Envoy Message Queuing version 1.3

Client Installation Guide

Envoy Message Queuing version 1.3

Client Installation Guide

January, 2002

Envoy Technologies Inc. has made every effort to ensure that the information contained in this document is accurate; however, there are no representations or warranties regarding this information, including warranties of merchantability or fitness for a particular purpose. Envoy Technologies Inc. assumes no responsibility for errors or omissions that may occur in this document. The information in this document is subject to change without prior notice and does not represent a commitment by Envoy Technologies Inc., or its representatives.

The software supplied with this document is the property of Envoy Technologies Inc. and is furnished under a licensing agreement. Neither the software nor this document may be copied or transferred by any means, electronic or mechanical, except as provided in the licensing agreement.

Envoy Message Queuing (Envoy MQ) is a trademark of Envoy Technologies Inc. All other product and company names mentioned herein are for identification purposes only and are the property of, and may be trademarks of, their respective owners.

Envoy Technologies Inc.

Corporate Headquarters

120 Wood Avenue South, Suite #610

Iselin, NJ 08830 USA

Phone: 732-549-6500
Fax: 732-549-3165

Web: http://www.envoytech.com

Tech Support: support@envoytech.com

TABLE OF
CONTENTS

INSTALLATION NOTES

Client on IBM AIX

The Envoy Message Queuing client installation procedure involves installing a server side on Microsoft Windows NT or Windows 2000 (Envoy Message Queuing Connector) and a client side on IBM AIX (Envoy Message Queuing Client). This procedure describes only the client side installation. For instructions on how to install the server side, refer to the *Envoy Message Queuing Connector Administration Guide*.

Prerequisites

- Envoy Message Queuing Connector 1.3
- IBM AIX 4.2 or higher

Package Contents

Envoy Message Queuing client for AIX is distributed in a tar file called AixEMQClient.tar.Z. The file is located in the subdirectory /Clients/Aix. The AixEMQClient.tar.Z file contains the include, lib, samples, and bin directories summarized in

Table 1-1   AIX package contents

Directory	Description
include	This contains Envoy Message Queuing Client for AIX SDK include files. The AIX applications that you write should include the files in this subdirectory using the #include directive in C or C++.
lib	This contains Envoy Message Queuing Client for AIX SDK library. The AIX applications that you write should link to the libfmdqc.a library in the lib directory to resolve references to the MSMQ and Envoy Message Queuing API calls your AIX applications will make.
samples	This contains Envoy Message Queuing Client for AIX SDK sample applications. In the samples/pingpong directory, you will find the program source and make files necessary to build and execute the gwping and gwpong sample applications that are described in Chapter 5 of the *Envoy Message Queuing Programmer's Guide*.
bin	This contains Envoy Message Queuing Client for AIX binary files. In the bin directory, you will find fmqdccfg. The fmqdccfg utility will configure an Envoy Message Queuing client. Refer to the *Envoy Message Queuing Programmer's Guide* for an explanation and detailed usage of this utility.

Installation Instructions

To install the Envoy Message Queuing Client for AIX, FTP the AixEMQClient.tar.Z file from the /Clients/Aix directory on the NT distribution CD-ROM to your AIX system. Then, unpack the archive file into the destination where you wish to install the client. To do this, the following steps should be followed:

1. Change to the Aix Client directory on the distribution CD-ROM. Assuming your CD-ROM is in your D: drive, type:

    ```
    D:
    CD \Clients\Aix
    ```

2. Start FTP, then copy the archive file to your AIX system. Type:

    ```
    FTP myAIX
    ```

    where *myAIX* is the name of your AIX system. Enter your user ID and password correctly when asked to do so by FTP. Type:

    ```
    BIN
    ```

    to tell FTP that you are transferring a binary file. Type:

    ```
    PUT AixEMQClient.tar.Z
    ```

    to transfer the file to AIX and confirm the transfer as needed. Type:

    ```
    BYE
    ```

    to exit FTP.

3. Start a TELNET or XWindows session from your workstation to your AIX system. Type:

    ```
    TELNET myAIX
    ```

    and login normally.

4. Unpack the archive that you placed on the system with FTP. Type:

    ```
    uncompress AixEMQClient.tar.Z
    tar -xvf AixEMQClient.tar
    ```

    to unpack the include, lib, samples, and bin directories into the FMQClient directory.

Installation Verification

Make sure that you have completed the Envoy Message Queuing Connector installation as described in chapter 2 of the *Envoy Message Queuing Connector Administration Guide* before testing the installation.

1. Change to the FMQClient/bin directory and run *fmqdccfg*. Refer to the *Envoy Message Queuing Programmer's Guide* for instructions on configuring the AIX client.

2. Change to the FMQClient/samples/pingpong directory, then follow the installation procedure of the *Envoy Message Queuing Programmer's Guide* to complete and test the installation.

Client on HP-UX

The Envoy Message Queuing client installation procedure involves installing a server side on Microsoft Windows NT or Windows 2000 (Envoy Message Queuing Connector) and a client side on Hewlett-Packard HP-UX (Envoy Message Queuing Client). This procedure describes only the client side installation. For instructions on how to install the server side, refer to the *Envoy Message Queuing Connector Administration Guide.*

Prerequisites

- Envoy Message Queuing Connector 1.3
- HP-UX 11.00 or higher

Package Contents

Envoy Message Queuing Client for HP-UX is distributed in a tar file called HpUxEMQClient.tar.Z. The file is located in the subdirectory /Clients/HPUX. The HpUxEMQClient.tar.Z file contains the include, lib, samples, and bin directories described as follows:

Table 1-2   HP-UX package contents

Directory	Description
include	This contains Envoy Message Queuing Client for HP-UX SDK include files. The HP-UX applications that you write should include the files in this subdirectory using the #include directive in C or C++.
lib	This contains Envoy Message Queuing Client for HP-UX SDK library. The HP-UX applications that you write should link to the libfmdqc.a library in the lib directory to resolve references to the MSMQ and Envoy Message Queuing API calls your HP-UX applications will make.
samples	This contains Envoy Message Queuing Client for HP-UX SDK sample applications. In the samples/pingpong directory, you will find the program source and make files necessary to build and execute the gwping and gwpong sample applications that are described in Chapter 5 of the *Envoy Message Queuing Programmer's Guide*.
bin	This contains Envoy Message Queuing Client for HP-UX binary files. In the bin directory, you will find fmqdccfg.The fmqdccfg utility will configure an Envoy Message Queuing client. Refer to the *Envoy Message Queuing Programmer's Guide* for an explanation and detailed usage of this utility.

Installation Instructions

To install the Envoy Message Queuing Client for HP-UX, FTP the HpUxEMQClient.tar.Z file from the /Clients/HPUX directory on the NT distribution CD-ROM to your HP-UX system. Then, unpack the archive file into the destination where you wish to install the client. To do this, the following steps should be followed:

1. Change to the HP-UX client directory on the distribution CD-ROM. Assuming your CD-ROM is in your D: drive, type:

    ```
    D:
    CD \Clients\HPUX
    ```

2. Start FTP, then copy the archive file to your HP-UX system. Type:

    ```
    FTP myHPUX
    ```

    where *myHPUX* is the name of your HP-UX system. Enter your user ID and password correctly when asked to do so by FTP. Type:

    ```
    BIN
    ```

    to tell FTP that you are transferring a binary file. Type:

    ```
    PUT HpUxEMQClient.tar.Z
    ```

    to transfer the file to HP-UX and confirm the transfer as needed. Type:

    ```
    BYE
    ```

    to exit FTP.

3. Start a TELNET or XWindows session from your workstation to your HP-UX system. Type:

    ```
    TELNET myHPUX
    ```

    and login normally.

4. Unpack the archive that you placed on the system with FTP. Type:

    ```
    uncompress HpUxEMQClient.tar.Z
    tar -xvf HpUxEMQClient.tar
    ```

    to unpack the include, lib, samples, and bin directories into the FMQClient directory.

Installation Verification

Make sure that you have completed the Envoy Message Queuing Connector installation as described in chapter 2 of the *Envoy Message Queuing Connector Administration Guide* before testing the installation.

1. Change to the FMQClient/bin directory and run *fmqdccfg*. Refer to the *Envoy Message Queuing Programmer's Guide* for instructions on configuring the HP-UX client.

2. Change to the FMQClient/samples/pingpong directory, then follow the installation procedure of the *Envoy Message Queuing Programmer's Guide* to complete and test the installation.

Client on HP e3000 MPE/iX

The Envoy Message Queuing client installation procedure involves installing a server side on Microsoft Windows NT or Windows 2000 (Envoy Message Queuing Connector) and a client side on Hewlett-Packard HP e3000 (Envoy Message Queuing Client). This procedure describes only the client side installation. For instructions on how to install the server side, refer to the *Envoy Message Queuing Connector Administration Guide.*

Prerequisites

- Envoy Message Queuing Connector 1.3
- HP e3000 MPE/iX 5.5 or higher

Package Contents

Envoy Message Queuing Client for HP e3000 is distributed in a tar file called HP3KTAR. The file is located in the subdirectory /Clients/Hp3000. The HP3KTAR file contains the include, lib, samples directory described as follows:

Table 1-3   HP e3000 package contents

Directory	Description
FMQCLIENT	This contains Envoy Message Queuing Client for HP e3000 binary and COBOL SDK files. In this directory you will find FMQDCCFG. The FMQDCCFG utility will configure an Envoy Message Queuing Client. Refer to the Envoy Message Queuing Programmer's Guide for an explanation and detailed usage of this utility. The COBOL SDK consists of the Envoy Message Queuing Executable Library (FMQDCXL), COBOL copybook, and COBOL samples.
FMQCLIENT/include	This contains Envoy Message Queuing Client for HP e3000 C SDK include files. The HP e3000 applications that you write should include the files in this subdirectory using the #include directive in C or C++.
FMQCLIENT/lib	This contains Envoy Message Queuing Client for HP e3000 C SDK library. The HP e3000 applications that you write should link to the libfmdqc.a library in the lib directory to resolve references to the MSMQ and Envoy Message Queuing API calls your HP e3000 applications will make.
FMQCLIENT/samples	This contains Envoy Message Queuing Client for HP e3000 C SDK sample applications. In the samples/pingpong directory, you will find the program source and make files necessary to build and execute the gwping and gwpong sample applications that are described in Chapter 5 of the *Envoy Message Queuing Programmer's Guide*.
FMQCLIENT/COBOL	This contains Envoy Message Queuing Client for HP e3000 COBOL SDK. This directory contains sample COBOL programs and COBOL copybooks.

Installation Instructions

To install the Envoy Message Queuing Client for HP e3000, FTP the HP3KTAR file from the /Clients/Hp3000 directory on the NT distribution CD-ROM to your HP e3000 system. Then, unpack the archive file into the destination where you wish to install the client. To do this, the following steps should be followed:

1. Change to the HP e3000 client directory on the distribution CD-ROM. Assuming your CD-ROM is in your D: drive, type:

   ```
   D:
   CD \Clients\Hp3000
   ```

2. Start FTP, then copy the archive file to your HP e3000 system. Type:

   ```
   FTP myHP3000
   ```

   where *myHP3000* is the name of your HP e3000 system. Enter your user ID and password correctly when asked to do so by FTP. Type:

   ```
   BIN
   ```

   to tell FTP that you are transferring a binary file. Type:

   ```
   PUT HP3KTAR
   ```

   to transfer the file to the HP e3000 and confirm the transfer as needed. Type:

   ```
   BYE
   ```

   to exit FTP.

3. Start a TELNET or XWindows session from your workstation to your HP e3000 system. Type:

   ```
   TELNET myHP3000
   ```

   and login normally.

4. Unpack the archive that you placed on the system with FTP. Type:

   ```
   RUN TAR.HPBIN.SYS;INFO="-xvf HP3KTAR"
   ```

   to unpack the include, lib, samples, and bin directories into the FMQClient directory. Note that the -xvf must be in lower case (and remember that UNIX commands are case sensitive).

Installation Verification

1. Change to the FMQClient/bin directory and run *fmqdccfg*. Refer to the *Envoy Message Queuing Programmer's Guide* and *Envoy Message Queuing Client for HP e3000 Guide* for instructions on configuring the HP e3000 client. Here is an example of how to invoke the FMQDCCFG if FMQCLIENT is installed to /SYS/PUB:

   ```
   RUN /SYS/PUB/FMQCLIENT/FMQDCCFG;INFO="-L"
   ```

2. Change to the FMQClient/samples/pingpong directory and run PINGPONG samples, then follow the installation procedure of the *Envoy Message Queuing Programmer's Guide* to complete and test the installation. Here is an example of how to run GWPONG if FMQCLIENT is installed to /SYS/PUB:

   ```
   RUN /SYS/PUB/FMQCLIENT/GWPONG
   ```

Platform Notes

Differences in the HP e3000 Envoy Message Queuing client from the typical UNIX client are outlined here. The behavior of the HP e3000 client follows the *Envoy Message Queuing Programmer's Guide* except as noted here. For further information, refer to the *Envoy Message Queuing Client for HP e3000* documentation.

Environment Variables

To set an environment variable from MPE/iX use the following command:

```
SETVAR FMQROOT "/SYS/PUB"
```

On MPE/iX, path names must use the HFS absolute path name as in "/SYS/PUB". The trailing '/' is optional.

Directory Names

In the *Envoy Message Queuing Programmer's Guide* there are references to the following directory names, "bin", "log", "log/user". Due to the flat nature of the MPE/iX file system, these directories are not used and all files that would normally reside in them will be placed in the directory as specified by the FMQROOT environment variable.

File Names

File names on HP e3000 MPE/iX are limited to eight characters and there are no extensions. In addition files by default are capitalized. The following files have been renamed.

- message table file *msg.tbl* is referred to as "MSGTBL"

- environment file *fmq.env* is referred to as "FMQENV"

- system log file *fmqsys.log* is referred to as "FMQSYSLG"

- user logs in the form of *dc_<pid>.log* are referred to as "dc_<pid>LG"

GWPing and GWPong Samples

The typical code for GWPing and GWPong was modified. The XCONTRAP handling has been added to these samples to allow for CONTROL-Y to terminate these applications. This handling was not added to the Envoy Message Queuing client library and is the responsibility of the programmer to add their own console trap handler.

Make sure that you have completed the Envoy Message Queuing Connector installation as described in chapter 2 of the *Envoy Message Queuing Connector Administration Guide* before testing the installation.

Client on DEC VMS

The Envoy Message Queuing client installation procedure involves installing a server side on Microsoft Windows NT or Windows 2000 (Envoy Message Queuing Connector) and a client side on Compaq Alpha or VAX VMS (Envoy Message Queuing Client). This
procedure describes only the client side installation. For instructions on how to install the server side, refer to the *Envoy Message Queuing Connector Administration Guide*.

Prerequisites

- Envoy Message Queuing Connector 1.3

- Microsoft Windows system with a CD-ROM drive and FTP connection to the VMS site

- DEC TCP/IP or MultiNet for the VMS site to provide TCP/IP transport

The Envoy Message Queuing client for VMS library has been developed and tested in the following configuration:

	Alpha	**VAX**
OS	OpenVMS 6.2	OpenVMS 6.2
Compiler	DECC 5.0 (cc050)	DECC 5.0 (cc050)
TCP/IP	DEC TCP/IP	DEC TCP/IP

Installation Instructions

1. Create a target directory.

2. Use FTP with Binary image to copy the installation save-set EMQ013.A (either VAX or Alpha) into a temporary directory on your machine.

3. Set Default to the created target directory.

4. Execute the following command in the directory containing the installation save-set.

   ```
   set file/attributes=lrl:9216 EMQ013.A
   ```

5. Invoke the install procedure to create the target directory tree and populate it from files in the source directory.

   ```
   @sys$update:vmsinstal fmq <installation directory>
   ```

   The install procedure creates the product directories and puts the product files in place.
   The following directory structure is created:

   ```
   [.bin]
           fmqdccfg.exe
           fmqver.exe
           gwping.exe
           gwpong.exe
   [.include]
           mq.h
           wintype.h
           ostypes.h
           fmqpubd.h
   [.lib]
           fmqdc.olb
   [.samples]
           [.pingpong]
                   makefile.
                   gwping.c
                   gwpong.c
   ```

6.   Run the command procedure fmqlogin.com to setup the logical name FMQROOT and symbols that allow you to run Envoy Message Queuing utilities and samples.

7.   Configure the Envoy Message Queuing client by running the configuration program fmqdccfg. Refer to the *Envoy Message Queuing Programmer's Guide* for instructions on configuring the client.

Setting the Environment

In order to use Envoy Message Queuing client applications you should set the required environment. You do this by running `fmqlogin.com`.

Installation Verification

Make sure that you have completed the Envoy Message Queuing Connector installation as described in chapter 2 of the *Envoy Message Queuing Connector Administration Guide* before testing the installation.

To verify your installation we recommend that you take the time to run the sample ping-pong programs supplied with the product. The sample ping and pong programs can be run as follows:

On one DEC Term:

```
$ GWPong
```

On another DEC Term:

```
$ GWPing -n 10
```

Refer to the *Envoy Message Queuing Programmer's Guide* for instructions on using gwping and gwpong.

Client on Sun Solaris

The Envoy Message Queuing client installation procedure involves installing a server side on Microsoft Windows NT or Windows 2000 (Envoy Message Queuing Connector) and a client side on Sun Microsystems Solaris (Envoy Message Queuing Client). This procedure describes only the client side installation. For instructions on how to install the server side, refer to the *Envoy Message Queuing Connector Administration Guide.*

Prerequisites

- Envoy Message Queuing Connector 1.3

- Sun Microsystems Solaris 2.5 or higher

Package Contents

Envoy Message Queuing Client for Sun Solaris is distributed in a tar file called SolarisEMQClient.tar.Z. The file is located in the subdirectory /Clients/Solaris. The SolarisEMQClient.tar.Z file contains the include, lib, samples, and bin directories described as follows:

Table 1-4   Solaris package contents

Directory	Description
include	This contains Envoy Message Queuing Client for Solaris SDK include files. The Solaris applications that you write should include the files in this subdirectory using the #include directive in C or C++.
lib	This contains Envoy Message Queuing Client for Solaris SDK library. The Solaris applications that you write should link to the libfmdqc.a library in the lib directory to resolve references to the MSMQ and Envoy Message Queuing API calls your Solaris applications will make.
samples	This contains Envoy Message Queuing Client for Solaris SDK sample applications. In the samples/pingpong directory, you will find the program source and make files necessary to build and execute the gwping and gwpong sample applications that are described in Chapter 5 of the *Envoy Message Queuing Programmer's Guide*.
bin	This contains Envoy Message Queuing Client for Solaris binary files. In the bin directory, you will find fmqdccfg.The fmqdccfg utility will configure an Envoy Message Queuing client. Refer to the *Envoy Message Queuing Programmer's Guide* for an explanation and detailed usage of this utility.

Installation Instructions

To install the Envoy Message Queuing Client for Solaris, FTP the SolarisEMQClient.tar.Z file from the /Clients/Solaris directory on the NT distribution CD-ROM to your Solaris system. Then, unpack the archive file into the destination where you wish to install the client. To do this, the following steps should be followed:

1. Change to the Solaris client directory on the distribution CD-ROM. Assuming your CD-ROM is in your D: drive, type:

    ```
    D:
    CD \Clients\Solaris
    ```

2. Start FTP, then copy the archive file to your Solaris system. Type:

    ```
    FTP mySolaris
    ```

    where *mySolaris* is the name of your Solaris system. Enter your user ID and password correctly when asked to do so by FTP. Type:

    ```
    BIN
    ```

    to tell FTP that you are transferring a binary file. Type:

    ```
    PUT SolarisEMQClient.tar.Z
    ```

    to transfer the file to Solaris and confirm the transfer as needed. Type:

    ```
    BYE
    ```

    to exit FTP.

3. Start a TELNET or XWindows session from your workstation to your Solaris system. Type:

    ```
    TELNET mySolaris
    ```

    and login normally.

4. Unpack the archive that you placed on the system with FTP. Type:

    ```
    uncompress SolarisEMQClient.tar.Z
    tar -xvf SolarisEMQClient.tar
    ```

    to unpack the include, lib, samples, and bin directories into the FMQClient directory.

Installation Verification

Make sure that you have completed the Envoy Message Queuing Connector installation as described in chapter 2 of the *Envoy Message Queuing Connector Administration Guide* before testing the installation.

1. Change to the FMQClient/bin directory and run *fmqdccfg*. Refer to the *Envoy Message Queuing Programmer's Guide* for instructions on configuring the Solaris client.

2. Change to the FMQClient/samples/pingpong directory, then follow the installation procedure of the *Envoy Message Queuing Programmer's Guide* to complete and test the installation.

Client on Linux

The Envoy Message Queuing client installation procedure involves installing a server side on Microsoft Windows NT or Windows 2000 (Envoy Message Queuing Connector) and a client side on Linux (Envoy Message Queuing Client). This procedure describes only the client side installation, for instructions on how to install the server side, refer to the *Envoy Message Queuing Connector Administration Guide*.

Prerequisites

- Envoy Message Queuing Connector 1.3

- Linux 2.0.3 or higher

Package Contents

Envoy Message Queuing Client for Linux is distributed in a tar file called LinuxEMQClient.tar.Z. The file is located in the subdirectory /Clients/Linux. The LinuxEMQClient.tar.Z file contains the include, lib, samples, and bin directories described as follows:

Table 1-5   Linux package contents

Directory	Description
include	This contains Envoy Message Queuing Client for Linux SDK include files. The Linux applications that you write should include the files in this subdirectory using the #include directive in C or C++.
lib	This contains Envoy Message Queuing Client for Linux SDK library. The Linux applications that you write should link to the libfmdqc.a library in the lib directory to resolve references to the MSMQ and Envoy Message Queuing API calls your Linux applications will make.
samples	This contains Envoy Message Queuing Client for Linux SDK sample applications. In the samples/pingpong directory, you will find the program source and make files necessary to build and execute the gwping and gwpong sample applications that are described in Chapter 5 of the *Envoy Message Queuing Programmer's Guide*.
bin	This contains Envoy Message Queuing Client for Linux binary files. In the bin directory, you will find fmqdccfg.The fmqdccfg utility will configure an Envoy Message Queuing client. Refer to the *Envoy Message Queuing Programmer's Guide* for an explanation and detailed usage of this utility.

Installation Instructions

To install the Envoy Message Queuing Client for Linux, FTP the LinuxEMQClient.tar.Z file from the /Clients/Linux directory on the NT distribution CD-ROM to your Linux system. Then, unpack the archive file into the destination where you wish to install the client. To do this, the following steps should be followed:

1. Change to the Linux client directory on the distribution CD-ROM. Assuming your CD-ROM is in your D: drive, type:

   ```
   D:
   CD \Clients\Linux
   ```

2. Start FTP, then copy the archive file to your Linux system. Type:

   ```
   FTP myLinux
   ```

   where *myLinux* is the name of your Linux system. Enter your user ID and password correctly when asked to do so by FTP. Type:

   ```
   BIN
   ```

   to tell FTP that you are transferring a binary file. Type:

   ```
   PUT LinuxEMQClient.tar.Z
   ```

   to transfer the file to Linux and confirm the transfer as needed. Type:

   ```
   BYE
   ```

   to exit FTP.

3. Start a TELNET or XWindows session from your workstation to your Linux system. Type:

   ```
   TELNET myLinux
   ```

   and login normally.

4. Unpack the archive that you placed on the system with FTP. Type:

   ```
   uncompress LinuxEMQClient.tar.Z
   tar -xvf LinuxEMQClient.tar
   ```

   to unpack the include, lib, samples, and bin directories into the FMQClient directory.

Installation Verification

Make sure that you have completed the Envoy Message Queuing Connector installation as described in chapter 2 of the *Envoy Message Queuing Connector Administration Guide* before testing the installation.

1. Change to the FMQClient/bin directory and run *fmqdccfg*. Refer to the *Envoy Message Queuing Programmer's Guide* for instructions on configuring the Linux client.

2. Change to the FMQClient/samples/pingpong directory, then follow the installation procedure of the *Envoy Message Queuing Programmer's Guide* to complete and test the installation.

Client on SCO-UNIX

The Envoy Message Queuing client installation procedure involves installing a server side on Microsoft Windows NT or Windows 2000 (Envoy Message Queuing Connector) and a client side on Caldera SCO Open Server (Envoy Message Queuing Client). This procedure describes only the client side installation. For instructions on how to install the server side, refer to the *Envoy Message Queuing Connector Administration Guide.*

Prerequisites

- Envoy Message Queuing Connector 1.3

- Caldera SCO Open Server release 5.x or higher

Package Contents

Envoy Message Queuing Client for SCO-UNIX is distributed in a tar file called ScoEMQClient.tar.Z. The file is located in the subdirectory /Clients/SCO. The ScoEMQClient.tar.Z file contains the include, lib, samples, and bin directories described as follows:

Table 1-6   SCO-UNIX package contents

Directory	Description
include	This contains Envoy Message Queuing Client for SCO-UNIX SDK include files. The SCO-UNIX applications that you write should include the files in this subdirectory using the #include directive in C or C++.
lib	This contains Envoy Message Queuing Client for SCO-UNIX SDK library. The SCO-UNIX applications that you write should link to the libfmdqc.a library in the lib directory to resolve references to the MSMQ and Envoy Message Queuing API calls your SCO-UNIX applications will make.
samples	This contains Envoy Message Queuing Client for SCO-UNIX SDK sample applications. In the samples/pingpong directory, you will find the program source and make files necessary to build and execute the gwping and gwpong sample applications that are described in Chapter 5 of the *Envoy Message Queuing Programmer's Guide*.
bin	This contains Envoy Message Queuing Client for SCO-UNIX binary files. In the bin directory, you will find fmqdccfg.The fmqdccfg utility will configure an Envoy Message Queuing client. Refer to the *Envoy Message Queuing Programmer's Guide* for an explanation and detailed usage of this utility.

Installation Instructions

To install the Envoy Message Queuing Client for SCO-UNIX, FTP the ScoEMQClient.tar.Z file from the /Clients/SCO directory on the NT distribution CD-ROM to your SCO-UNIX system. Then, unpack the archive file into the destination where you wish to install the client. To do this, the following steps should be followed:

1. Change to the SCO client directory on the distribution CD-ROM. Assuming your CD-ROM is in your D: drive, type:

    ```
    D:
    CD \Clients\SCO
    ```

2. Start FTP, then copy the archive file to your SCO-UNIX system. Type:

    ```
    FTP mySCO
    ```

    where *mySCO* is the name of your SCO-UNIX system. Enter your user ID and password correctly when asked to do so by FTP. Type:

    ```
    BIN
    ```

    to tell FTP that you are transferring a binary file. Type:

    ```
    PUT ScoEMQClient.tar.Z
    ```

    to transfer the file to SCO-UNIX and confirm the transfer as needed. Type:

    ```
    BYE
    ```

    to exit FTP.

3. Start a TELNET or XWindows session from your workstation to your SCO-UNIX system. Type:

    ```
    TELNET mySCO
    ```

    and login normally.

4. Unpack the archive that you placed on the system with FTP. Type:

    ```
    uncompress ScoEMQClient.tar.Z
    tar -xvf ScoEMQClient.tar
    ```

    to unpack the include, lib, samples, and bin directories into the FMQClient directory.

Installation Verification

Make sure that you have completed the Envoy Message Queuing Connector installation as described in chapter 2 of the *Envoy Message Queuing Connector Administration Guide* before testing the installation.

1. Change to the FMQClient/bin directory and run *fmqdccfg*. Refer to the *Envoy Message Queuing Programmer's Guide* for instructions on configuring the SCO-UNIX client.

2. Change to the FMQClient/samples/pingpong directory, then follow the installation procedure of the *Envoy Message Queuing Programmer's Guide* to complete and test the installation.

Client on Tru64 UNIX

The Envoy Message Queuing client installation procedure involves installing a server side on Microsoft Windows NT or Windows 2000 (Envoy Message Queuing Connector) and a client side on Compaq Tru64 UNIX (Envoy Message Queuing Client). This procedure describes only the client side installation. For instructions on how to install the server side, refer to the *Envoy Message Queuing Connector Administration Guide.*

Prerequisites

- Envoy Message Queuing Connector 1.3

- Compaq Tru64 UNIX release 5.x or higher

Package Contents

Envoy Message Queuing Client for Tru64 UNIX is distributed in a tar file called Tru64EMQClient.tar.Z. The file is located in the subdirectory /Clients/Tru64. The Tru64EMQClient.tar.Z file contains the include, lib, samples, and bin directories described as follows:

Table 1-7   Tru64 UNIX package contents

Directory	Description
include	This contains Envoy Message Queuing Client for Tru64 UNIX SDK include files. The Tru64 UNIX applications that you write should include the files in this subdirectory using the #include directive in C or C++.
lib	This contains Envoy Message Queuing Client for Tru64 UNIX SDK library. The Tru64 UNIX applications that you write should link to the libfmdqc.a library in the lib directory to resolve references to the MSMQ and Envoy Message Queuing API calls your Tru64 UNIX applications will make.
samples	This contains Envoy Message Queuing Client for Tru64 UNIX SDK sample applications. In the samples/pingpong directory, you will find the program source and make files necessary to build and execute the gwping and gwpong sample applications that are described in Chapter 5 of the *Envoy Message Queuing Programmer's Guide*.
bin	This contains Envoy Message Queuing Client for Tru64 UNIX binary files. In the bin directory, you will find fmqdccfg.The fmqdccfg utility will configure an Envoy Message Queuing client. Refer to the *Envoy Message Queuing Programmer's Guide* for an explanation and detailed usage of this utility.

Installation Instructions

To install the Envoy Message Queuing Client for Tru64 UNIX, FTP the Tru64EMQClient.tar.Z file from the /Clients/Tru64 directory on the NT distribution CD-ROM to your Tru64 UNIX system. Then, unpack the archive file into the destination where you wish to install the client. To do this, the following steps should be followed:

1. Change to the Tru64 client directory on the distribution CD-ROM. Assuming your CD-ROM is in your D: drive, type:

    ```
    D:
    CD \Clients\Tru64
    ```

2. Start FTP, then copy the archive file to your Tru64 UNIX system. Type:

    ```
    FTP myTru64
    ```

    where *myTru64* is the name of your Tru64 UNIX system. Enter your user ID and password correctly when asked to do so by FTP. Type:

    ```
    BIN
    ```

    to tell FTP that you are transferring a binary file. Type:

    ```
    PUT Tru64EMQClient.tar.Z
    ```

    to transfer the file to your Tru64 system and confirm the transfer as needed. Type:

    ```
    BYE
    ```

    to exit FTP.

3. Start a TELNET or XWindows session from your workstation to your Tru64 system. Type:

    ```
    TELNET myTru64
    ```

    and login normally.

4. Unpack the archive that you placed on the system with FTP. Type:

    ```
    uncompress Tru64EMQClient.tar.Z
    tar -xvf Tru64EMQClient.tar
    ```

    to unpack the include, lib, samples, and bin directories into the FMQClient directory.

Installation Verification

Make sure that you have completed the Envoy Message Queuing Connector installation as described in chapter 2 of the *Envoy Message Queuing Connector Administration Guide* before testing the installation.

1. Change to the FMQClient/bin directory and run *fmqdccfg*. Refer to the *Envoy Message Queuing Programmer's Guide* for instructions on configuring the Tru64 UNIX client.

2. Change to the FMQClient/samples/pingpong directory, then follow the installation procedure of the *Envoy Message Queuing Programmer's Guide* to complete and test the installation.

Client on IBM OS/400

The Envoy Message Queuing client installation procedure involves installing a server side on Microsoft Windows NT or Windows 2000 (Envoy Message Queuing Connector) and a client side on IBM AS/400 (Envoy Message Queuing Client). This procedure describes only the client side installation. For instructions on how to install the server side, refer to the *Envoy Message Queuing Connector Administration Guide.*

Make sure that you have completed the Envoy Message Queuing Connector installation as described in chapter 2 of the *Envoy Message Queuing Connector Administration Guide* before testing the installation.

Prerequisites

- Envoy Message Queuing Connector 1.3

- IBM OS/400 V3R2M0 or higher

- Microsoft Windows system with a CD-ROM drive and FTP connection to the AS/400

Package Contents

The AS/400 client library is distributed in a compressed save (SAVF) file for AS/400 CISC (V3R2M0) and RISC (V3R7M0) and higher systems. On the Envoy Message Queuing installation CD-ROM, the save file is called EMQ.LIB. There are two versions of the file, which are located in:

- \Clients\OS400\V3R2 For OS/400 V3R2 and higher

- \Clients\OS400\V3R7 For OS/400 V3R7 and higher

The only significant difference between the versions is for RPG programming (see **Chapter 3, RPG Interface**, in *Envoy Message Queuing Client for AS/400 Programmers Guide*). In the V3R7 version, you can use long RPG names for the Envoy Message Queuing API identifiers. The long names are convenient because they are very similar to the identifiers in the native C Language API.

Installation Instructions

Follow the instructions below to install the Envoy Message Queuing Client on your AS/400.

1. From a Microsoft Windows system with a CD-ROM drive and an FTP connection to the AS/400, start Telnet or another terminal emulation program.

2. Logon to the AS/400 using the QSECOFR user profile.

3. Run the following CL command to create an empty save file (SAVF) on the AS/400:

   ```
   CRTSAVF FILE(QGPL/EnvoyMQ)
   ```

4. Insert the Envoy Message Queuing CD-ROM in the drive.

5. Start an FTP program and send the save file to the AS/400. The following is an example for a command-line FTP client. The example assumes that the CD-ROM is in drive d:

   ```
   OPEN
   USER: QSECOFR
   PASSWORD: ******
   LCD d:\clients\OS400\V3Rx
   CD QGPL
   BINARY
   PUT EnvoyMQ.LIB EnvoyMQ
   ```

6. Run the following command on the AS/400 to restore the library from the save file:

```
RSTLIB SAVLIB(EnvoyMQ) DEV(*SAVF) SAVF(QGPL/EnvoyMQ) +
MBROPT(*ALL) ALWOBJDIF(*ALL)
```

Refer to the *Envoy Message Queuing Client for AS/400 Programming Guide* for instructions on configuring the AS/400 client.

Client on IBM OS/390

The Envoy Message Queuing client installation procedure involves installing a server side on Microsoft Windows NT or Windows 2000 (Envoy Message Queuing Connector) and a client side on IBM OS/390 (Envoy Message Queuing Client). This procedure describes only the client side installation. For instructions on how to install the server side, refer to the *Envoy Message Queuing Connector Administration Guide.*

Prerequisites

- Envoy Message Queuing Connector 1.3
- IBM OS/390 V2R4 or higher
- COBOL for MVS V2R1 or later if using Envoy Message Queuing calls from COBOL
- Microsoft Windows system with a CD-ROM drive and FTP connection to OS/390

Package Contents

The package contains the following.

Table 1-8   Package contents for OS/390

Package File	Description
FMQLOAD	XMIT Packaged Load library
FMQPROC	XMIT Packaged Procedure library
FMQPAN	XMIT Packaged ISP Panel library
FMQMSG	XMIT Packaged ISP Message library
FMQIMP	XMIT Packaged Envoy Message Queuing DLL Import Statements
FMQINC	XMIT Packaged C Header Files
FMQSAMP	XMIT Packaged C Sample Programs
FMQCBLC	XMIT Packaged COBOL Copybooks
FMQCBLS	XMIT Packaged COBOL Sample Programs

Installation Instructions

1. Transfer all package files to the target MVS system using binary FTP or equivalent program.

   Note that you may need to pre-allocate the target files to ensure that they are FB LRECL=80 BLKSIZE=3120.

2. Use TSO RECEIVE to unpack each file.

Note: By default, the data sets will restore using an HLQ of FALCON2.FMQDC. If you will not be using the HLQ you should specify the target data set name during the receive. The HLQ specified should match the ++HLQ++ used in subsequent installation steps.

You should have:

```
++HLQ++.LOADLIB     DSORG=PO,RECFM=U,LRECL=0,BLKSIZE=6144
++HLQ++.PROCLIB      DSORG=PO,RECFM=FB,LRECL=255,BLKSIZE=2550
++HLQ++.PANELS       DSORG=PO,RECFM=FB,LRECL=80,BLKSIZE=3120
++HLQ++.MSGS           DSORG=PO,RECFM=FB,LRECL=80,BLKSIZE=3120
++HLQ++.IMPORTS     DSORG=PS,RECFM=FB,LRECL=80,BLKSIZE=3120
++HLQ++.INCLUDE     DSORG=PO,RECFM=FB,LRECL=80,BLKSIZE=3120
++HLQ++.SAMPLES    DSORG=PO,RECFM=FB,LRECL=80,BLKSIZE=3120
++HLQ++.CBLCOPY     DSORG=PO,RECFM=FB,LRECL=80,BLKSIZE=3120
++HLQ++.CBLSAMP     DSORG=PO,RECFM=FB,LRECL=80,BLKSIZE=3120
```

3. An Envoy Message Queuing client requires the following files for operation.

   - FMQCFG - Envoy Message Queuing Configuration File

   - FMQENV - Envoy Message Queuing Environment Variables

   - FMQMSG - Envoy Message Queuing Error Message File

   - FMQCP - Envoy Message Queuing Code Page File

   - FMQSLOG - Envoy Message Queuing Error Log File

   Use member DSDEFS in FALCON2.FMQDC.PROCLIB to define the VSAM clusters required.

   Note that you may share these files between MVS images.

Configuration

1. Edit and Run clist FQMCONF in FALCON2.FMQDC.PROCLIB. This drives the Falcon2 configuration system.

2. From the primary panel, select option (1) to configure an Envoy Message Queuing Connector.

   The following fields are mandatory:

   - **Server Name:** This is the name by which the Envoy Message Queuing Connector is known. If you use the Envoy Message Queuing Connector API call, you will use this name.

   - **Network Node:** The IP address of the Envoy Message Queuing Connector system.

   - **Network Port:** The port used by the Envoy Message Queuing Connector. By default this is 1100although your installation may have changed this.

   - **Timeout:** This is the value in seconds, that the client will use to wait for a response from the server. Note that a value of 0 will almost certainly cause any Envoy Message Queuing client request to fail. 60 seconds should be sufficient.

   Optional fields are:

   - **Domain:** The name of the Envoy Message Queuing Connector's NT domain.

   - **NT UserID:** A valid NT user ID to validate calls to the server.

3. When this is complete, select option (2) to set this as your default server.

   The default server is the Envoy Message Queuing Connector that will be used by application programs NOT using the Envoy Message Queuing Connector API call. Note that option (2) provides a server status.

   A status of ACTIVE indicates a fully configured, active Envoy Message Queuing Connector connection.

   A status of INACTIVE indicates an Envoy Message Queuing Connector that is not currently available.

   A status of NOT_CONFIGURED indicates an incomplete configuration. Perhaps a code page has not been downloaded.

4. Once the default server has been defined you will need to download a suitable code page from the server. This is done with option (3). Make sure the code page you select is defined on your server.

5. Once the code page has been successfully downloaded you may return to option (2) and the server should show a status of ACTIVE.

Envoy Message Queuing is now ready for use in TSO or Batch.

Installing CICS Support

Programs written for Envoy Message Queuing may run unchanged in either CICS or batch. To install Envoy Message Queuing support within a CICS region do the following:

1. Add the LOADLIB to the CICS DFHRPL concatenation.

2. Using DFHCSDUP, add the resources defined in the CICSDEF member of the PROCLIB to your CICS region.

3. Install the FMQDC group.

Envoy Message Queuing is now ready for use in CICS.

LPA Considerations: All Envoy Message Queuing DLLs are re-entrant and LPA eligible. If you are planning on using Envoy Message Queuing services from multiple address spaces we recommend adding FMQDC and L8UTIL to the LPA.

Compiling Envoy Message Queuing Programs

Using the Envoy Message Queuing API requires the header files supplied in the FMQINC library as well as the import definitions supplied in the FMQIMP file. The FMQPROC library contains procedure FMQBLD for compiling and linking Envoy Message Queuing C language programs. This procedure should be copied to an installation specific proclib. (Note that FMQPROC is defined as LRECL=255 and cannot be used in a proclib concatenation). The proclib also contains FMQCC which builds the supplied sample programs GWPING and GWPONG.

Running Envoy Message Queuing Programs

Make sure that you have completed the Envoy Message Queuing Connector installation as described in chapter 2 of the *Envoy Message Queuing Connector Administration Guide* before testing the installation.

Programs compiled using the supplied procedures are binary compatible between TSO, Batch, and CICS.

 To run an Envoy Message Queuing program under Batch the following DD cards must be supplied to the JCL:

- `FMQCFG`: The Envoy Message Queuing Configuration File
- `FMQENV`: The Envoy Message Queuing Environment Variables
- `FMQMSG`: The Envoy Message Queuing Error Message File
- `FMQCP`: The Envoy Message Queuing Code Page File
- `FMQSLOG`: The Envoy Message Queuing Error Log File

To run the same program under TSO requires that the same DD cards are allocated to your TSO session.

To run the same program under CICS requires CICS PPT and PCT definitions for both the program and a transaction. The files represented by the DD cards should have been defined to CICS during installation of the Envoy Message Queuing client.

Index

P

package contents
    AIX 1-1
    HP-UX 1-3

S

SCO-UNIX
    client on 1-14
Sun Solaris
    client on 1-10

V

VAX
    client on 1-8
VMS library 1-8