pager Pop-ups & Alerts Fax Voice & Phone

Fax Server Options

Fax queue folder: C:\Documents and Settings\All Users\Application Data\Microsoft\Windows NT\MSPFax ...

Number of retries^{**}: 3 Retry interval (minutes): 10 ** Number of fax retries if the destination fax is busy or there is no answer.

Fax driver: Windows NT Fax Driver Fax printer: Fax Port: MSFAX

Fax servers*: server1, server2, server3 * Enter comma-separated list of computer names or IP addresses.

Fax Cover Page

Default cover page: GENERIC

Company name: My Company

Mail address: 100 My Street State, Postal Code Telephone: (123) 456-7890 Fax: (123) 456-7891

OK Cancel

Configuration Option	Description
Fax queue folder	Folder where pending documents are queued for faxing. This folder is used by the Fax driver. Do not select DB Mail queue folder as it has nothing to do with DB Mail message queuing options.
Number of retries	This parameter controls how many times to retry faxing if the destination number is busy or not responding properly. If all attempts fail, the message is marked as failed and the document is moved to the Failed Faxes folder.
Retry interval	Minimum time to wait between fax retries.
Fax driver	Name of the fax driver as it appears in Windows Control Panel Printer's applet.
Fax servers	<p>Location of the fax server computer. The Fax server can be run on a computer where DB Mail is installed or any other computer on the network. DB Mail uses the fax server to process Fax messages. DB Mail actually prints fax messages to a Fax compatible graphic file, which it sends to the fax server for further processing.</p> <p> Tip: Fax transmissions are relatively slow operations. DB Mail provides built-in support for fax processing scaling out strategy (scaling out is the strategy that increases the capacity of an infrastructure tier to handle load by adding servers, thereby increasing the aggregate capacity of those servers). DB Mail server can be configured to work with multiple fax servers concurrently in order to increase the overall system throughput. As your fax processing volume grows you can add additional fax servers as needed and configure DB Mail server accordingly.</p> <p>To instruct DB Mail server to use multiple fax servers enter fax server computer names or IP addresses as a comma-separated list. Order of server names in the list is not important because DB Mail uses simple</p>

	round-robin method to communicate to multiple servers.
Fax Printer	Fax Printer name as it appears in Windows Control Panel Printer's applet.
Port	Port as it appears in Windows Control Panel Printer's applet.
Default cover page	Name of cover page file to use when NULL is specified for cover page parameter in DB_MAIL.SEND_FAX and DB_MAIL.SEND_FAX_EX functions. You can design cover pages using MS Cover Page Designer, which is a part of the Fax server software. Cover pages must be stored on the Fax server computer.
Company name, mail address, phone, fax	Default values for Company name, mail address, phone, fax to be inserted into the specified cover page when DB_MAIL.SEND_FAX is used.



Important Note:

Fax Server software is installed by default on all Windows 2000/XP/2003 computers. Fax Server can run on any server or workstation. The computer must have a modem or modem pool and be connected to a phone line in order to send electronic faxes.

Configuring Voice Messaging Options

DB Mail can be configured to make phone calls and send pre-recorded or dynamically synthesized voice messages. In Oracle, the Voice Messaging interface is accessed via the SEND_VOICE function call in the DB_MAIL package. In other databases the Voice Messaging interface is accessed via the SendVoice stored procedure or by directly inserting data into DBMAIL.PIPE table.

DB Mail Options

Databases Queue Error Handling Archiving Self-check
 Email SMS & Pager Pop-ups & Alerts Fax **Voice & Phone**

Voice Message Server Options

Number of retries^{**}: Retry interval (minutes):

Voice servers^{*}:

Port:

Logon user:

^{**} Number of call retries if the destination number is busy or there is no answer. Retry parameters must be configured directly in the voice server properties.
^{*} Enter comma-separated list of computer names or IP addresses.

OK Cancel

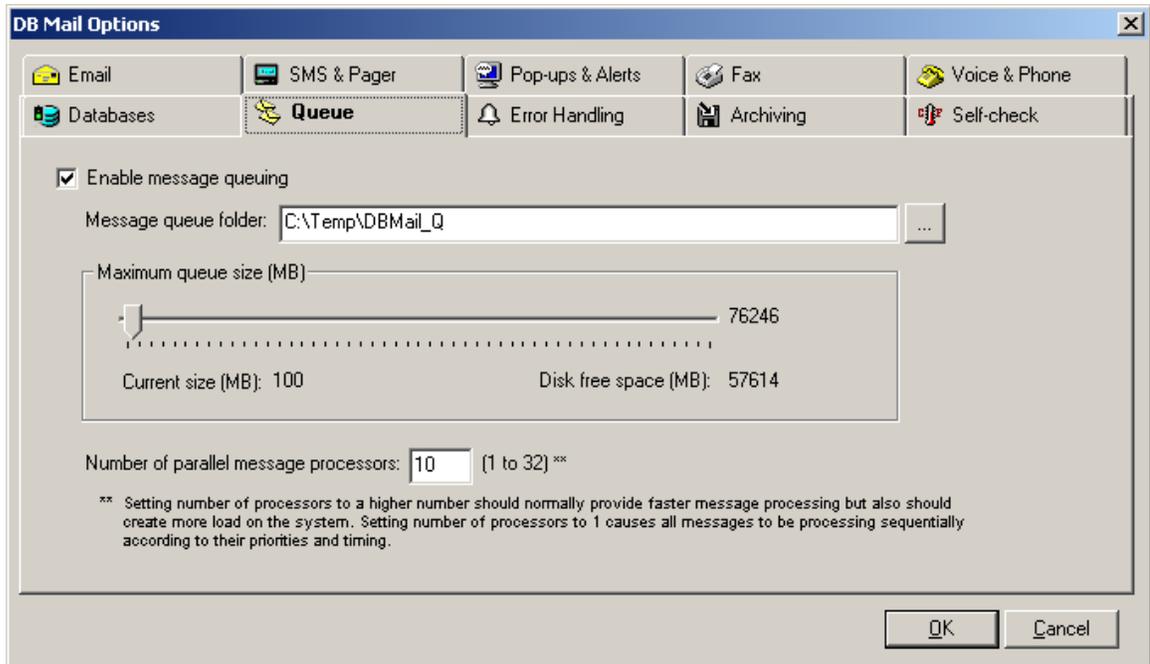
Configuration Option	Description
Number of retries	This parameter cannot be controlled through DB Mail interface and must be configured on the VoMS server using VoMS Administrator utility. This parameter controls how many times to retry calling if the destination number is busy or not responding properly. If all attempts fail, the message is marked as failed and the document is moved to the Failed Messages folder.
Retry interval	Minimum time to wait between phone call retries.
Voice servers	<p>Location of the VoMS server computer. The VoMS server can be run on a computer where DB Mail is installed or any other computer on the network. DB Mail uses the VoMS server to process voice messages. DB Mail actually uses the built-in VoMS client software to transmit messages to the to the VoMS server for further processing.</p> <p> Tip: Making phone calls and sending voice messages are relatively slow operations. DB Mail provides built-in support for voice processing scaling out strategy (scaling out is the strategy that increases the capacity of an infrastructure tier to handle load by adding servers, thereby increasing the aggregate capacity of those servers). DB Mail server can be configured to work with multiple VoMS servers concurrently in order to increase the overall system throughput. As your call processing volume grows you can add additional VoMS servers as needed and configure DB Mail server accordingly.</p> <p>To instruct DB Mail server to use multiple VoMS servers enter VoMS server computer names or IP addresses as a comma-separated list. Order of server names in the list is not important because DB Mail uses simple round-robin method to communicate to multiple servers.</p>
Port	Port number as it is configured in the VoMS server properties.
Logon user name	Name of the user for VoMS server authentication. This property cannot be changed and always defaults to DB MAIL.

 **Important Note:**

VoMS Server software is not installed by default. To install the limited version of the VoMS server that comes with every DB Mail license use the DB Mail setup program and choose to install VoMS Voice Message Server software. To install the full version contact SoftTree Technologies to obtain the VoMS server license. The VoMS server can be installed and can run on any server or workstation. The computer must have a sound card and a voice modem or Intel Dialogic phone board and be connected to a phone line in order to make phone calls and send voice messages.

Configuring Queue Options

For improved database performance DB Mail can queue messages obtained from the DB_MAIL database pipe. This asynchronous out-of-database message queuing allows DB Mail to obtain new messages while sending messages that arrived earlier. The new messages are extracted from the pipe almost immediately as they are placed to the DB_MAIL pipe by your SQL code running within the database. Therefore, your SQL code does not wait for the messages to be sent.



For disk space usage and processing efficiency, DB Mail stores messages in compressed format.

Configuration Option	Description
Enable message queuing	The Message Queue is optional. You can turn it on/off by selecting/deselecting this option.
Message queue folder	This is the directory where DB Mail stores queued messages and other temporary files. You can type the folder name or use the Browse button to select a different folder.
Maximum queue size	Specifies how much disk space to use for the files in the Message Queue folder. The more disk space you allot to the folder, the more messages DB Mail can store on your hard disk. If you are low on disk space, you might want to set this option to a lower percentage. If there is not enough space to store a newly arrived message, DB Mail stops processing new messages until free space become available in the folder. Note that sent messages are removed from the queue immediately so the space can be reused by other messages. To change the "maximum queue size" value, you can drag the slider control by mouse or for more precision positioning use Arrow Left and Arrow Right keys on your keyboard to move the slider control.



Important notes:

You must restart DB Mail Server before new changes for the Message Queue will take effect. If you change Message Queue folder and restart DB Mail while some messages are still waiting in the queue, all unsent messages will remain in the old message queue folder.

Configuring Error-Handling Options

For your convenience, DB Mail supports customizable error handling so that you can tune DB Mail to your error handling requirements.

DB Mail Options

Email
 SMS and Pager
 Pop-ups & Alerts
 Fax
 Voice & Phone
 Databases
 Queue
 Error Handling
 Archiving
 Self-check

Database Communication Error

Notify administrator by email
 Notify administrator by network message

Database Pipe Error or Malformed Message

Notify sender by email (if address available)
 Notify administrator by email
 Notify administrator by network message

Email System Communication Error

Notify administrator by network message

Email Delivery Error

Notify sender by email
 Notify administrator by email
 Notify administrator by network message

Administrator's email address:

Administrator's network name:

*** Network name must be in [/domain:]name format. Domain part is optional. Name part is the username, computername, or messaging name to send the message to. If the name is a computername that contains blank characters, enclose the alias in quotation marks (" "). Examples: MikeSmith; /hynet01:MikeSmith; "Mike Smith"

Recovery Options for Broken Database Connections

Number of connection retries: Retry Interval (seconds):

Recovery Options for Broken SMTP Connections

Number of connection retries: Retry Interval (seconds):

Note that both email as well as Network pop-up messages can be sent for most Error conditions.

Configuration Option	Description
Database Communication Errors	This option instructs DB Mail to notify system administrators in case the database connection is broken, server is down or not available and so on.
Database Pipe Errors or Malformed Messages	This option instructs DB Mail to notify system administrators and the email sender in case DB Mail is unable to retrieve valid message data.
Email System Communication Errors	This option instructs DB Mail to notify system administrators in case it is unable to communicate to your email server. This option is applicable for SMTP email interface only. If you are using MAPI or Lotus Notes interface, use your email client options to configure error handling.
Email Delivery Errors	This option instructs DB Mail to notify system administrators and email sender in case your email server (SMTP interface) or your email client (MAPI and Lotus Notes) are returning an error indicating that the email message cannot be delivered. For example, this error can be detected if your email server does not recognize the recipient's address or sender's name. This error WILL NOT be detected if your MAPI or Lotus Notes client does accept the message but later (after the fact the message was sent by DB Mail) the email server rejects it. In that case, the email sender should receive an automated reply notice directly from the email server.
Administrator's email	This is the system administrator email address that DB Mail can use

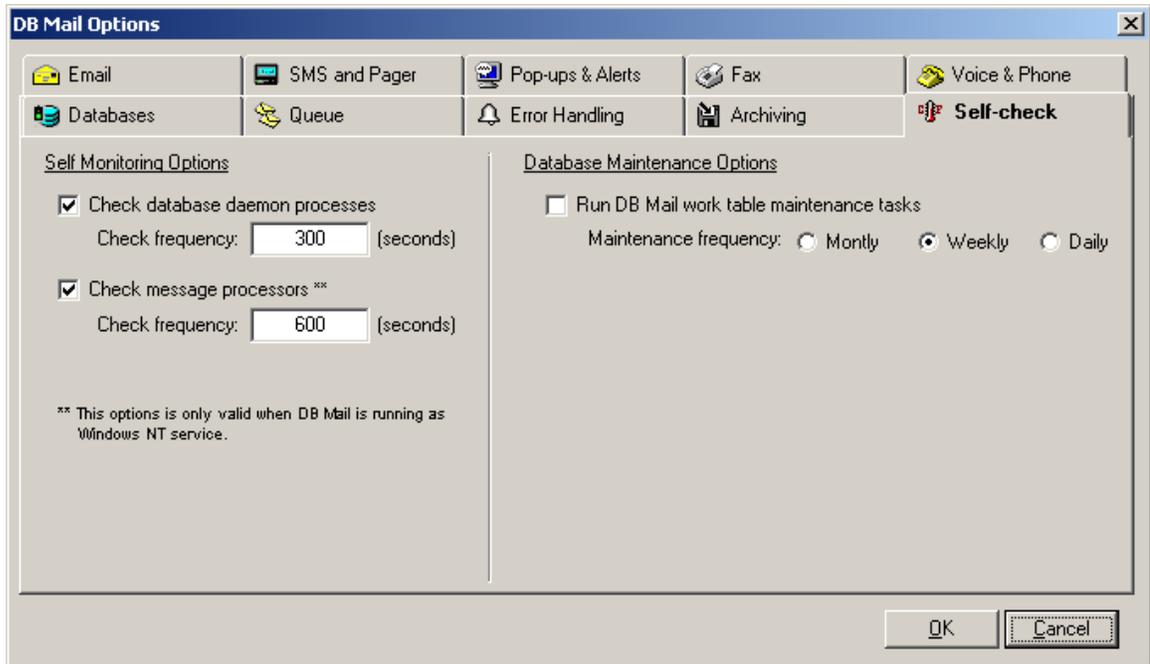
address	to send error notification messages. If you have more than one administrator whom you want to be notified in case of detected problems, specify their email addresses as a comma-separated list. If no email is specified, DB Mail ignores error-handling options for which it is supposed to send an email notification.
Administrator's network name	This is the system administrator network name that DB Mail can use to send error notification messages. If you have more than one administrator whom you want to be notified in case of detected problems, specify their network workgroup name so that everyone in the workgroup can be notified. If no network name is specified, DB Mail ignores error-handling options for which it is supposed to send a network message notification.
Recovery Options for Broken Database Connections	<p>Number of Retries – This option instructs DB Mail how many times it should attempt to reestablish broken database connections.</p> <p>Retry Interval – This option instructs DB Mail how many seconds it should wait before making a new attempt to reestablish a broken database connection.</p>
Recovery Options for Broken SMTP Communications	<p>Number of Retries – This option instructs DB Mail how many times it should attempt to resend an email message in case the email-server is not responding. This option applies to SMTP email interface only.</p> <p>Retry Interval – This option instructs DB Mail how many seconds it should wait before making a new attempt to resend an email message. This option applies to SMTP email interface only.</p>

**Important note:**

You must restart DB Mail Server before new changes for the Error Handling will take effect

Configuring Self-Healing and Maintenance Options

DB Mail supports the following self-monitoring and healing options



Configuration Option	Description
Check database daemon processes	<p>This option instructs DB Mail to monitor the internal database daemon processes and automatically restart them in case if database daemon process dies as a result of a hung or broken database connection.</p> <p>Note: DB Mail database daemons use internal "heart bit" procedures to periodically report to the DB Mail console their status. DB Mail console then verifies the reported values and if necessary restarts hung or failed daemons.</p> <p>Check frequency– This option controls how often DB Mail checks daemon statuses.</p>
Check message processors	<p>When running as service DB Mail service control process can periodically validate status of the DB Mail Server and internal message queue processors.</p> <p>This option instructs DB Mail service control process to monitor the console and message queue processors and automatically restart them in case if they fail.</p> <p>Note: DB Mail database console uses internal "heart bit" procedures to periodically report to the DB Mail service control process statuses of the message queue processors. If a problem detected DB Mail service control process then automatically restarts the console and effectively all message queue processors.</p> <p>Check frequency– This option controls how often DB Mail checks message queue processor statuses.</p>
Database Maintenance Options	<p>Run DB Mail work table maintenance tasks – This option instructs DB Mail to periodically verify contents of the MAIL_ATTACH work table and purge data left as a result of old undeliverable messages.</p> <p>Monthly, weekly, daily – This option instructs DB Mail how often to</p>

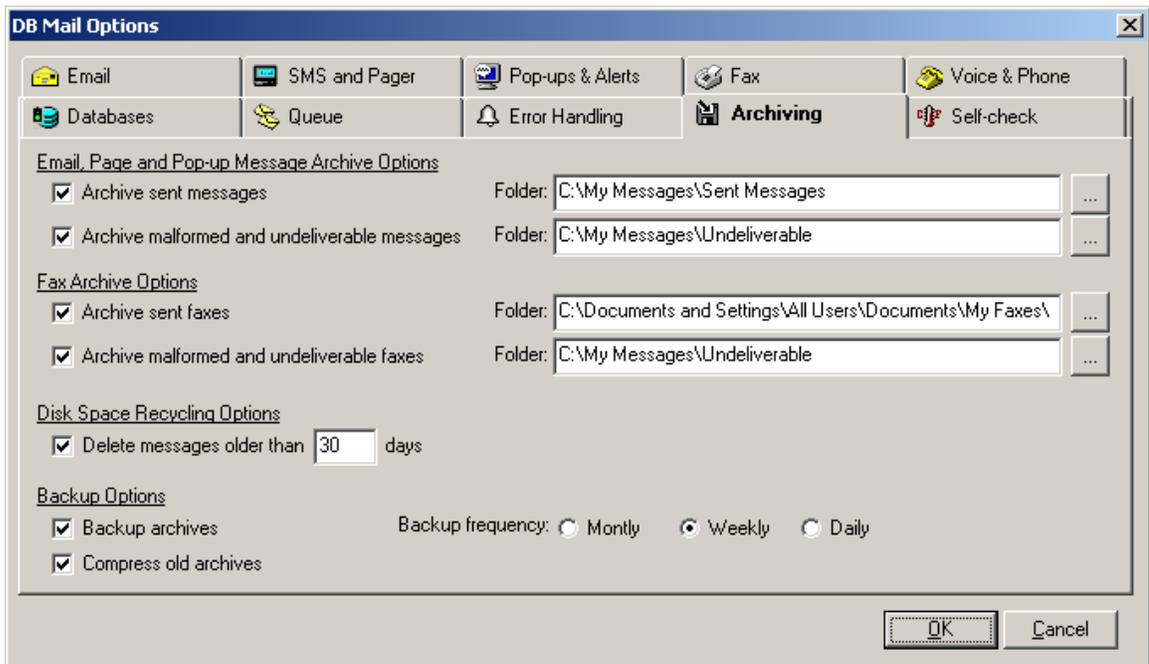
run the work table maintenance procedure.

 **Important note:**

You must restart DB Mail Server before new changes for the Self-Healing and Maintenance Options will take effect

Configuring Archiving Options

DB Mail can optionally log and archive all sent email messages. If archiving is enabled, every message that was successfully sent is appended to the MESSAGE.LOG file in the 'Sent Messages' folder. All undeliverable messages are appended to the MESSAGE.LOG file in the 'Undeliverable' folder. If archive backup option is enabled, DB Mail automatically renames these log files at the specified time and creates new log files as soon as it processes the next email message.



The screenshot shows the 'DB Mail Options' dialog box with the 'Archiving' tab selected. The 'Archiving' tab is highlighted in the top navigation bar. The main area contains several sections:

- Email, Page and Pop-up Message Archive Options:**
 - Archive sent messages. Folder: C:\My Messages\Sent Messages
 - Archive malformed and undeliverable messages. Folder: C:\My Messages\Undeliverable
- Fax Archive Options:**
 - Archive sent faxes. Folder: C:\Documents and Settings\All Users\Documents\My Faxes\
 - Archive malformed and undeliverable faxes. Folder: C:\My Messages\Undeliverable
- Disk Space Recycling Options:**
 - Delete messages older than 30 days
- Backup Options:**
 - Backup archives. Backup frequency: Monthly Weekly Daily
 - Compress old archives

Buttons for 'OK' and 'Cancel' are visible at the bottom right.

Configuration Option	Description
Archive Sent Messages	This option instructs DB Mail to archive all messages sent successfully. Folder option – this is the folder in which DB Mail logs sent messages. You can type the folder name or use the Browse button to select a different folder.
Archive malformed and Undeliverable Messages	This option instructs DB Mail to archive all failed (in other words, undeliverable) messages as well as malformed messages. Folder option – this is the folder in which DB Mail logs undeliverable

	and malformed messages. You can type the folder name or use the Browse button to select a different folder.
Archive Sent Faxes	This option instructs DB Mail to archive all faxes sent successfully. Folder option – this is the folder in which DB Mail logs sent faxes. You can type the folder name or use the Browse button to select a different folder.
Archive malformed and Undeliverable Faxes	This option instructs DB Mail to archive all failed (in other words, undeliverable) faxes as well as malformed messages. Folder option – this is the folder in which DB Mail logs undeliverable and malformed faxes. You can type the folder name or use the Browse button to select a different folder.
Disk space recycling Options	This options allows space recycling by deleting all messages older than the specified number of days
Backup Archives	This option instructs DB Mail to periodically archive message logs. Archived logs are stored in the same directories where they were created. Depending on the value of the Compress Old Archives options, logs are either renamed and stored as .LOG files or renamed and compressed into standard .ZIP files. The name of the archived file is <i>messageMMDDYYYY .log</i> where <i>MMDDYYYY</i> is substituted with month, day and year when the archive was created.
Compress Old Archives	This option instructs DB Mail to stored archived logs as standard .ZIP files.
Backup Frequency	This option instructs DB Mail when to archive current logs and start new ones.



Important note:

You must restart DB Mail Server before new changes for the Archive Options will take effect.

Configuring User-Access and Security

Run DB Mail Database Setup program and then use Manage User Access option to grant/revoke user access. For more information see [Managing user access to DB Mail features](#) topic from the DB Mail installation chapter.

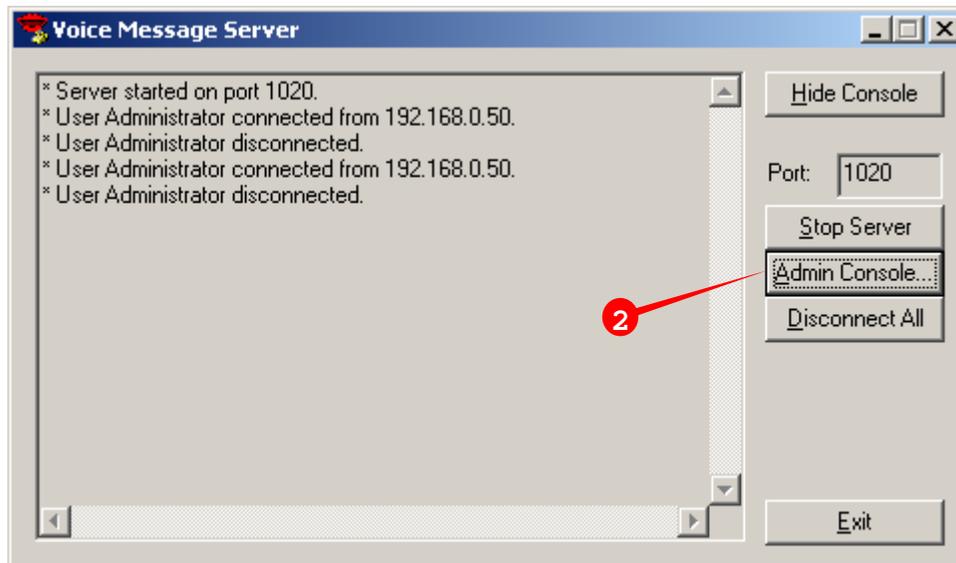
Configuring VoMS Server

VoMS software installation and configuration is only required if you are planning to use DB Mail Voice Messaging functions. In that case you must first install VoMS server software on any Windows 98 or better computer on your network featuring a sound board and either internal or external voice modem or an Intel Dialogic board. This can be the same computer that is running the DB Mail Server or any other computer.

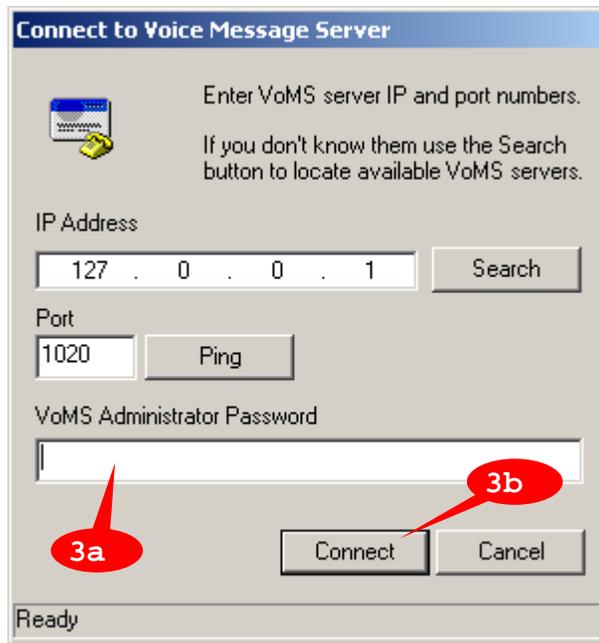
For information on how to install VoMS software see [VoMS Installation](#) topic.

Perform the following steps to configure your VoMS server:

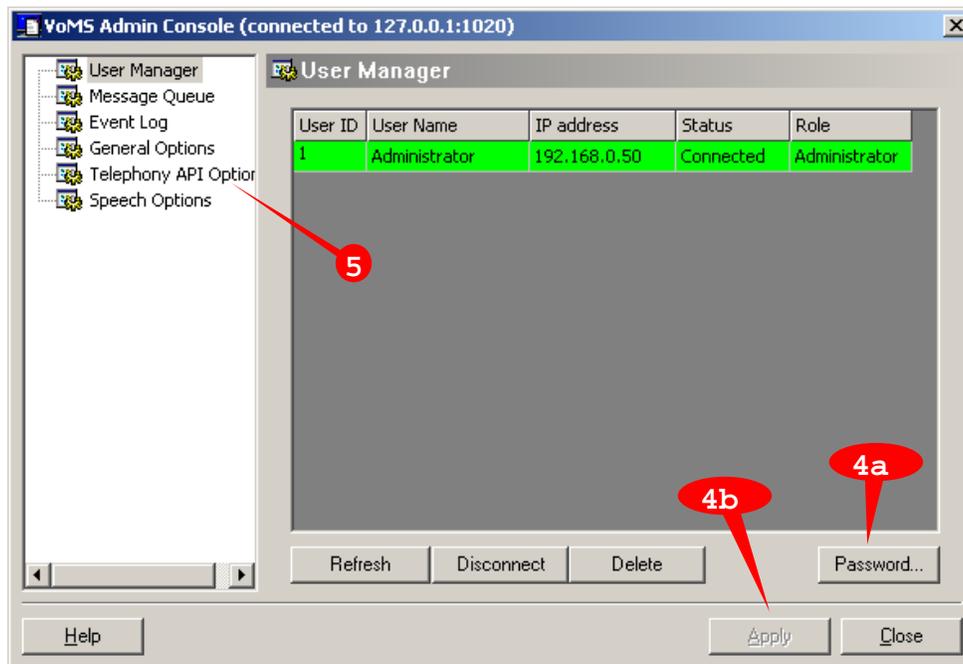
1. If VoMS server is not running you can launch it using VoMS Server shortcut from the DB Mail 2 \ Voice Message Server program group. If the server is already running double-click on the VoMS Server icon displayed in the system tray. This will display the **Voice Message Server** screen as on the following screenshot.



2. Click the **Admin Console** button. This will start the VoMS Administrator Console which will first display the **Connect To Voice Message Server** dialog.



3. If you are connection first time and no password has been set yet skip this part; otherwise type your VoMS Administrator password into the **Password** field. Click the **Connect** button. If the connection is successful the **VoMS Admin Console** screen will appear.

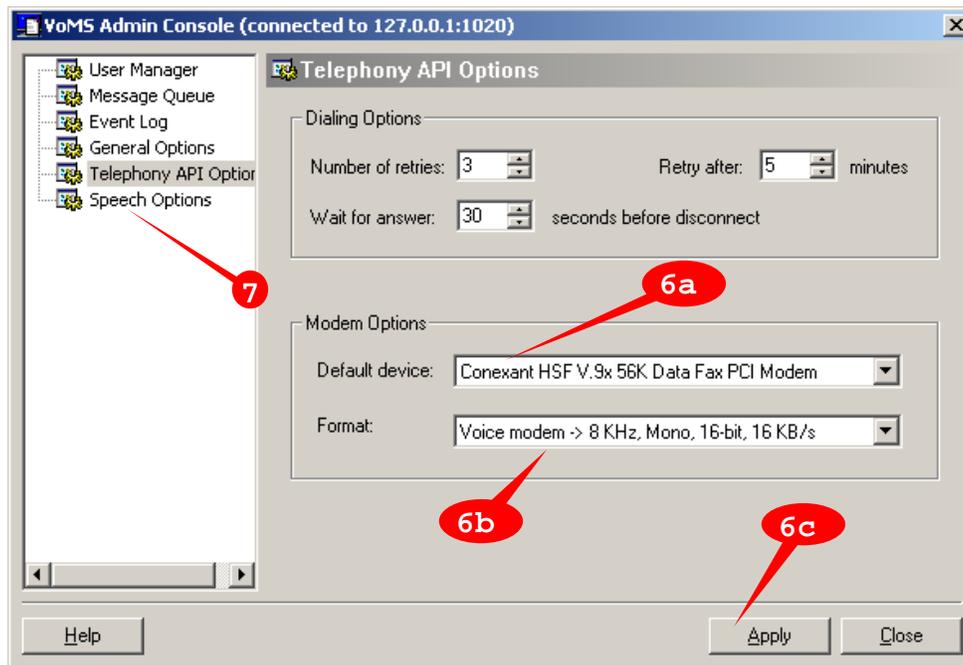


4. Click the **Password** button to set or update VoMS server password. This password will be required for all future connections. The **Set Password** dialog will appear.

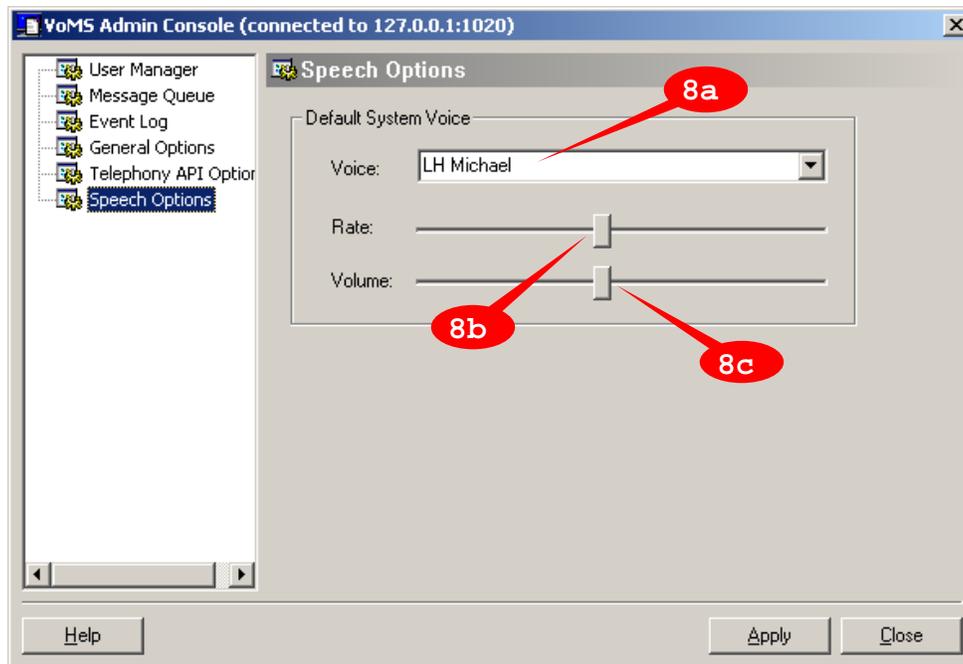


Enter the new password, retype it in the second field and click the OK button to close the dialog. Make sure to click the **Apply** button to save changes.

- Click the **Telephony API Options** item displayed on the left hand side of the VoMS Admin Console screen.



- In the **Default Device** drop-down box select name of the modem you want to use. In case if you have selected an Intel Dialog board change value in the **Format** drop-down list to Dialog board - >11.025 KHz. Click the **Apply** button to save changes.
- Click the **Speech Options** button displayed on the left hand side of the VoMS Admin Console screen.



8. In the **Voice** drop-down box select name of the default system voice you want to use for computer synthesized text-to-speech messages. Using slide-bar controls select **Rate** and **Volume** values that you normally use for pre-recorded sound messages. Click the **Apply** button to save changes.

For information on how to create pre-recorded messages see *Creating pre-recorded sound messages and message segments* topic in *CHAPTER 11, Sending phone/voice messages* of the DB Mail User's Guide.

9. All other options such as log locations, logging levels, queue allocation and message archiving are not really important for the possessing. You can configure them as you see them fit your requirements. When you are done with all changes click the **Close** button to close the VoMS Admin Console.

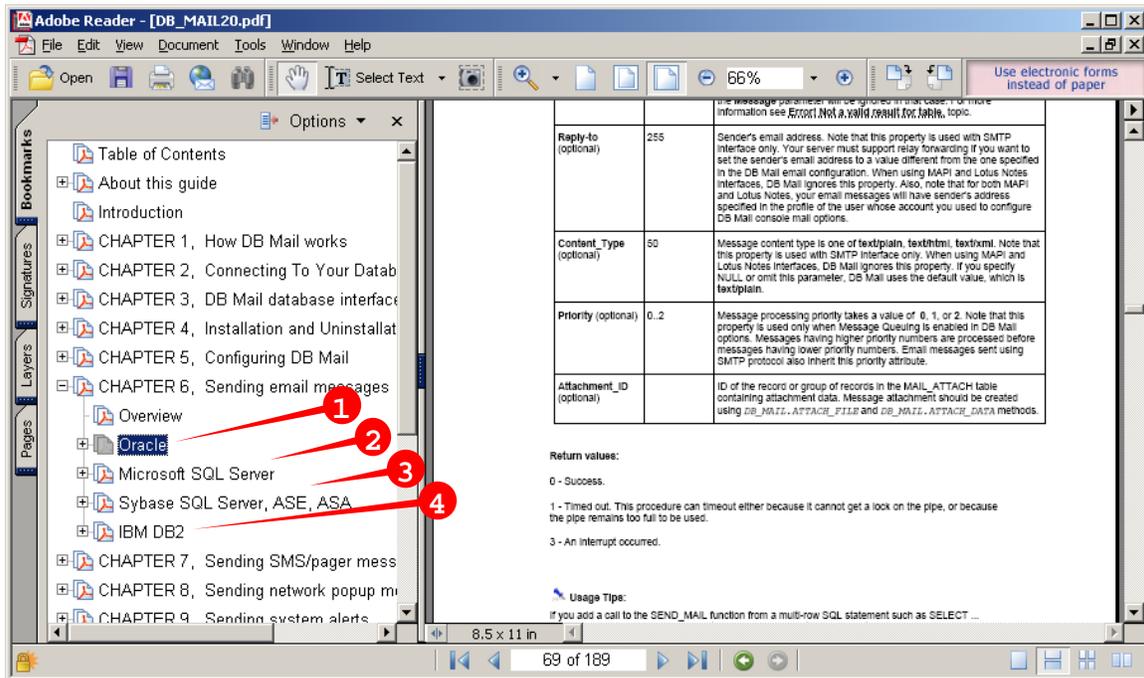
Using DB Mail

After you have successfully installed and configured DB Mail back-end and front-end objects and options you can start using.

If you are new to DB Mail please read the following topics and chapters in the DB Mail User's Guide

1. Message processing workflow in CHAPTER 1, How DB Mail works.
2. CHAPTER 6, Sending email messages
3. CHAPTER 7, Sending SMS/pager messages
4. CHAPTER 8, Sending network popup messages
5. CHAPTER 9, Sending system alerts
6. CHAPTER 10, Sending electronic faxes
7. CHAPTER 11, Sending phone/voice messages
8. CHAPTER 12, Helpful Tips and Recommendations

Each of these chapters has separate topics and examples for each database system. For your convenience and easy of navigation the type of the described database system is clearly marked in the topic title.



DB Mail User's Guide provides over 150 code examples that cover virtually all aspects of DB Mail functionality for all supported platforms and database systems.