



Instalación y configuración de un servidor de mensajería

Integrantes: Altamirano, Sergio (sergio_md_altamirano@yahoo.com.ar)

Campagnoni, Gustavo (gcampag@yahoo.com.ar)

Zufiaurre, Hugo (hugo_zufiaurre@yahoo.com.ar)

GNU/Linux – Nivel 1 – Laboratorio GUGLER

Universidad Autónoma de Entre Ríos, Oro Verde

Facultad de Ciencia y Tecnología

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Introducción:

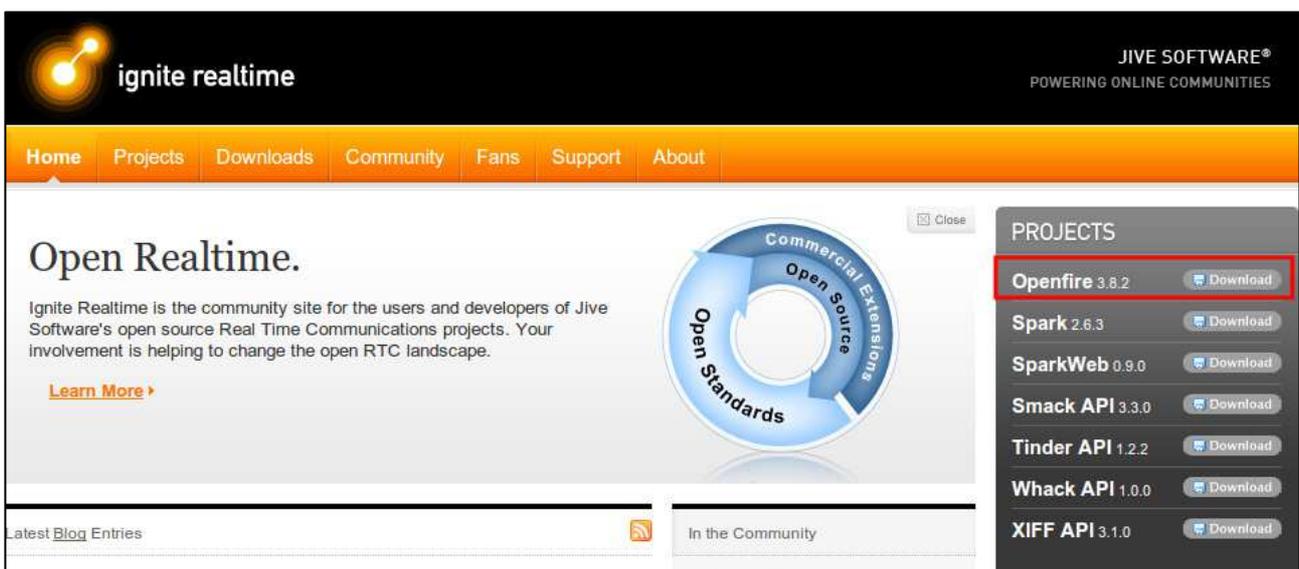
Openfire es un sistema de mensajería instantánea escrito en Java que provee licencias comerciales y GNU y que utiliza el protocolo [JABBER/XMPP](#).

Con el se puede administrar usuarios, grupos, compartir archivos, enviar y recibir mensajes, auditar mensajes, mensajes offline, mensajes broadcast, etc.

A continuación veremos un resumen de los pasos mas importantes para instalar y configurar un servidor de mensajería OPENFIRE.

Descarga del paquete de instalación:

Web del proyecto: <http://www.igniterealtime.org/>



The screenshot shows the Ignite Realtime website. The navigation bar includes Home, Projects, Downloads, Community, Fans, Support, and About. The main content area features the "Open Realtime." header and a "Learn More" link. A circular diagram illustrates the relationship between Open Standards, Open Source, and Commercial Extensions. On the right, a "PROJECTS" sidebar lists various projects with "Download" buttons. The "Openfire 3.8.2" entry is highlighted with a red box.

Project Name	Version	Download
Openfire	3.8.2	Download
Spark	2.6.3	Download
SparkWeb	0.9.0	Download
Smack API	3.3.0	Download
Tinder API	1.2.2	Download
Whack API	1.0.0	Download
XIFF API	3.1.0	Download

Elegimos el paquete correspondiente:

(el paquete que se descarga en el ejemplo es el .deb para ser utilizado en DEBIAN o UBUNTU)



The screenshot shows the Openfire 3.8.2 download page. The page includes a navigation bar with links for Plugins, Readme, License, Changelog, Nightly Builds, and Source Code. The main content area features the Openfire logo and a description of the software. Below the description, there are three buttons for "Choose your platform": Windows, Linux, and Mac. A table lists the available packages for download, with the "openfire-3.8.2-all.deb" package highlighted in red.

Package Name	Description	Release Date	Size
openfire-3.8.2-1.i386.rpm	RPM for Red Hat Linux and variants	May 28, 2013	50.78 MB
openfire-3.8.2-all.deb	Debian package, no Java JRE	May 28, 2013	12.31 MB
JSopenfire-3.8.2-ALL.pkg.gz	Solaris package, no Java JRE	May 28, 2013	8.33 MB
openfire-3.8.2.tar.gz	Works on most Unix variants, no Java JRE	May 28, 2013	7.51 MB

Instalación:

- Buscamos la carpeta donde tenemos el instalador:

```
$ cd /home/usuario/instaladores/
```

- Instalamos el paquete .deb:

```
$ sudo dpkg -i openfire_3.8.2_all.deb
```

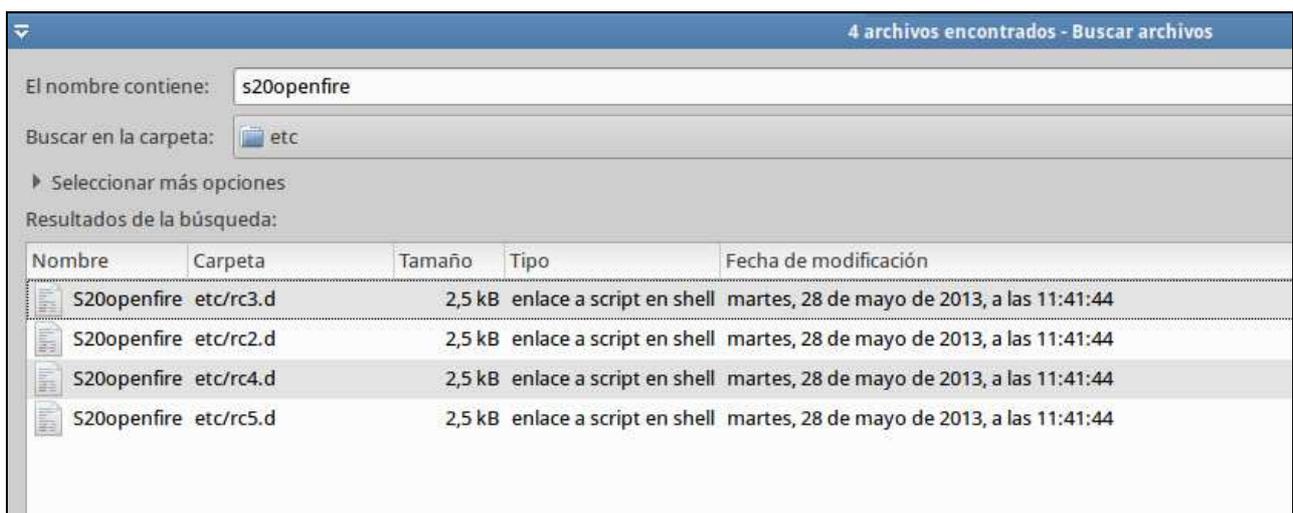
```
[sudo] password for usuario:  
Seleccionando paquete openfire previamente no seleccionado  
(Leyendo la base de datos ... 326757 ficheros o directorios instalados  
actualmente.)  
Desempaquetando openfire (de openfire_3.8.2_all.deb) ...  
Configurando openfire (3.8.2) ...  
Starting openfire: openfire.  
Procesando disparadores para ureadahead ...  
ureadahead will be reprofiled on next reboot
```

(también se probó realizar la instalación en una distribución OPENSUSE 11.4, con lo cual se descargó el paquete .rpm y se utilizó el comando `$yast -i openfire_3.8.2-1.i386.rpm`).

Una vez instalado el paquete, automáticamente se crea un script para administrar el servicio ubicado en:

```
/etc/init.d/openfire
```

Y agrega vínculos a dicho script en los siguientes runlevels: 2, 3, 4 y 5; para que se inicie automáticamente con el sistema.



4 archivos encontrados - Buscar archivos

El nombre contiene:

Buscar en la carpeta:

► Seleccionar más opciones

Resultados de la búsqueda:

Nombre	Carpeta	Tamaño	Tipo	Fecha de modificación
S20openfire	etc/rc3.d	2,5 kB	enlace a script en shell	martes, 28 de mayo de 2013, a las 11:41:44
S20openfire	etc/rc2.d	2,5 kB	enlace a script en shell	martes, 28 de mayo de 2013, a las 11:41:44
S20openfire	etc/rc4.d	2,5 kB	enlace a script en shell	martes, 28 de mayo de 2013, a las 11:41:44
S20openfire	etc/rc5.d	2,5 kB	enlace a script en shell	martes, 28 de mayo de 2013, a las 11:41:44

(aquí se observa, en la búsqueda, el link de arranque (S: start) hacia el script openfire, en los runlevels antes mencionados).

Comandos para iniciar, apagar y reiniciar el servicio:

- Iniciar

```
$ sudo invoke-rc.d openfire start
```

```
Starting openfire: openfire.
```

(en el caso de OPENSUSE seria `$ service openfire start`)

- Apagar

```
$ sudo invoke-rc.d openfire stop
```

```
Stopping openfire: openfire.
```

(en el caso de OPENSUSE seria `$ service openfire stop`)

- Reiniciar

```
$ sudo invoke-rc.d openfire restart
```

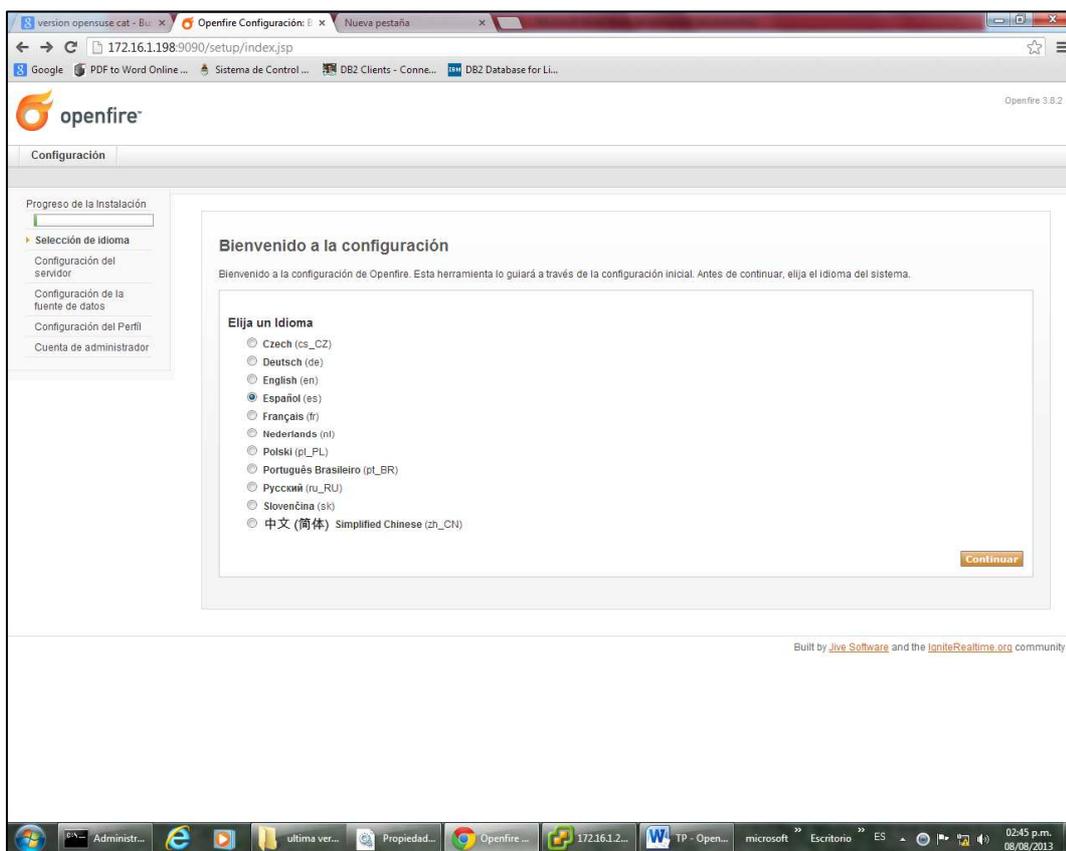
```
Restarting openfire: openfire.
```

(en el caso de OPENSUSE seria `$ service openfire restart`)

Configuración inicial:

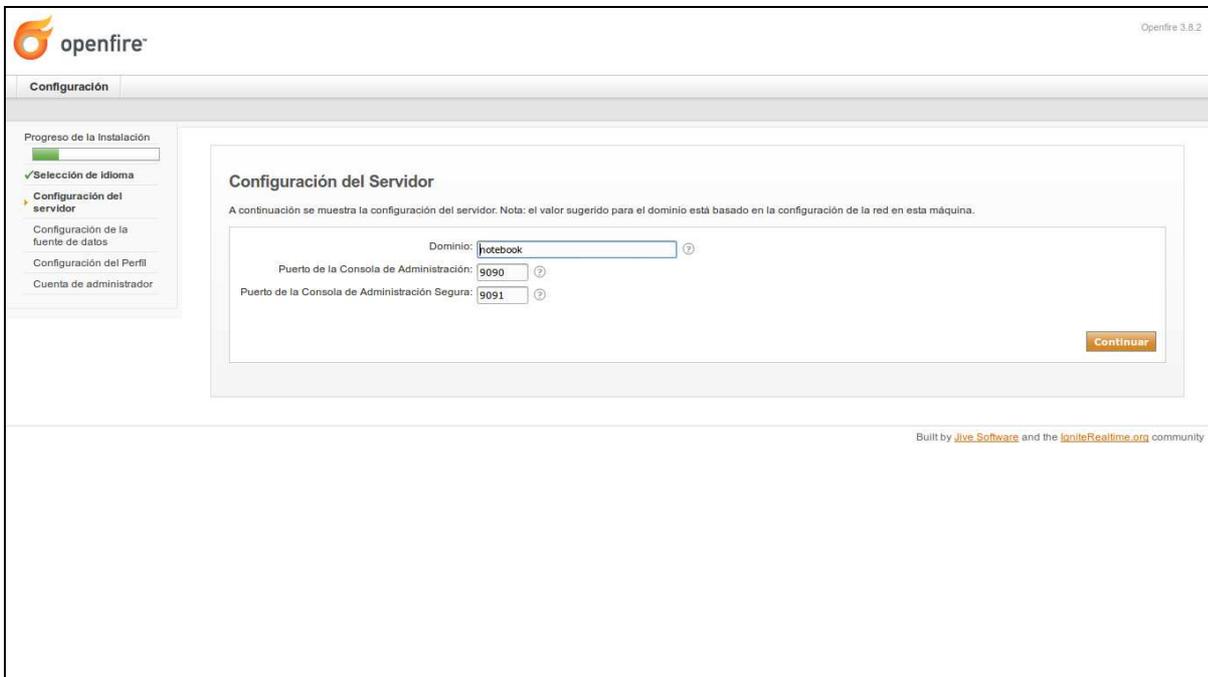
Para realizar la configuración inicial, accedemos mediante un navegador web a la consola de administración mediante la IP de nuestro servidor; ingresando por HTTP al puerto 9090. En nuestro caso, accedemos a: <http://172.16.1.198:9090>

- Selección del idioma



- Configuración del servidor

Esta pantalla permite seleccionar el nombre del dominio (en nuestro caso “notebook”) y los puertos de conexión a la consola de administración; tanto el puerto HTTP (9090) como el HTTPS (9091).

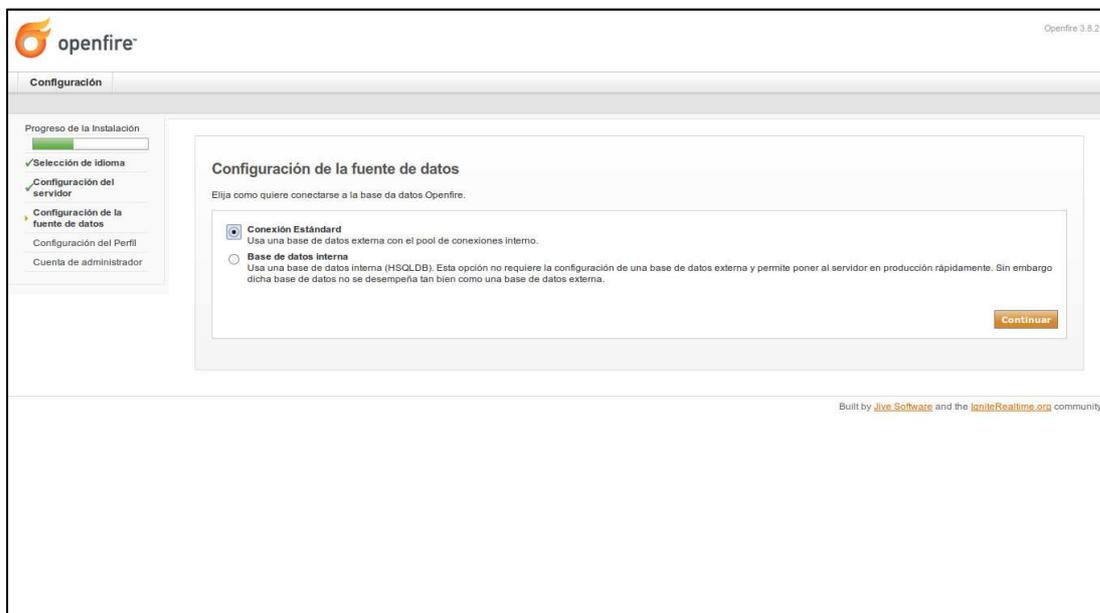


- Configuración de fuente de datos:

En esta pantalla debemos seleccionar qué tipo de base de datos va a utilizar el servidor para administrar los usuarios y grupos.

- Conexión estándar: Una base de datos externa con el pool de conexiones interno
- Base de datos interna: Una base de datos interna (HSQLDB)

(elegimos la opción **Conexión estándar**, con la cuál nos permitirá guardar los usuarios en una base de datos externa. Mediante esta opción seleccionaremos posteriormente una base de datos MySQL).



- Configuración de la fuente de datos – Conexión estándar:

- Drivers Predefinidos: MySQL
- Clase del Driver JDBC: com.mysql.jdbc.Driver
- URL de la Base de Datos:
jdbc:mysql://172.16.1.198:3306/db_openfire?rewriteBatchedStatements=true
 - La URL de la base de datos se compone del servidor (172.16.1.198), el puerto (3306) y el nombre de la base de datos (db_openfire).
- Nombre de usuario: Nombre de usuario de MySQL
- Contraseña: Contraseña de MySQL

(previamente debemos tener instalado en nuestro servidor el MySQL)

The screenshot shows the Openfire 3.8.2 web interface. The top left features the Openfire logo and version number. The main content area is titled 'Configuración de la fuente de datos - Conexión Estándar'. It contains the following fields and options:

- Drivers Predefinidos: MySQL (dropdown menu)
- Clase del Driver JDBC: com.mysql.jdbc.Driver
- URL de la Base de Datos: jdbc:mysql://localhost:3306/db_openfire?rewriteBatchedStatements=true
- Nombre de usuario: root
- Contraseña: masked with dots
- Minimum Connections: 5
- Maximum Connections: 25
- Tiempo de Vida de la Conexión: 1.0 Days

A note at the bottom right states: 'Nota: la conexión a la base de datos puede tardar entre 30 y 60 segundos.' A 'Continuar' button is located at the bottom right of the configuration area.

- Seteos de Perfil

Esta opción permite definir cómo va a administrar los usuarios el servidor. Si los va a administrar internamente el propio **Openfire** o se conectará a un servicio de Directorio (ej. OpenLDAP, ActiveDirectory, etc). Elegiremos la opción **Por defecto**.

The screenshot shows the 'Seteos de Perfil' (Profile Settings) screen in the Openfire 3.8.2 installation wizard. On the left, a progress bar indicates the installation steps: 'Selección de idioma', 'Configuración del servidor', 'Configuración de la fuente de datos', 'Configuración del Perfil', and 'Cuenta de administrador'. The 'Configuración del Perfil' step is currently active. The main content area is titled 'Seteos de Perfil' and contains the instruction: 'Seleccione el sistema de usuarios y grupos a utilizar en Openfire.' Below this, there are three radio button options: 'Por defecto' (selected), 'Servidor de Directorio (LDAP)', and 'Integración con Cleartext'. The 'Por defecto' option is described as the best for simple installations. The 'Servidor de Directorio (LDAP)' option is for integrating with existing directory services. The 'Integración con Cleartext' option is for integrating with an existing Cleartext installation. A 'Continuar' button is located at the bottom right of the options area. At the bottom of the screen, it says 'Built by [Jive Software](#) and the [IgniteRealtime.org](#) community'.

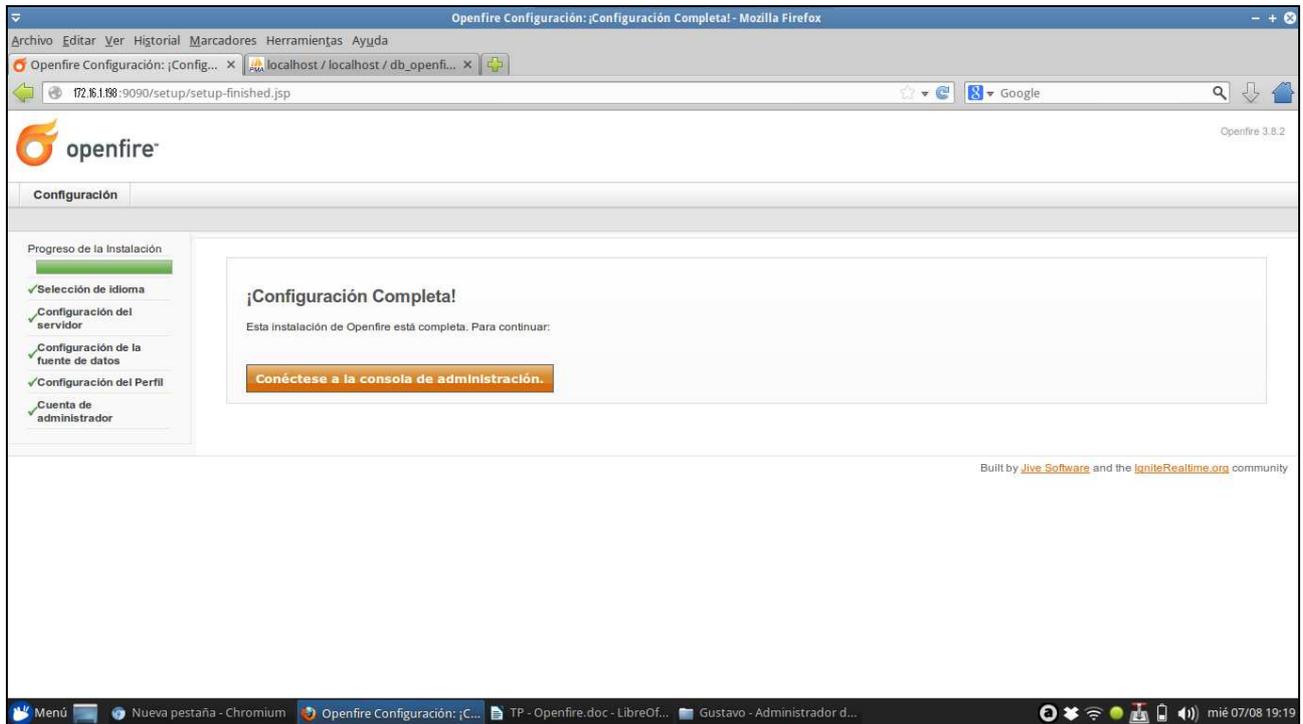
- Cuenta del Administrador

En esta pantalla debemos ingresar la dirección de email del administrador, y la clave de administración. El nombre de usuario por defecto es **admin**.

The screenshot shows the 'Cuenta del Administrador' (Administrator Account) screen in the Openfire 3.8.2 installation wizard. The progress bar on the left shows that the 'Configuración del Perfil' step is complete, and the 'Cuenta de administrador' step is currently active. The main content area is titled 'Cuenta del Administrador' and contains the instruction: 'Ingrese la configuración para la cuenta del administrador del sistema (nombre de usuario "admin"). Es importante elegir una contraseña que no pueda ser adivinada fácilmente, por ejemplo que tenga al menos seis caracteres y una mezcla de letras y números. Puede saltar este paso si ya ha configurado su cuenta de administrador (no recomendado para usuarios inexpertos).' Below this, there are three input fields: 'Email del Administrador' (containing 'admin@gugler.com'), 'Nueva Contraseña' (with masked characters), and 'Confirme la Contraseña' (with masked characters). A 'Saltar este paso' button is located to the left of the 'Continuar' button. At the bottom of the screen, it says 'Built by [Jive Software](#) and the [IgniteRealtime.org](#) community'.

- Fin de la instalación

Llegado a este paso la instalación se realizó correctamente; ya nos podemos conectar a la consola de administración.



Una vez finalizada la instalación podemos consultar la base de datos, donde veremos que el asistente de instalación creó todas las tablas necesarias para el funcionamiento del servidor:

Tabla	Acción	Filas	Tipo	Cotejamiento	Tamaño	Residuo a depurar
ofExtComponentConf	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	16.0 KB	-
ofGroup	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	16.0 KB	-
ofGroupProp	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	16.0 KB	-
ofGroupUser	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	16.0 KB	-
ofID	Examinar Estructura Buscar Insertar Vaciar Eliminar	4	InnoDB	latin1_swedish_ci	16.0 KB	-
ofMucAffiliation	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	16.0 KB	-
ofMucConversationLog	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	32.0 KB	-
ofMucMember	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	16.0 KB	-
ofMucRoom	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	48.0 KB	-
ofMucRoomProp	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	16.0 KB	-
ofMucService	Examinar Estructura Buscar Insertar Vaciar Eliminar	1	InnoDB	latin1_swedish_ci	32.0 KB	-
ofMucServiceProp	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	16.0 KB	-
ofOffline	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	16.0 KB	-
ofPresence	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	16.0 KB	-
ofPrivacyList	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	32.0 KB	-
ofPrivate	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	16.0 KB	-
ofProperty	Examinar Estructura Buscar Insertar Vaciar Eliminar	13	InnoDB	latin1_swedish_ci	16.0 KB	-
ofPubsubAffiliation	Examinar Estructura Buscar Insertar Vaciar Eliminar	1	InnoDB	latin1_swedish_ci	16.0 KB	-
ofPubsubDefaultConf	Examinar Estructura Buscar Insertar Vaciar Eliminar	2	InnoDB	latin1_swedish_ci	16.0 KB	-
ofPubsubItem	Examinar Estructura Buscar Insertar Vaciar Eliminar	0	InnoDB	latin1_swedish_ci	16.0 KB	-

(aquí se visualiza las tablas del servidor Openfire ingresando con PhpMyadmin).

Consola de administración:

Para ingresar a la consola de administración: <http://172.16.1.198:9090>, o sea la IP del servidor mas el puerto de comunicación, en nuestro navegador web:

En esta consola podremos configurar diversos parámetros del servidor como así también administrar los usuarios y grupos según veremos a continuación:



- Pantalla inicial de la consola de Administración

The image is a screenshot of a web browser displaying the Openfire Administration Console. The browser's address bar shows "172.16.1.198:9090/index.jsp". The page title is "Openfire Consola de Administración: Configuración del Servidor - Mozilla Firefox". The main content area has a navigation menu with tabs for "Servidor", "Usuarios/Grupos", "Sesiones", "Conferencias", and "Plugins". Under "Servidor", there are sub-tabs for "Administración del Servidor", "Configuración del Servidor", and "Servicios de Multimedia". The "Configuración del Servidor" sub-tab is active, showing a "Configuración del Servidor" page. The page contains a message: "A continuación están las propiedades de este servidor. Presione en el botón 'Editar Propiedades' para cambiar al ser cambiadas." Below this are two sections: "Propiedades del Servidor" and "Ambiente".

Propiedades del Servidor	
Tiempo de Actividad del Servidor:	42 minutos -- started 07-ago-2013 19:23:15
Versión:	Openfire 3.8.2
Ruta al servidor:	/usr/share/openfire
Nombre del Servidor:	notebook

Ambiente	
Versión de Java:	1.7.0_25 Oracle Corporation -- OpenJDK Server VM
Servidor de Aplicaciones:	jetty/7.x.y-SNAPSHOT
Host Name:	notebook
SO / Hardware:	Linux / i386
Idioma / Huso Horario:	es / Hora de Argentina (-3 GMT)
Memoria de Java	<div style="width: 14%;"><div style="width: 14%;"></div></div> 87,38 MB of 625,81 MB (14,0%) used

Creación de usuarios y grupos:

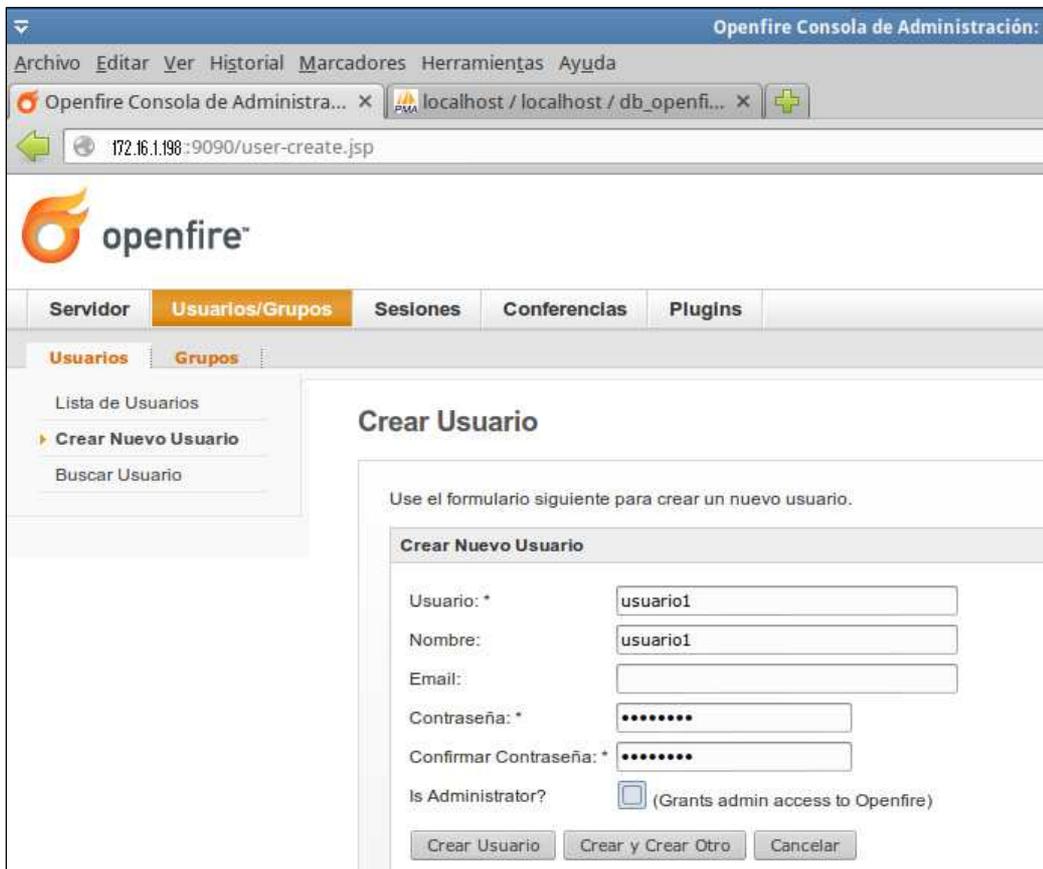
- Creación de usuarios



The screenshot shows the Openfire Admin Console interface. The browser title is "Openfire Consola de Administración: Lista de Usuarios - Mozilla Firefox". The address bar shows "172.16.1.198:9090/user-summary.jsp". The main navigation menu includes "Servidor", "Usuarios/Grupos", "Sesiones", "Conferencias", and "Plugins". Under "Usuarios/Grupos", there are sub-menus for "Usuarios" and "Grupos". The "Usuarios" sub-menu is active, showing options for "Lista de Usuarios", "Crear Nuevo Usuario", and "Buscar Usuario". The main content area is titled "Lista de Usuarios" and displays a table with the following data:

Conectado	Usuario	Nombre	Creado
1	 admin 	Administrator	07-ago-2013

Seleccionando la pestaña **Usuarios/Grupos** y dentro de ella la pestaña **Usuarios** tenemos acceso a crear nuevos usuarios, en nuestro caso crearemos dos usuarios de prueba: **usuario1** y **usuario2**.



The screenshot shows the "Crear Usuario" form in the Openfire Admin Console. The browser title is "Openfire Consola de Administración: C". The address bar shows "172.16.1.198:9090/user-create.jsp". The main navigation menu is the same as in the previous screenshot. The "Usuarios" sub-menu is active, showing options for "Lista de Usuarios", "Crear Nuevo Usuario", and "Buscar Usuario". The main content area is titled "Crear Usuario" and contains the following form fields:

Use el formulario siguiente para crear un nuevo usuario.

Crear Nuevo Usuario

Usuario: *

Nombre:

Email:

Contraseña: *

Confirmar Contraseña: *

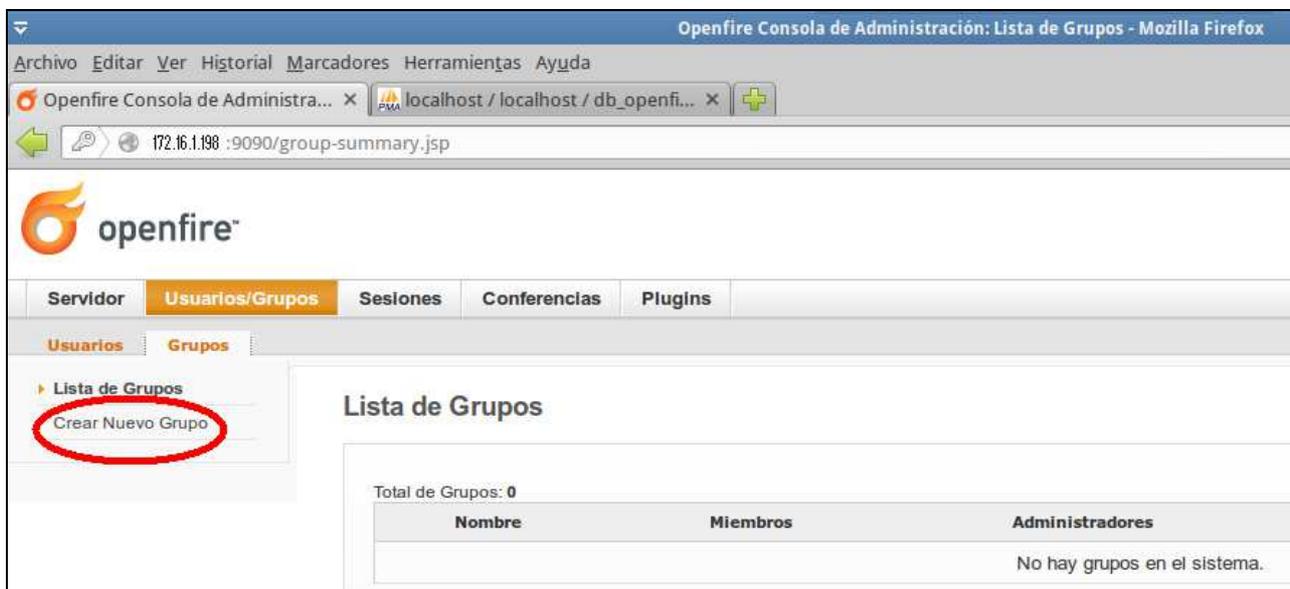
Is Administrator? (Grants admin access to Openfire)

Buttons:

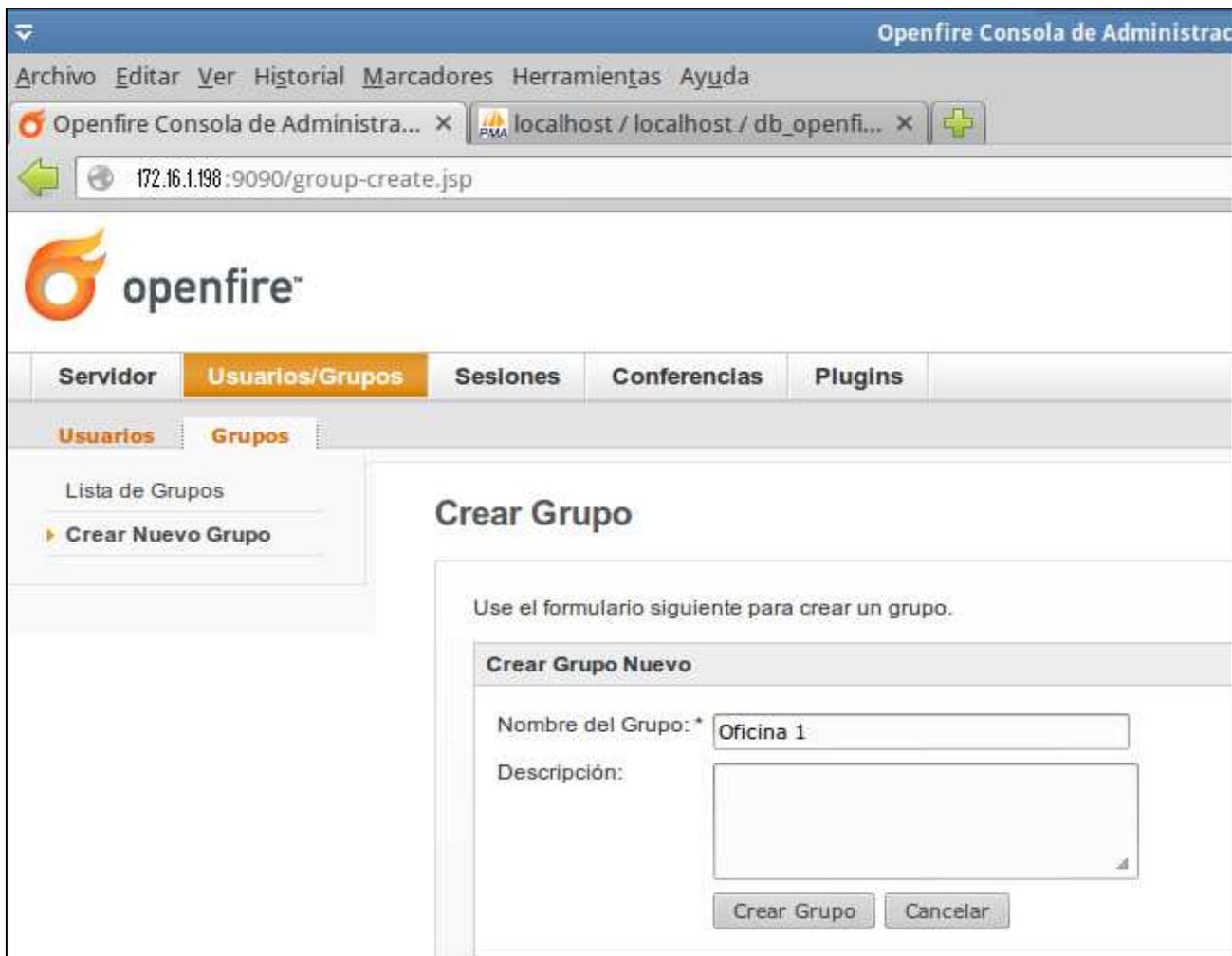
(aquí se observa la pantalla donde se da de alta un nuevo usuario)

- Creación de grupos

De manera similar se crean los grupos seleccionando la pestaña **Grupos** y la opción **Crear Nuevo Grupo**.



Crearemos dos grupos de prueba: **Oficina 1** y **Oficina 2**:



Una vez creado los grupos, nos ofrece la siguiente pantalla. En la misma podemos agregar usuarios a este grupo, en la sección **Members of this group**.

Oficina 1

Contact List (Roster) Sharing

You can use the form below to automatically add this group to users' contact lists. **When enabled**, this group will only appear in the contact lists of the group's members. When disabled, this group will not appear in the contact lists of the group's members. You can share this group with all users or members of other groups.

Disable contact list group sharing
 Enable contact list group sharing

Members of This Group

Use the form below to add users to this group. Once added, you will be able to remove them, or give certain users administrative rights over the group.

Agregar Usuario:

Nombre	Administrador	Borrar
No hay miembros en este grupo. Use el formulario anterior para agregar algunos.		

Una vez que asociamos el **usuario1** al grupo **Oficina 1** (podemos visualizarlo aquí),

Members of This Group

Use the form below to add users to this group. Once added, you will be able to remove them, or give certain users administrative rights over the group.

Agregar Usuario:

Nombre	Administrador	Borrar
 usuario1	<input type="checkbox"/>	<input type="checkbox"/>
<input type="button" value="Update"/>		<input type="button" value="Remove"/>

En la sección **Contact List (roster) Sharing** podemos habilitar el grupo actual para que se muestre automáticamente en la lista de contactos de los demás usuarios.

Para ello seleccionamos **Enable contact list group sharing** y completamos el campo con el nombre que queremos que aparezca el grupo en la lista de contactos de los demás usuarios.

Luego tildamos en **Share group with additional users** y también la opción **All Users**.

The screenshot shows the 'Oficina 1' settings page for 'Contact List (Roster) Sharing'. It includes a title bar, a descriptive paragraph, two radio buttons for enabling/disabling sharing, a text input field for the group name (filled with 'Oficina 1'), a checked checkbox for 'Share group with additional users', and two radio buttons for selecting 'All users' (selected) or 'The following groups:'. Below the second option is a list box containing 'Oficina 2'. A 'Save Contact List Settings' button is at the bottom.

Aquí vemos como quedaron creados los 2 grupos:

Lista de Grupos	
Total de Grupos: 2	Buscar por Nombre
Nombre	Miembros
1 Oficina 1	1
2 Oficina 2	1

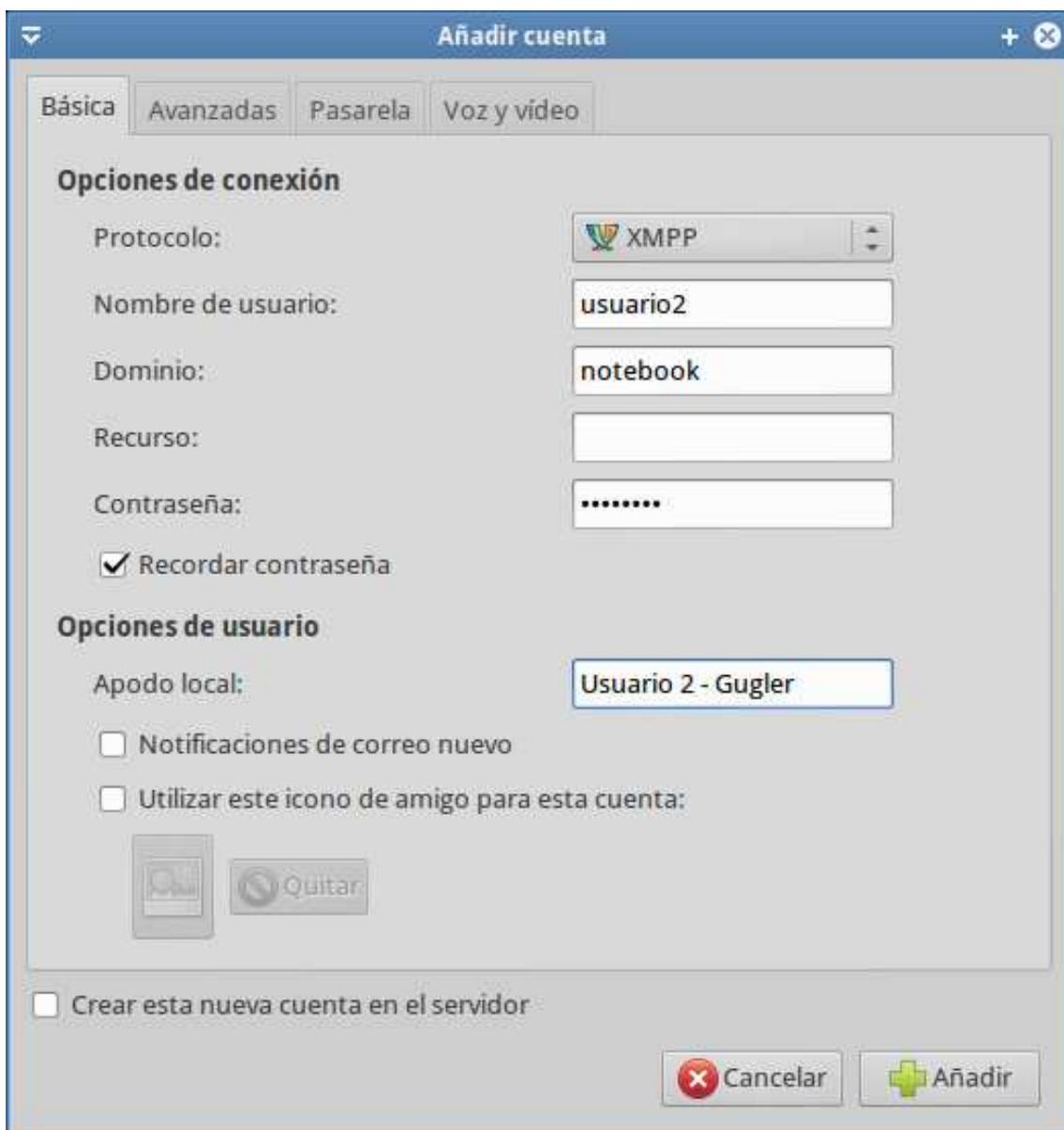
Conexión al servidor desde Pidgin:

Primeramente se debe descargar e instalar el cliente **Pidgin** (en este caso sobre una distribución XUBUNTU).

Luego:

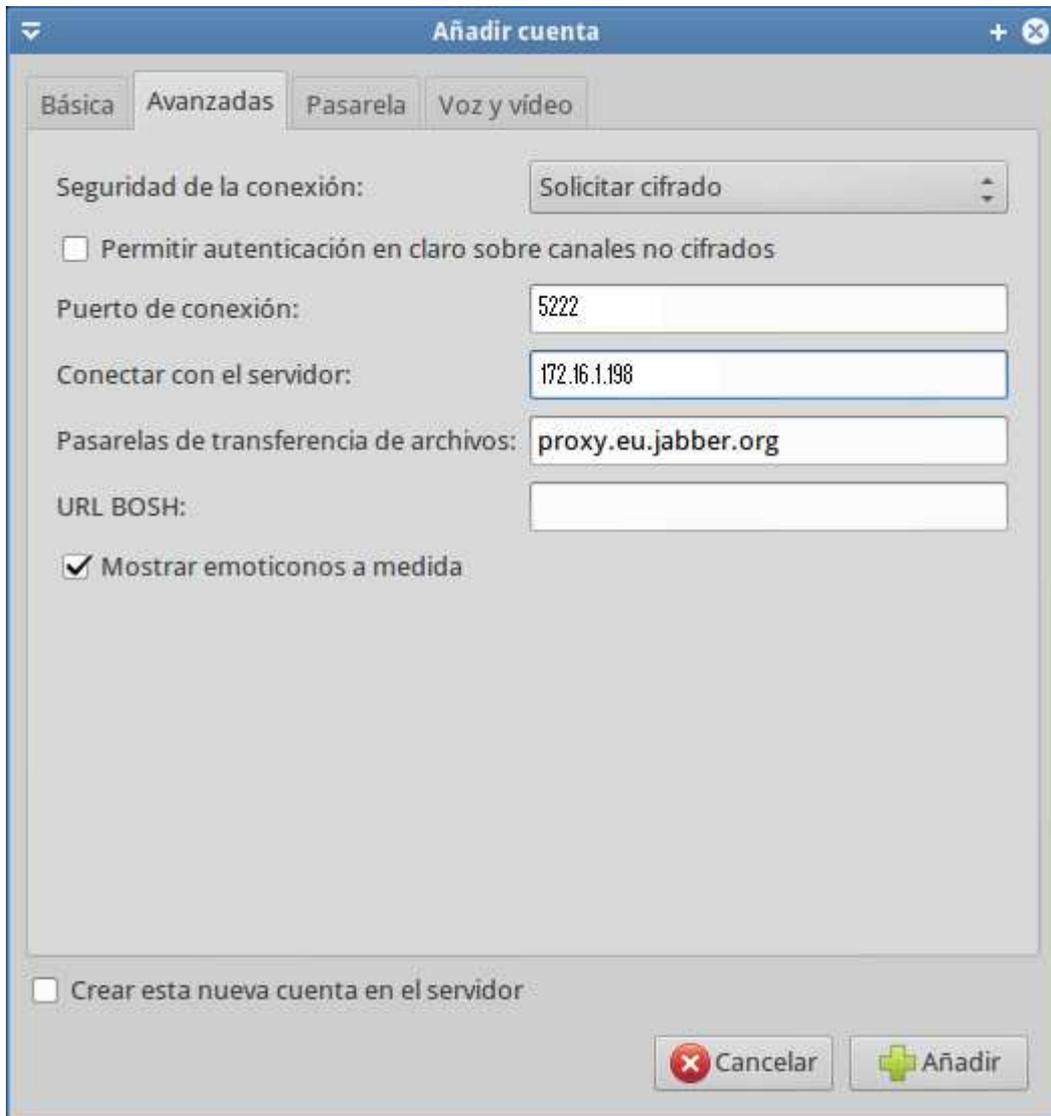
Añadimos la cuenta de usuario

Elegimos el protocolo XMPP, y completamos los datos de **usuario** y **dominio** (este dato del dominio lo habíamos ingresado al configurar inicialmente el servidor Openfire).



The image shows a screenshot of the Pidgin 'Añadir cuenta' (Add Account) dialog box. The window has a title bar with the text 'Añadir cuenta' and standard window controls. Below the title bar are four tabs: 'Básica', 'Avanzadas', 'Pasarela', and 'Voz y vídeo'. The 'Básica' tab is selected. The dialog is divided into two main sections: 'Opciones de conexión' and 'Opciones de usuario'. In the 'Opciones de conexión' section, there are fields for 'Protocolo:' (set to XMPP), 'Nombre de usuario:' (set to 'usuario2'), 'Dominio:' (set to 'notebook'), 'Recurso:' (empty), and 'Contraseña:' (masked with dots). There is a checked checkbox for 'Recordar contraseña'. In the 'Opciones de usuario' section, there is a field for 'Apodo local:' (set to 'Usuario 2 - Gugler') and two unchecked checkboxes: 'Notificaciones de correo nuevo' and 'Utilizar este icono de amigo para esta cuenta:'. Below these checkboxes are two buttons: a square icon button and a 'Quitar' button. At the bottom of the dialog, there is an unchecked checkbox for 'Crear esta nueva cuenta en el servidor'. At the bottom right, there are two buttons: 'Cancelar' (with a red X icon) and 'Añadir' (with a green plus icon).

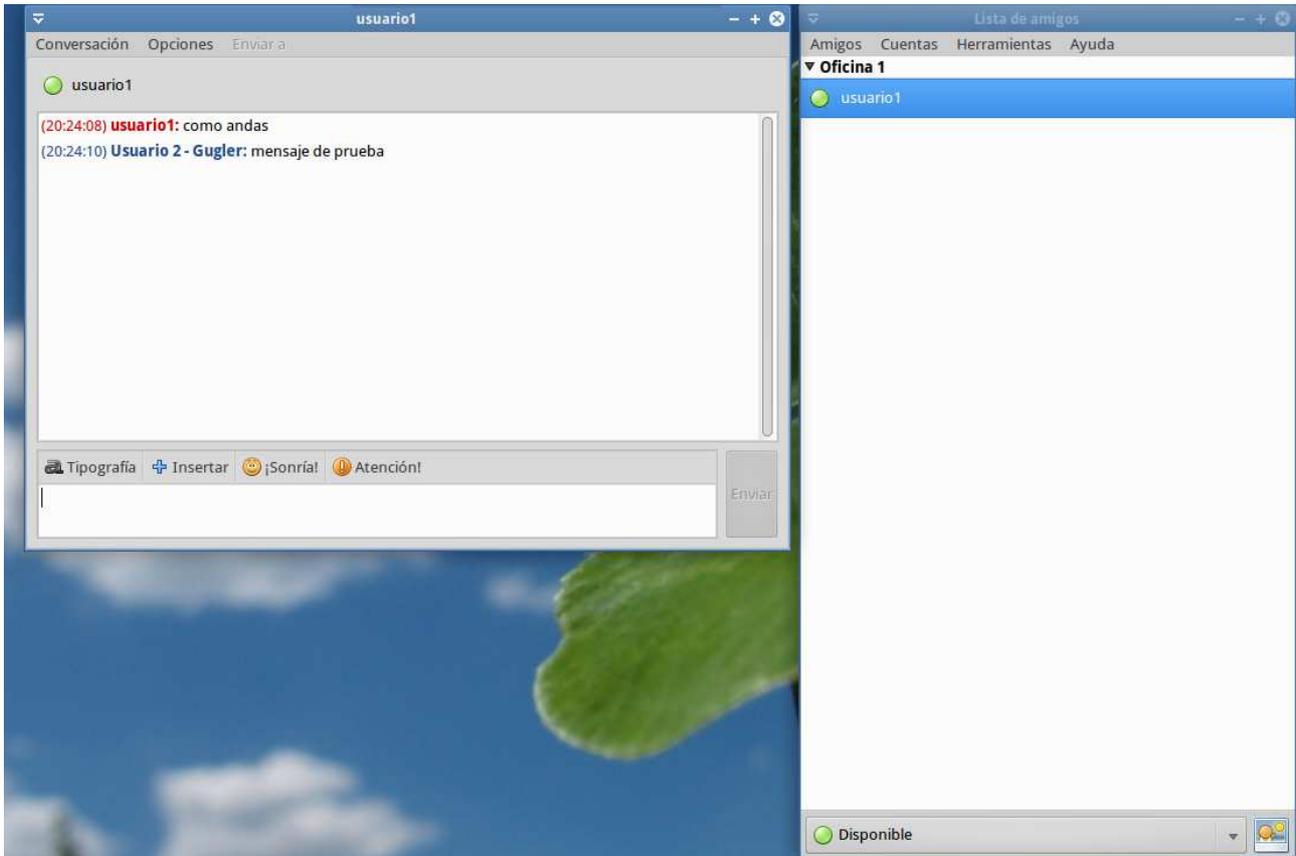
En la pestaña **Avanzadas**, debemos configurar la IP del servidor, en el campo **Conectar con el servidor** y el puerto de conexión queda por defecto 5222:



Una vez finalizada la configuración, al conectarnos nos consultará si aceptamos el certificado:



Y finalmente podemos ver en funcionamiento el servidor de mensajería:
Aquí se observa sobre la derecha la ventana con los contactos o “amigos”
en este caso el **USUARIO 1** que pertenece al grupo **OFICINA 1**.



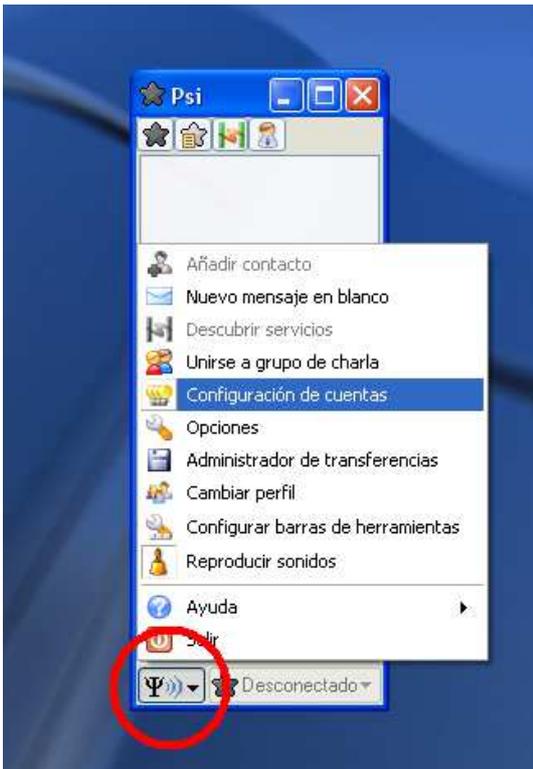
Sobre la izquierda se observa la ventana que contiene los mensajes que el usuario logueado localmente envía y recibe.

Conexión al servidor desde PSI:

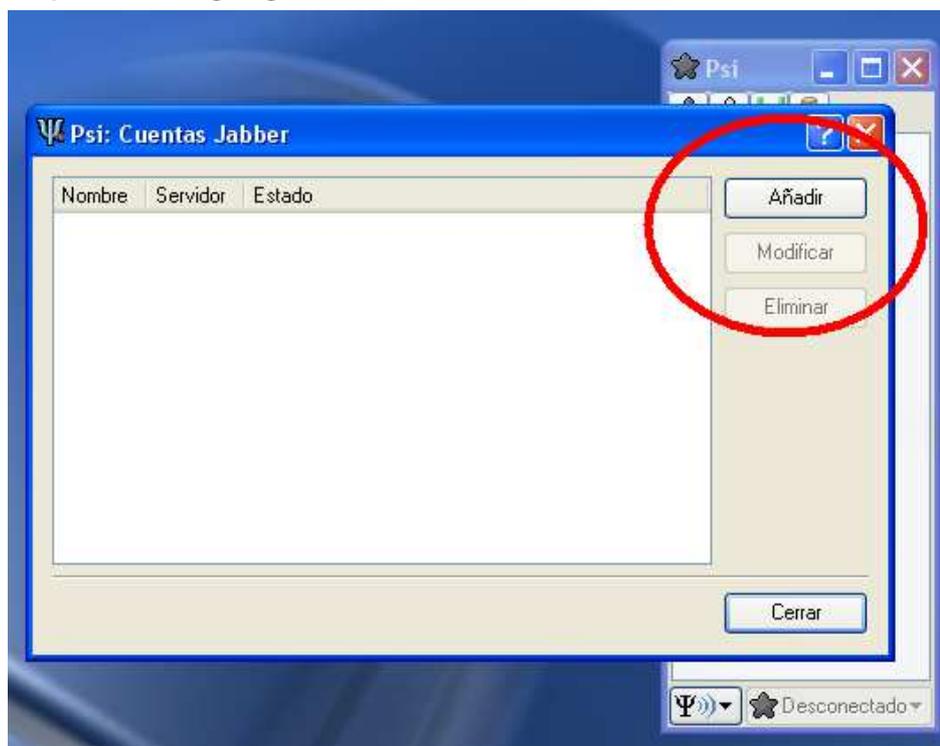
En Windows, optamos por utilizar el cliente PSI, dentro de los diversos clientes que soportan el protocolo.

Las pantallas de PSI son similares, así como la configuración, con respecto al cliente PIDGIN que vimos antes.

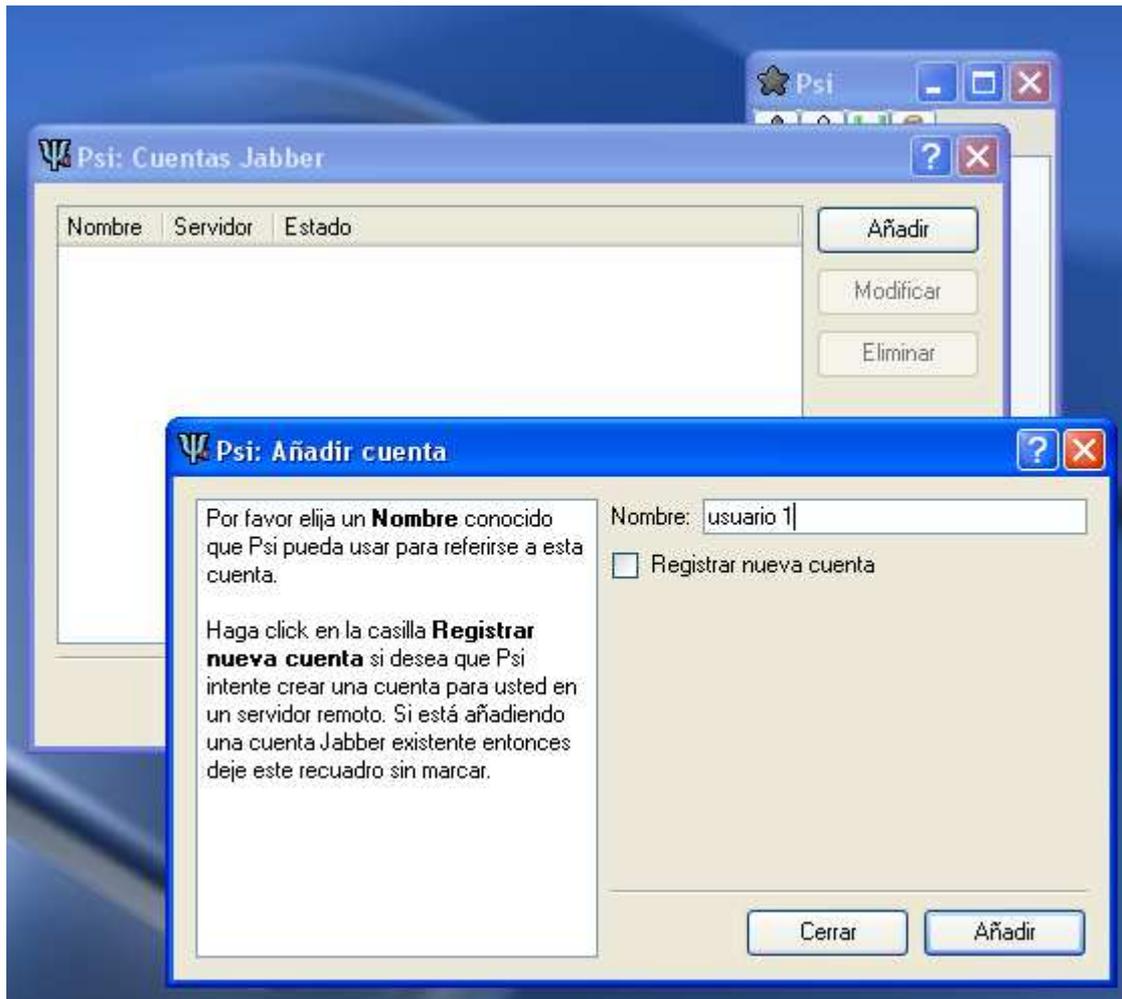
Veamos dicha configuración:



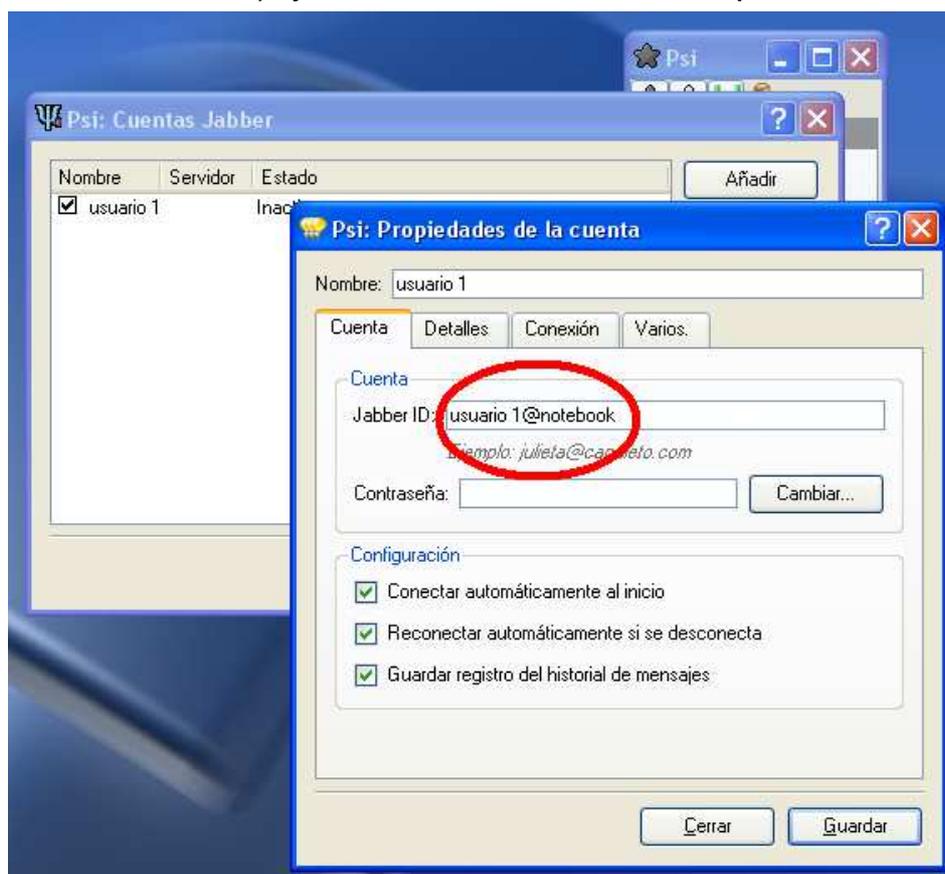
Una vez instalado el cliente PSI, aquí se ingresa a la ventana donde esta la opción que permite agregar nuevas cuentas de usuario.



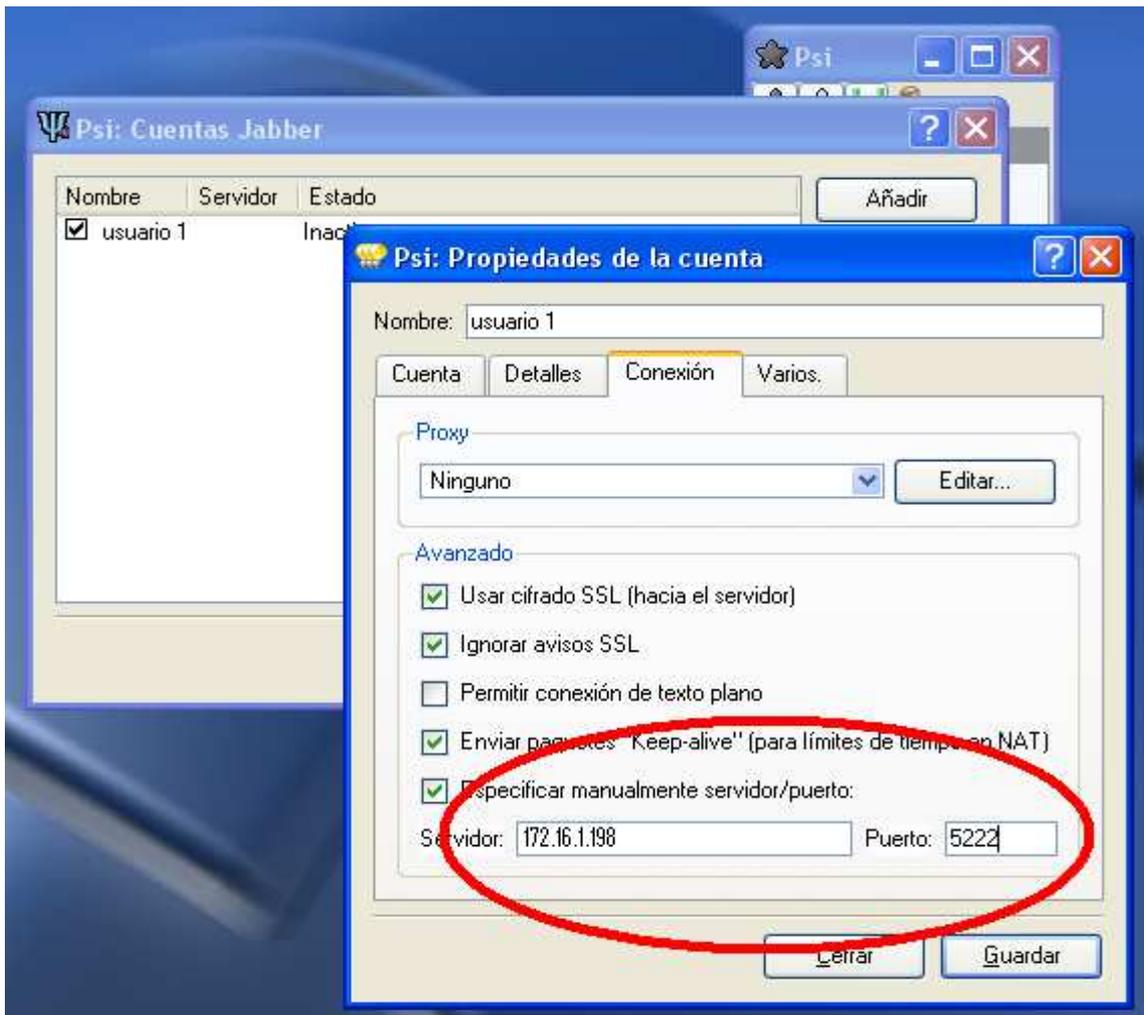
Este nombre es descriptivo y aparecerá en la lista de contactos,



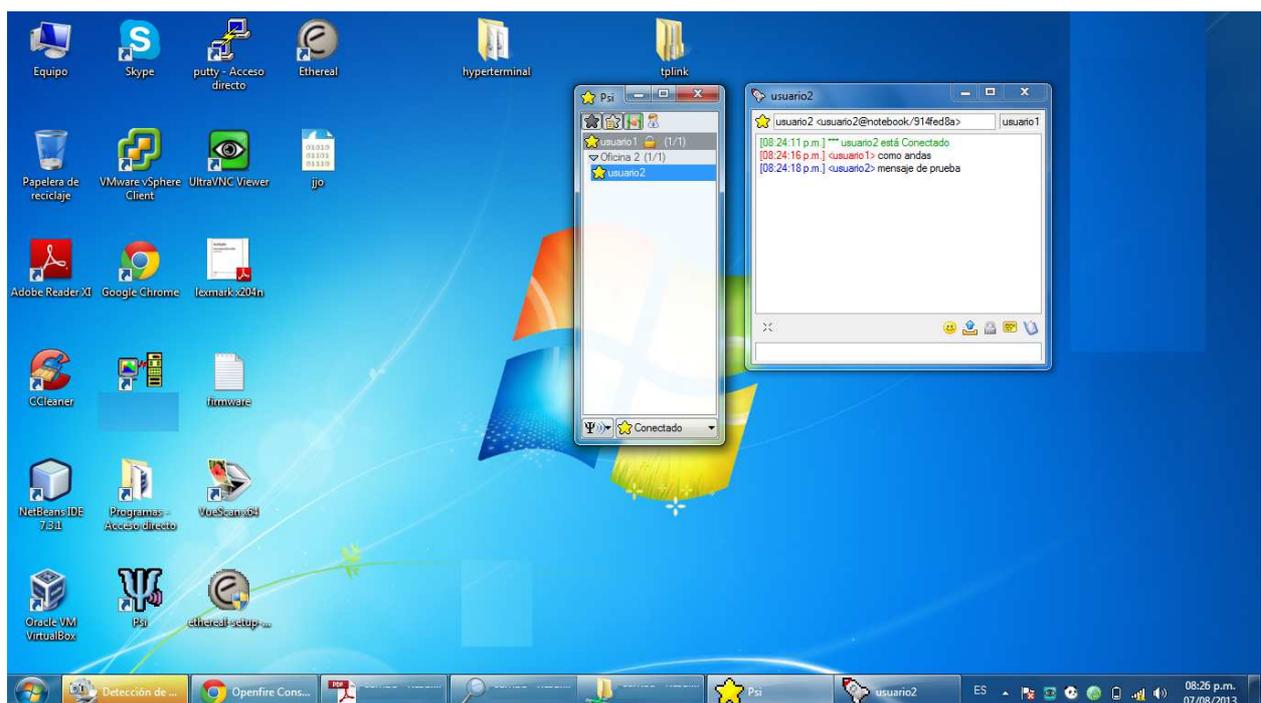
Aquí se observa como principal parámetro el Jabber ID, que se compone de el nombre del usuario (previamente creado desde la consola de administración del servidor) y el dominio del servidor Openfire.



Por ultimo se ingresa la IP del servidor Openfire y el puerto de comunicacion.



Finalmente, aquí se observa la ventana con los contactos y junto a ella la ventana con los mensajes salientes y entrantes.



Conclusion Final:

El servidor de mensajería Openfire es una herramienta muy útil dentro de nuestra red que agiliza la comunicación entre los usuarios.

Tiene características muy importantes como administración web, posibilidad de realizar conferencias, interacción con MSN, YAHOO Messenger, etc., transferencia de archivos, mensajes offline, compresión de datos, distintas formas de autenticación de los usuarios y mucho más.

Por último es de destacar la facilidad de la instalación del servidor, la posibilidad de elegir diferentes clientes (psi, pidgin, pandion, spark, etc) y conseguir plugins para adicionar funciones.

Enlaces consultados :

<http://es.wikipedia.org/wiki/Openfire>

<http://www.igniterealtime.org/downloads/index.jsp>

https://www.google.com.ar/url?sa=t&rct=j&q=&esrc=s&source=web&cd=11&ved=0CDMQFjAAOao&url=http%3A%2F%2Fwww.elrincondelprogramador.net%2Findex.php%2Fdocumentos%2Fdoc_download%2F2-servidor-jabber-en-windows.html&ei=RbYwUtWRN-niiwLI34HADg&usg=AFQjCNEN12FJ33H31u88YegCq76r3E3gEw

<http://drivemeca.blogspot.com.ar/2013/06/como-instalar-jabber-openfire-382-paso.html>

http://www.xombra.com/index.php?do=articulos¬a=156&t=#.UjC4AdJg_Ss

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