

PeopleLink IM Server Installation Guide

Database Configuration Notes

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1 Introduction

This document describes the installation procedures for the PeopleLink IM (PLIM) Server Platform. All sections assume that the reader is a Systems Administrator or other person who has a basic working knowledge of the database used with PLIM Server.

2 Minimum Hardware and Software Requirements

To install PLIM Server, you must have one of the following configurations installed:

Solaris / SPARC

- SunOS 2.6, 2.7, 2.8
- Sun JDK 1.2.2, 1.3.x
- 256 MB RAM (512+ recommended)

Windows x86

- Windows 98/NT/2000/XP
- Sun JDK 1.2.2, 1.3.x
- 256 MB RAM (512+ recommended)

Linux Intel x86 Based System

- Redhat 6.2, 7.x, 8
- Sun JDK 1.2.2, 1.3.x
- 256 MB RAM (512+ recommended)

3 Server Installation

3.1 Linux/SunOS – Console Mode

From a shell prompt, go to the directory where you saved `PLIMsetup.bin`, and type:

```
sh PLIMsetup.bin
```

Follow the prompts and go to Section 4, “Database Installation.”

3.2 Windows

Go to the folder where you saved `PLIMsetup.exe`, double click the icon to start installation.

Follow the prompts and go to Section 4, “Database Installation.”

4 Database Installation

After you have run through the setup process, there will be a folder called “database” in the directory where you installed the program.

A script has been provided (`im_schema.sql`) that contains the entire schema required by the PLIM Server. This script is specific to the database you picked during installation. A qualified DBA or someone familiar with your database should install the database schema.

These are suggested installation directions. You may want to look through the script and make modifications as necessary for your own database.

You will need to obtain the necessary type IV JDBC drivers for your database, and add them to your java classpath.

Skip to the next section that pertains to your database.

Note: In the following directions, `CommServer_DB` is used as the name of the database/schema, and `imuser` is used as the login/user name that the PLIM Server will use;. The `im_schema.sql` script will contain the values you set for these during the installation of the PLIM Server. Edit the `im_schema.sql` script (or reinstall) to change the values in the script.

4.1 Oracle 8i/9i

Oracle provides type 4 JDBC drivers with its database. They should be named `classes12.zip`. For more information, you can visit Oracle’s website at <http://www.oracle.com/>.

Follow these steps to install the schema to your Oracle Database:

1. Log into sqlplus as the sys user.
2. To load the schema, type: `@apps_schema.sql`.
3. Enter the following information when prompted:
 - a. Sys password
 - b. Username (of the user who will own the schema) : `imuser`
 - c. Password (of the user who will own the schema) : `pass`
 - d. Connect string for the database where the schema will be installed :
 - e. Role Name (*This role is created so that other users can easily be granted access to the schema.*)
4. The schema will be installed automatically. When installation is complete, the system will return to a prompt.
5. Make sure you add your JDBC drivers to your classpath. The drivers are normally in a zipfile named `classes12.zip`.

4.2 Microsoft SQL Server 2000

Microsoft provides a free JDBC driver that has been tested with PLIM Server.

You can obtain the drivers at:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=4f8f2f01-1ed7-4c4d-8f7b-3d47969e66ae&DisplayLang=en>

Note: The PLIM Server uses SQL Server Authentication, not Windows Authentication.

Follow these steps to install the schema to your Microsoft SQL Server 2000 Database:

1. Create a new database called `CommServer_DB` using the Enterprise Manager.
2. Open SQL Query Analyzer and select the `CommServer_DB` database.
3. Open the `im_schema.sql` script file and press F5 to run the script. Alternately, you can open the file in notepad and cut and paste it into the SQL Query Analyzer.
4. The script creates the necessary tables, indexes, and stored procedures. It also creates a user called `imuser` with permissions to the database.
5. Make sure you add your JDBC drivers to your classpath. The drivers are in several jar files (`msbase.jar`, `mssqlserver.jar`, and `msutil.jar`) and should all be in your classpath.

4.3 PostgreSQL 7.3.x

A PostgreSQL JDBC driver has been provided with your distribution and will be added to your classpath automatically as a convenience. If you are interested in more information about this driver or PostgreSQL itself, please go to <http://www.postgresql.com/>.

When you see brackets (“[]”), you are expected to replace them the information described in the brackets. For example, if your database host IP is 127.0.0.01, “[HOST]” becomes “127.0.0.01”

Follow these steps to install the schema to your PostgreSQL 7.3.x Database:

1. Make sure you are logged in as the postgres administrator. This is normally the user named `postgres`.
2. Create a new user. This is the user the PLIM Server will use when connected to the database.

```
createuser -P -h [HOST] imuser
```

Select a password when prompted. When asked if the new user be allowed to create databases or new users, you can answer no.

3. Create a new database.

```
createdb -W -h [HOST] CommServer_DB
```

When you are prompted for the password, enter the password of the PostgreSQL administrator.
If you have not assigned a password for this user, then just press enter to continue.

4. Import the `im_schema.sql` database script into your new database.

```
psql -q -W -h [HOST] CommServer_DB < ./im_schema.sql
```

This is an example of what a properly completed installation looks like:

```
[postgres@dbserver postgres]$ createuser -P -h 127.0.0.1 imuser
Enter password for user "imuser":
Enter it again:
Shall the new user be allowed to create databases? (y/n) n
Shall the new user be allowed to create more new users? (y/n) n
CREATE USER
[postgres@dbserver postgres]$ createdb -W -h 127.0.0.1 CommServer_DB
Password:
CREATE DATABASE
postgres@dbserver postgres]$ psql -h 127.0.0.1 CommServer_DB < ./im_schema.sql
[postgres@dbserver postgres]$
```

5 Testing the Installation

Once you have installed the schema of the database, you are ready to test the installation of the PLIM Server.

5.1 Linux/ SunOS – Console Mode

1. Open your favorite shell and go to the directory where you installed the PLIM Server.
2. To start the PLIM Server, type the command

```
sh ./runss.sh
```

```
[joesmit@imserver joesmit]$ cd /usr/local/PLIMServer
[joesmit@imserver PLIMServer]$ sh ./runss.sh console
Using Default IM License
Licensed instant messaging users count is 10
Single server version 5.3, build14, June 2 2003 started
Connect to MS 127.0.0.1 5666
Single server version 5.3, build 14, June 2 2003 is started...
PeopleLink Communication Server Started up.
>
```

To stop the server, type `exit` and press enter.

5.2 Linux/ SunOS – Background Mode

1. Open your favorite shell and go to the directory where you installed the PLIM Server.
2. To start the PLIM Server, type the command

```
nohup sh ./runss.sh & > /dev/null
```

```
[joesmit@imserver joesmit]$ cd /usr/local/PLIMServer
```

```
[joesmit@imserver PLIMServer]$ nohup sh ./runss.sh & > /dev/null  
[1] 28863  
[joesmit@imserver PLIMServer]$ nohup: appending output to `nohup.out`  
[joesmit@imserver PLIMServer]$
```


5.3 Windows (NT/2000/XP)

1. Open the cmd shell. You can do this simply by going to Start -> Run, typing the word cmd and clicking Ok
2. Go to the directory where you installed the PLIM Server.
3. To start the PLIM Server, type the command
runss.bat

Expected Output

```
C:\Program Files\PLIM Server>runss  
Using Default IM License  
Licensed instant messaging users count is 10  
Single server version 5.3, build 14, June 2 2003 started  
Connect to MS 127.0.0.1 5666  
Initializing Single server version 5.3, build 14, June 2 2003 ...Single server  
version 5.3, build 14, June 2 2003 is started...  
  
PeopleLink Communication Server Started up.  
>
```

To stop the server, type `exit` and press enter.



6 User Management

These stored procedures have been provided for you to help manage users with the PLIM Server.

Note: Unless otherwise stated, the parameter `partner_id` is always set to 0.

Name	Parameters	Description
register_user	partner_id (numeric), login (varchar), email (varchar), password (varchar)	Registers a new user if the user is not already registered. This is required to register a new user. Returns the numeric User_ID of loginname. <pre>register_user (0, '<login>', '<password>', '<email>')</pre> <p>Oracle: Implemented as a function PostgreSQL: Implemented as a function MS SQL Server: Implemented as a stored procedure</p>
set_data	userid (numeric), partner_id (numeric), login (varchar), first name (varchar), last name (varchar), zip (varchar), gender (char), birthdate (date)	Sets Personal Information for a specific user based on a User_ID or Login This is NOT required to register a new user. <pre>set_data (null, 0, '<login>', '<firstName>', '<last name>', '<zip code>', '<gender>', '<birthdate>')</pre> <p>OR</p> <pre>set_data (3, 0, '<login>', '<firstName>', '<last name>', '<zip code>', '<gender>', '<birthdate>')</pre> <p>Oracle: Implemented as a stored procedure in Package "profile" PostgreSQL: Implemented as a function MS SQL Server: Implemented as a stored procedure</p>

7 Tuning

This section describes optional tuning for your system to increase performance. It is meant to be used if you have many processes running on the same server and/or have purchased a license for additional concurrent users.

7.1 SunOS tuning

1. Make sure the server meets the Minimum System Requirements as described in this document.
2. Set up the following OS variables:

```
/etc/rc2.d/S69inet
  ndd -set /dev/tcp tcp_time_wait_interval 60000
/etc/system
  set rlim_fd_max=20000
  set tcp:tcp_conn_hash_size=262144
```

3. Reboot the server.

7.2 Linux OS tuning:

1. In `/etc/security/limits.conf`, add the lines:

```
*      soft    nofile  1024
*      hard    nofile  16384
```

2. In `/etc/pam.d/login`, add:

```
session required /lib/security/pam_limits.so
```

3. Increase the system-wide file descriptor limit by adding the following three lines to the `/etc/rc.d/rc.local` startup script:

```
echo 32768 > /proc/sys/fs/file-max
echo 65536 > /proc/sys/fs/inode-max
```