

GNU/Linux, software libre para la comunidad universitaria

Configuración de plataforma LAMP - Práctica

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Capítulo 1

Introducción a la Instalación de LAMP

1.1. Introducción

En el presente manual se van a definir a fondo aquellas tareas necesarias para poner en funcionamiento una plataforma LAMP. Por simplicidad el manual está dedicado a su instalación y configuración en una OpenSuse 10.2.

Capítulo 2

Configuración de Servicios LAMP

2.1. Configuración de un Servidor DNS

Debido que las distintas posibilidades a la hora de gestionar un dominio son tan variadas, en el presente manual se va a suponer que se dispone de un dominio contratado y que se sabe la dirección ip de cada una de las máquinas que van a ir dentro del dominio.

2.2. Configuración de un dominio DNS

Una vez que hayamos accedido a la herramienta de configuración dispondremos de in interfaz a través del cual podremos modificar las entradas del dominio. Disponemos básicamente de tres tipo de entradas: A o entradas de maquinas (relacionan una ip con un nombre dentro del dominio), CNAME relacionan mediante un alias un nombre de máquina con otro nombre y MX que relaciona el servidor por correo por defecto con un nombre de máquina.

A continuación de puede ver una figura en el que se ve cómo configurar dichas entradas:

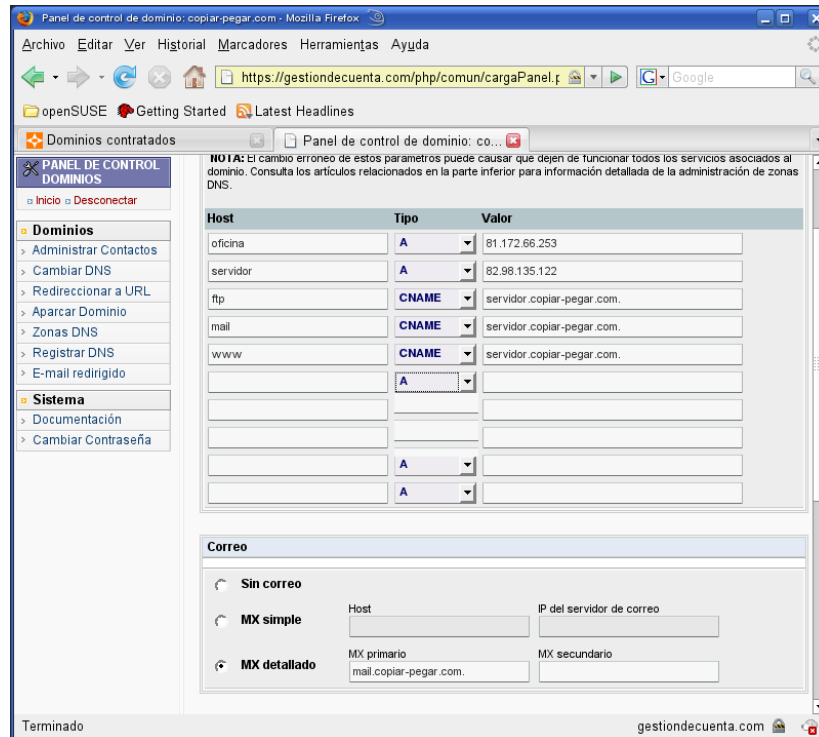


Figura 2.1: Ejemplo de interfaz y configuración de un Servidor DNS

Una vez guardados los cambios espere entre 24 y 48h a que dichos cambios surtan efecto. Después de que haya pasado dicho plazo, pruebe a entrar mediante el navegador web para ver si funciona correctamente.

Capítulo 3

Instalación de LAMP

3.1. Instalación de una LAMP en Ubuntu 10.04

A continuación se detallarán los pasos necesarios para la instalación de un entorno LAMP en Ubuntu 10.04

La instalación del entorno LAMP en Ubuntu se realiza a través de cualquiera de los gestores de paquetes que dispone la distribución: apt-get, aptitude y synaptic. Todos estos gestores de paquetes necesitan permisos de administración para ser ejecutados. Por lo que será necesario ejecutarlos precedido de uno de los comandos "sudo" o "gksu".

Para ejecutar synaptic, tan sólo debemos abrir el menú Sistema/Administración/Gestor de paquetes Synaptic. Nos saldrá una pantalla similar a la siguiente:

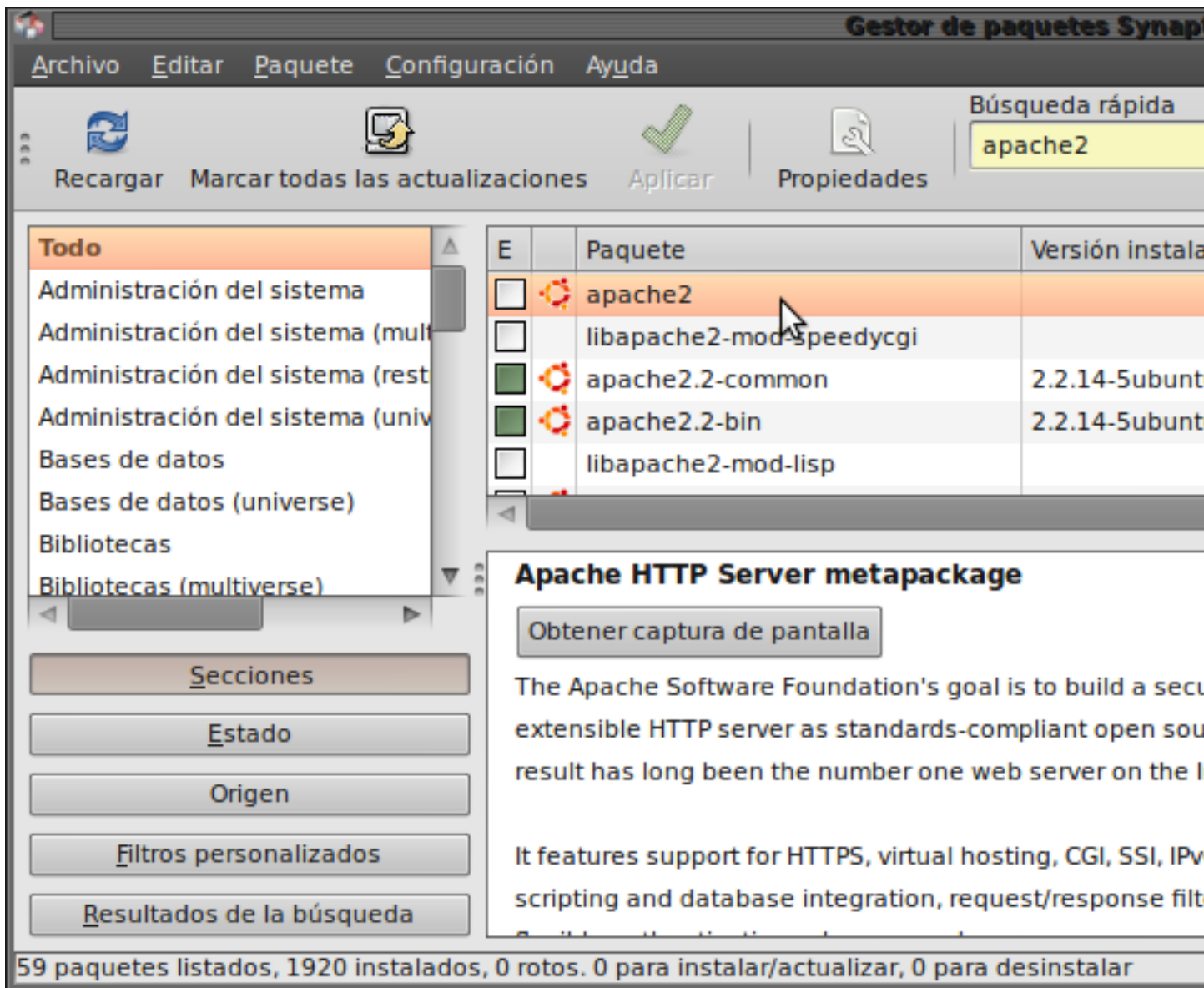


Figura 3.1: Ventana principal de Synaptic.

En el cuadro de búsqueda nos permite introducir el nombre de un paquete y se actualizará el listado de paquetes para ajustarse a la búsqueda realizada.

Una vez hayamos conseguido buscar el paquete, mediante un doble click le indicaremos que deseamos instalarlo, es posible que nos indique que dicho paquete tiene dependencias y que debemos instalarlas. Si esta pantalla apareciera, deberíamos marcar dichos paquetes para instalarlos.

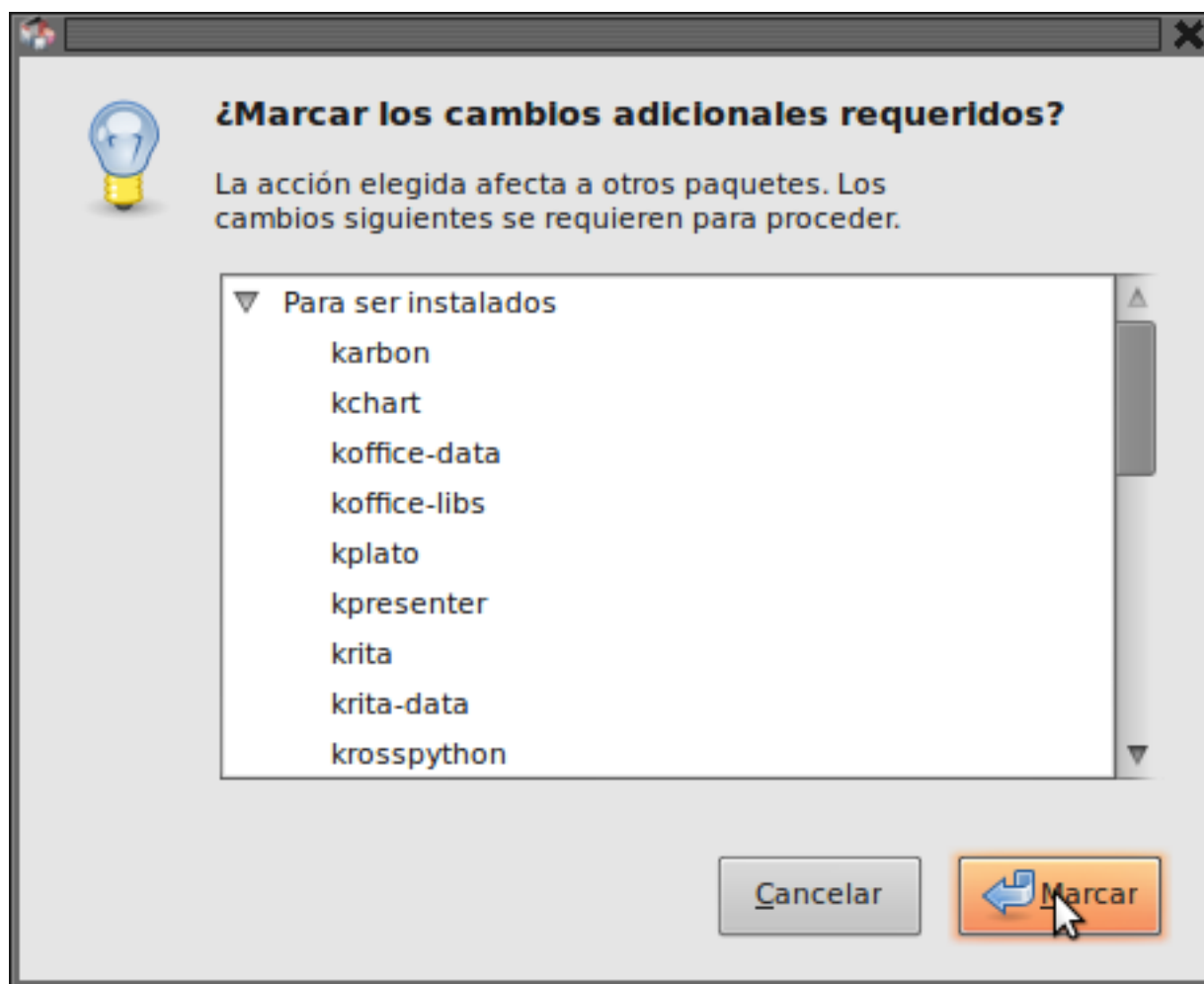


Figura 3.2: Ventana de confirmación de dependencias.

Cuando hayamos terminado de seleccionar aquellos paquetes que queremos instalar, pulsaremos sobre el botón "Aplicar". Saldrá una pantalla de confirmación similar a la siguiente:

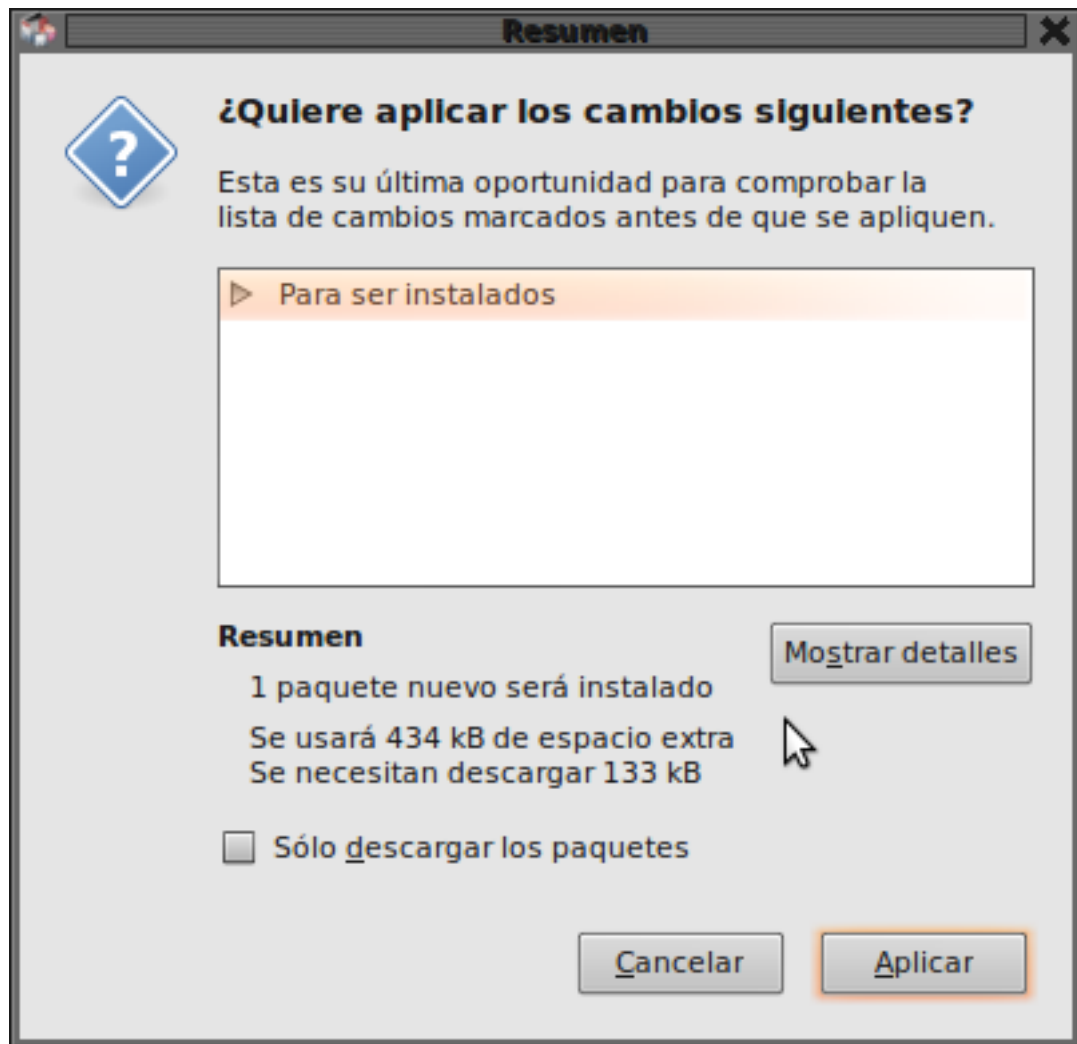


Figura 3.3: Cuadro de resumen de aplicar cambios.

Como podemos observar en la figura nos indica el número de paquetes a instalar, su tamaño de descarga y una vez instalado, etc... A continuación pulsaremos sobre el botón "Aplicar".

Luego aparecerá una pantalla en la que se irán descargando los paquetes.

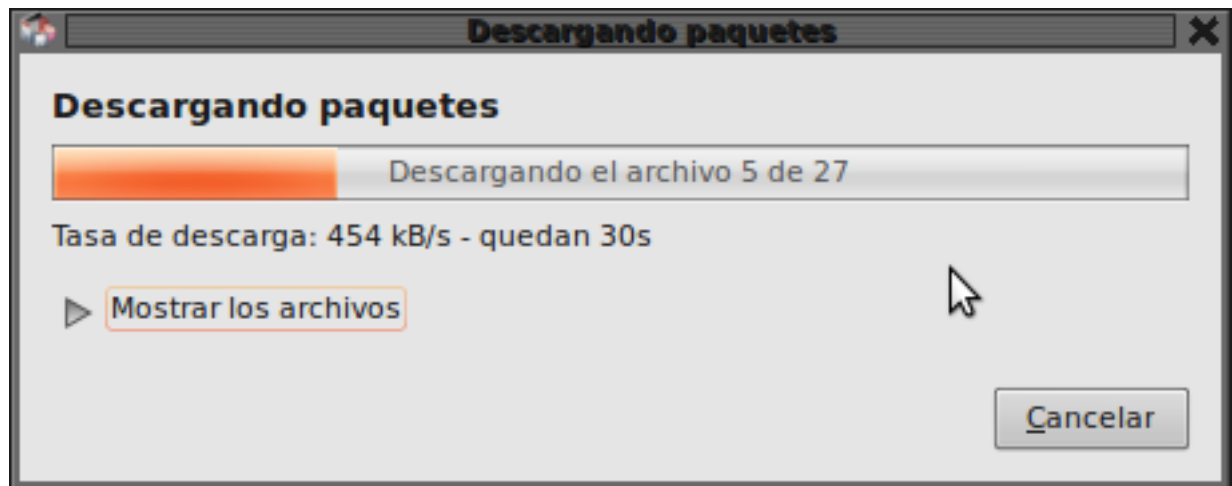


Figura 3.4: Cuadro de progreso de descarga de paquetes.

Una vez haya terminado de descargar correctamente los paquetes, se realiza su instalación, aparecerá una pantalla similar a la siguiente.

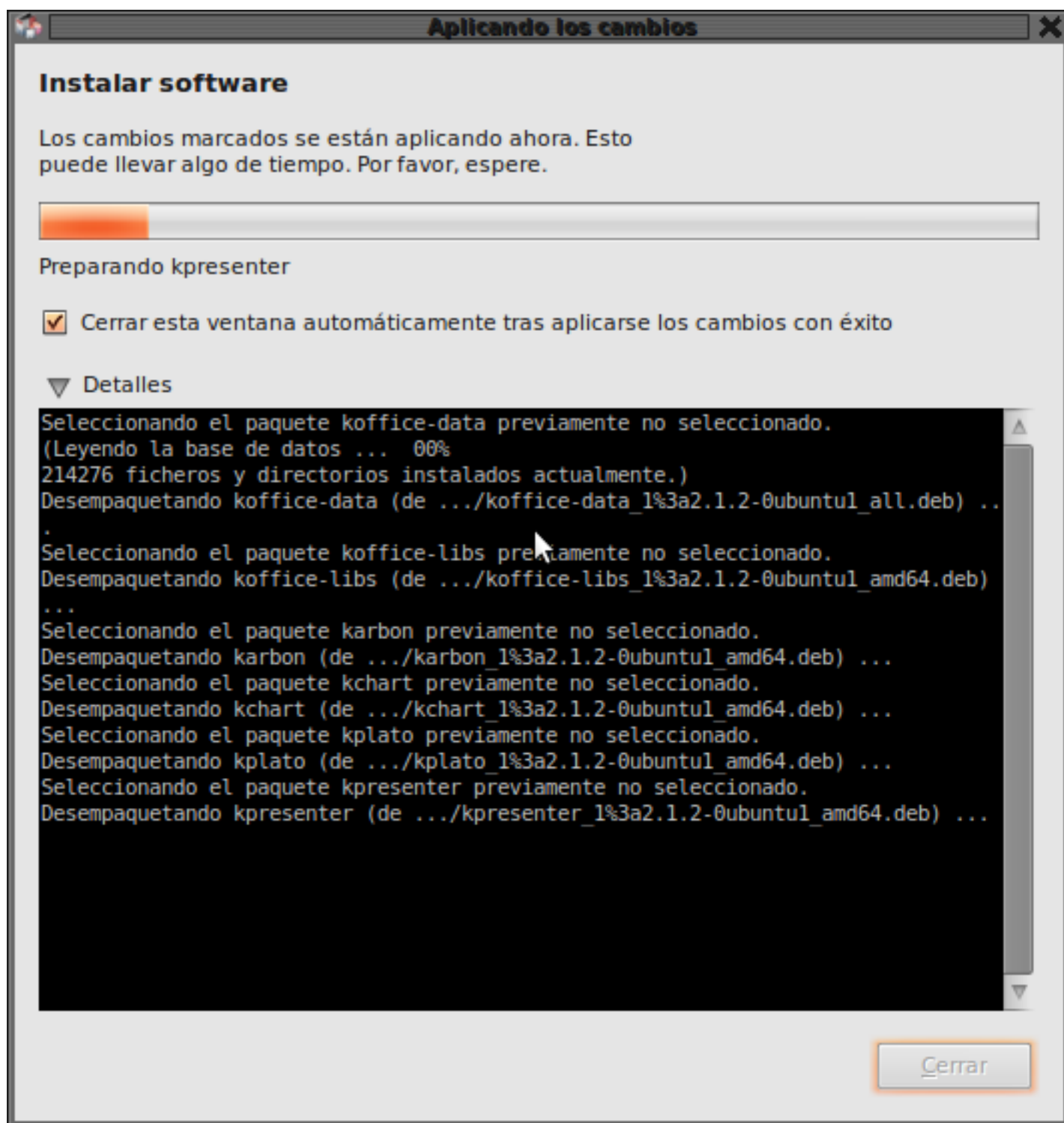


Figura 3.5: Cuadro de progreso de instalación de paquetes.

Es posible que durante la instalación de los paquetes tengamos que realizar configuraciones específicas de los mismos.

Para instalar un entorno completo de ejecución de aplicaciones LAMP es necesario instalar los siguientes paquetes: apache2, libapache2-mod-php5, php5-mysql y mysql-server. Para ello utilizaremos Synaptic tal como se ha explicado anteriormente. Aparecerá una pantalla de configuración similar a la siguiente.

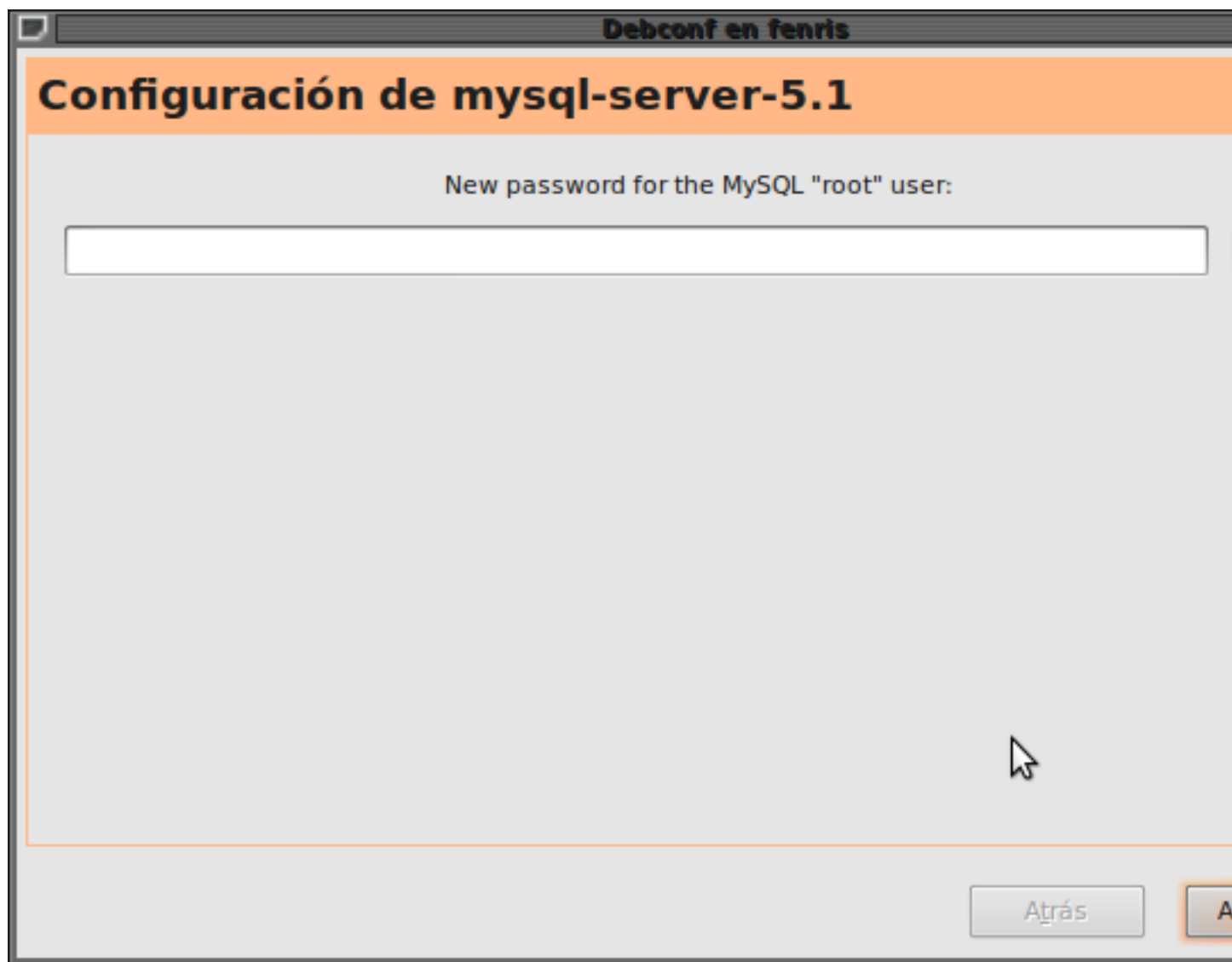


Figura 3.6: Cuadro de configuración del servidor de Mysql.

Aquí podremos configurar la contraseña del usuario administrador del servidor Mysql "root".

Cuando se hayan terminado de instalar y configurar todos los paquetes ya podremos empezar a probar la instalación realizada.

El directorio principal de Apache en Ubuntu es /var/www por lo que todas las carpetas y ficheros que se encuentren en dicha carpeta serán accesibles a través del navegador mediante la dirección <http://localhost/>.

Para ello

3.2. Instalación de una LAMP en OpenSuse 10.2

En OpenSuse 10.2 esta tarea es muy sencilla, describimos ahora todos los pasos:

- Entre en el Menú de Acciones (KickOff) en el apartado de PC y pulse en el Configurador de administración YAST.



Figura 3.7: Entrada a YAST desde KickOff

- Valídense como Superusuario. En cuanto intente entrar en YAST deberá introducir la contraseña del SuperAdministrador (root) y pulsar en el botón Aceptar.

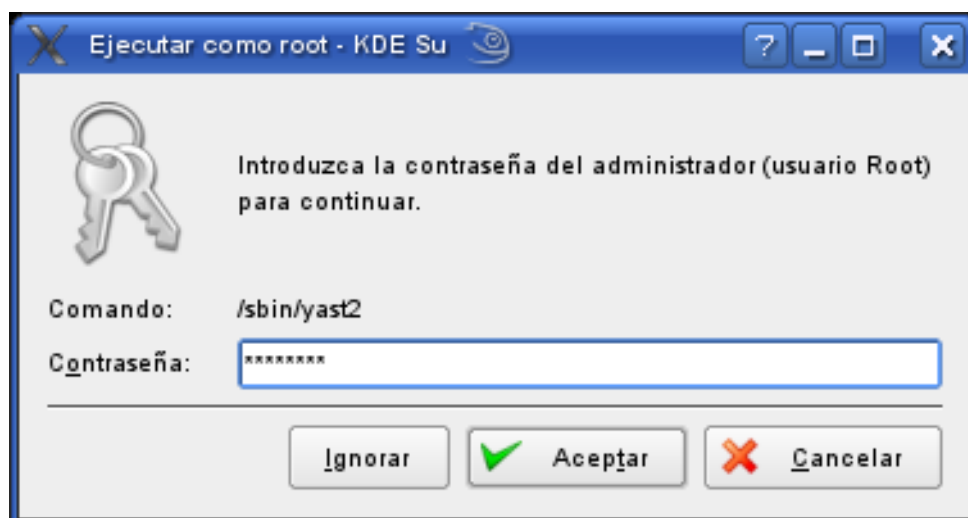


Figura 3.8: Cuadro de diálogo para introducir la contraseña de administrador.

- En la pestaña de Software pulse en el icono de Instalar/desinstalar Software.

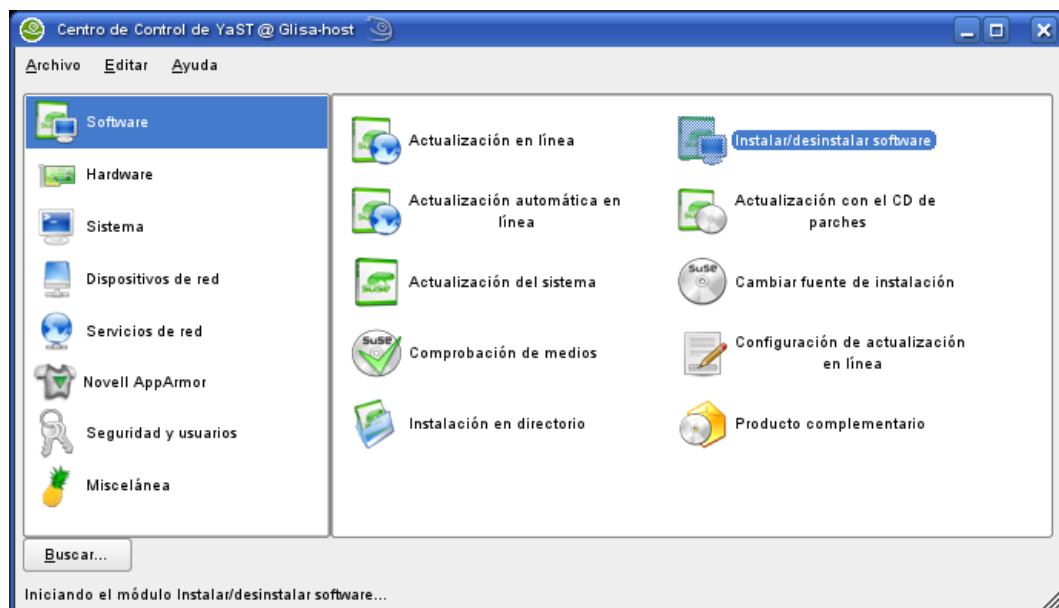


Figura 3.9: Acceso a herramienta de instalación y desinstalación de Software

- En la pestaña de Software pulse en el icono de Instalar/desinstalar Software.

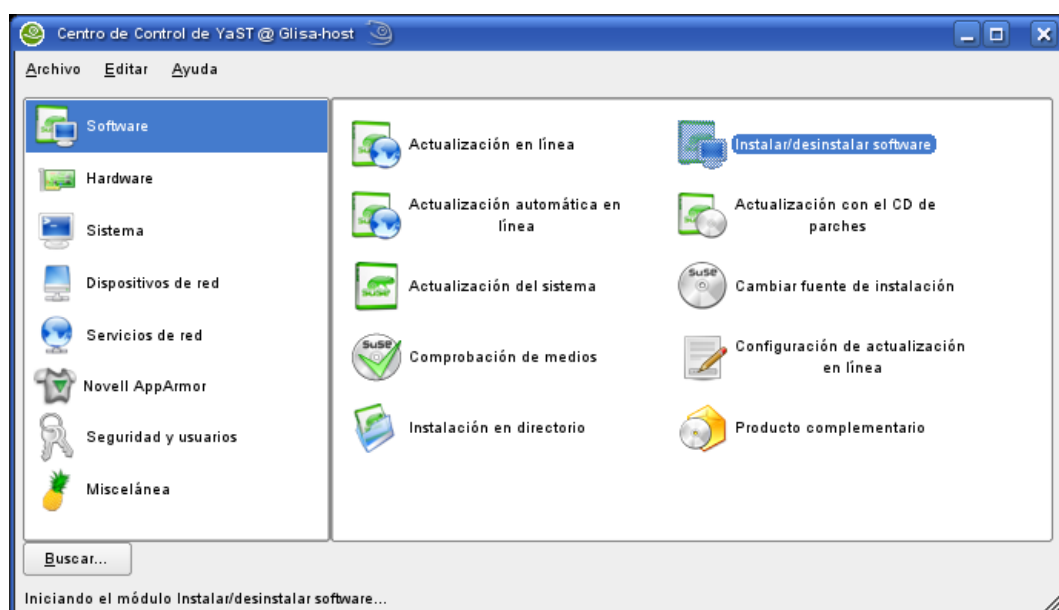


Figura 3.10: Acceso a herramienta de instalación y desinstalación de Software

- Una vez haya entrado en la herramienta se actualizarán los listado de Software disponibles para su manejo.

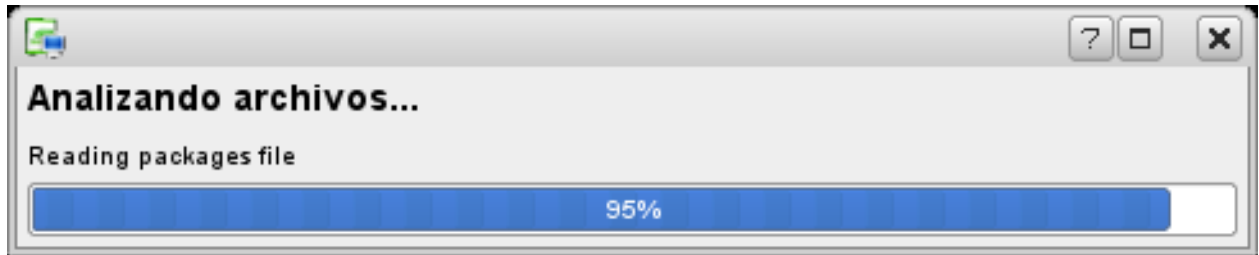


Figura 3.11: Acceso a herramienta de instalación y desinstalación de Software

Cuando haya terminado de gestionar los listados, aparecerá una pantalla similar a la siguiente:

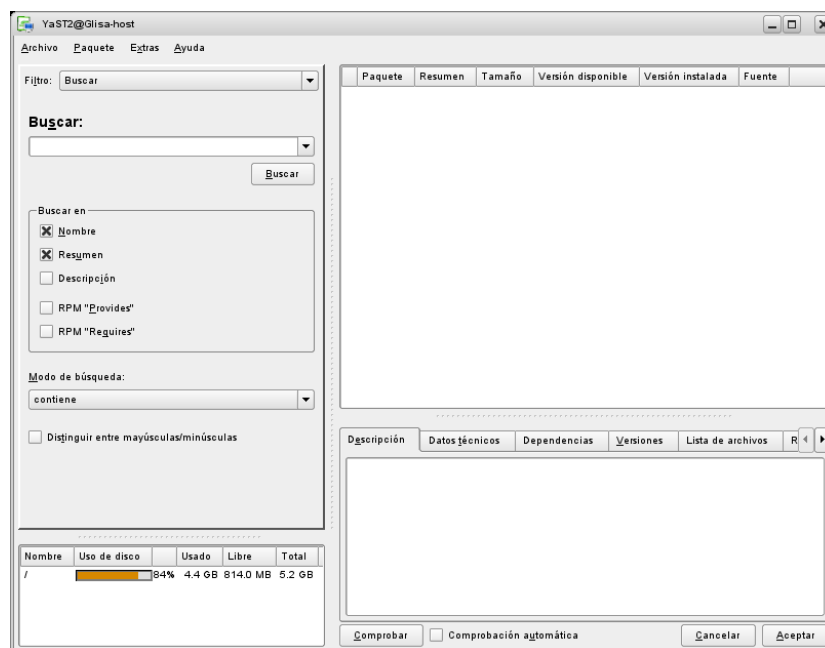


Figura 3.12: Pantalla principal de instalación y desinstalación de paquetes.

- En la parte superior derecha de la pantalla aparece una etiqueta llamada filtro y una lista desplegable. pulse en ella y seleccione Patrones. Aparecerá un listado en la parte de la izquierda de la pantalla similar al siguiente:

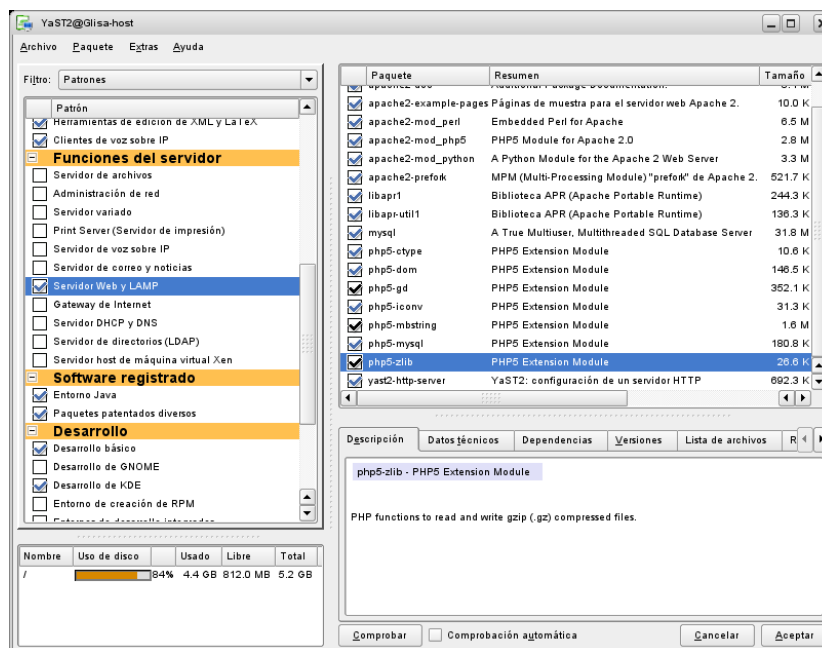


Figura 3.13: Acceso a herramienta de instalación y desinstalación de Software

En dicho listado aparecen grupos de paquetes con funcionalidades acompañados de una caja de selección al lado izquierdo de cada uno de ellos. Para seleccionar alguno de ellos pulse con el botón izquierdo en cualquiera de las cajas de selección, esta caja aparecerá marcada con un símbolo de visto bueno, también verá que en la parte de la derecha de la pantalla principal, los paquetes individuales aparecerán todos seleccionados. Para deseleccionar un patrón repita la misma operación, verá que el símbolo de visto bueno desaparecerá de la caja de selección.

- Seleccione el patrón denominado Servidor Web y LAMP.

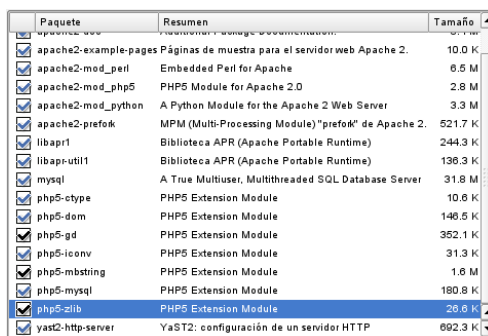


Figura 3.14: Paquetes individuales seleccionados.

- Pulse en el botón Aceptar. Aparecerá la pantalla de descarga de paquetes desde los medios:

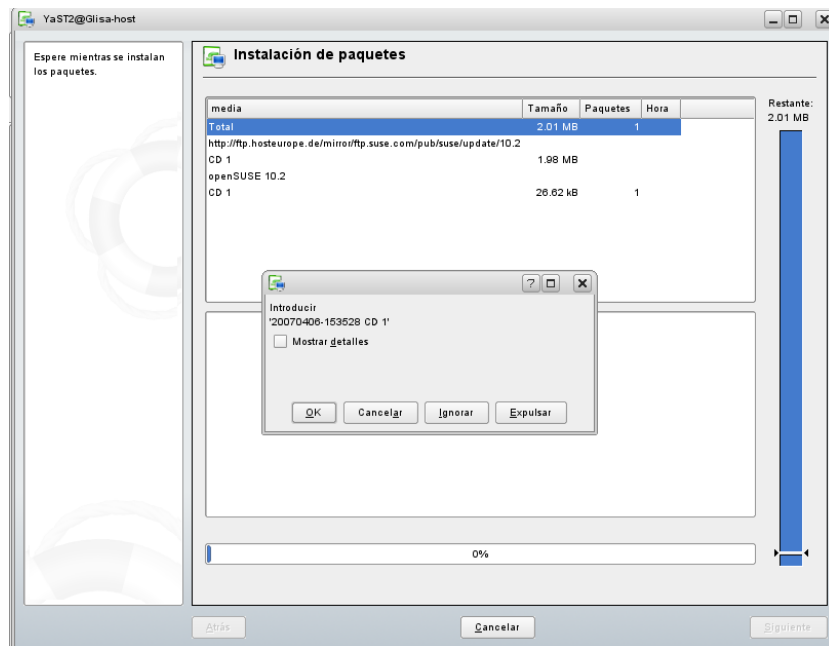


Figura 3.15: Paquetes individuales seleccionados.

Introduzca el CD o DVD de instalación de OpenSuse 10.2. y pulse en el botón Ok. Se iniciará la descarga de paquetes individuales.

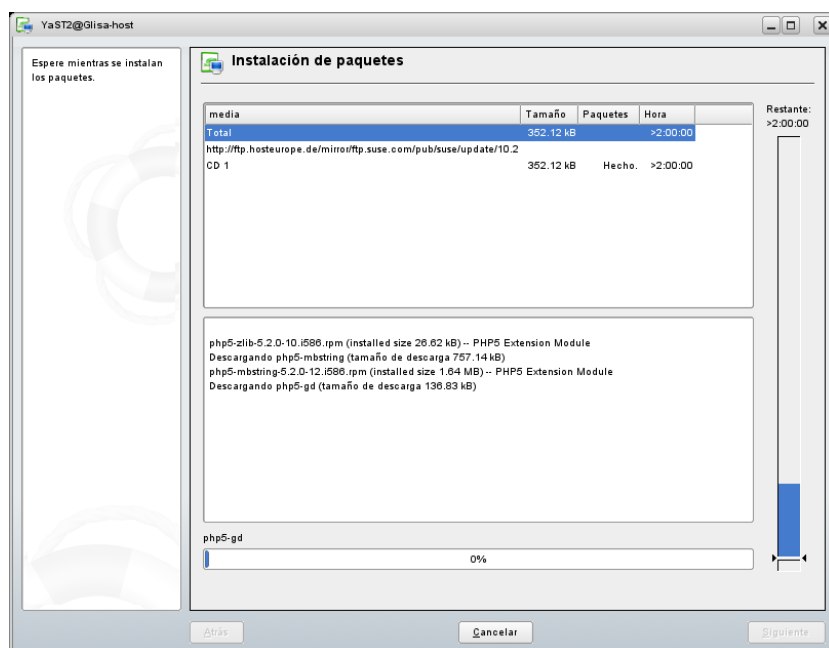


Figura 3.16: Descarga de paquetes.

A continuación se configurarán los paquetes y servicios con YAST.

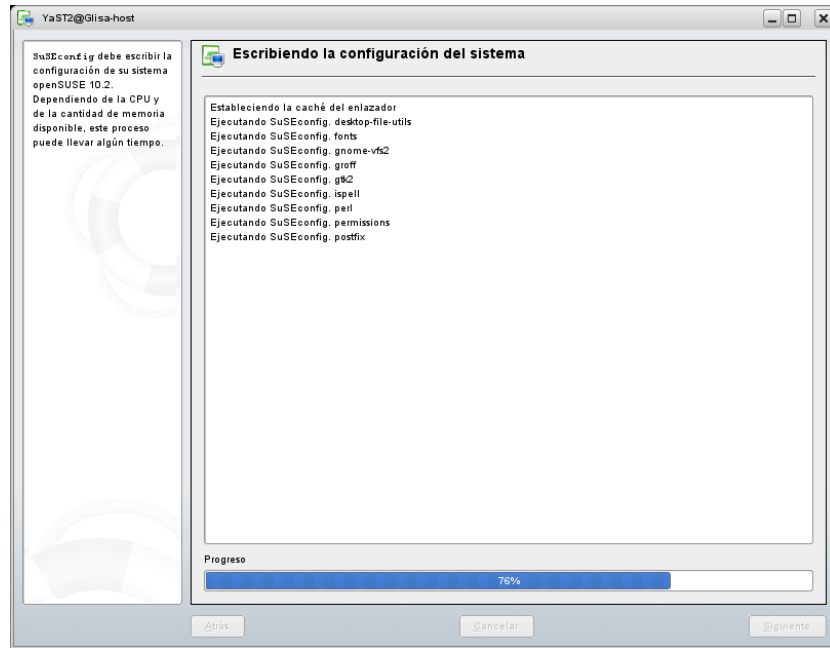


Figura 3.17: Configuración de paquetes y Servicios.

- A continuación pulse en el botón No en el cuadro de diálogo.

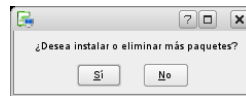


Figura 3.18: pregunta de seguir instalando o no paquetes.

Se cerrará la venta de instalar y Desinstalar paquetes.

- A continuación pulse en el botón No en el cuadro de diálogo.

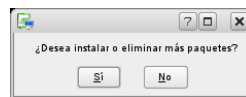


Figura 3.19: Pregunta de seguir instalando o no paquetes.

Se cerrará la venta de instalar y Desinstalar paquetes.

- A continuación necesita activar el servidor Apache y el PHP. Para lo cual debe entrar en YAST en la pestaña Servicios de red en el icono Servidor HTTP.

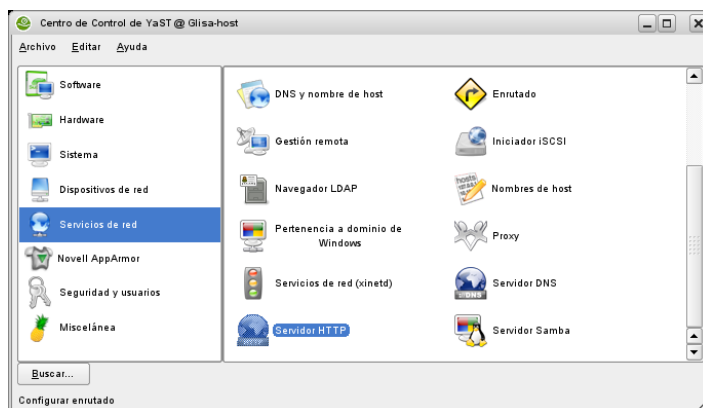


Figura 3.20: Acceso a la configuración de Apache y PHP

- Después aparecerá la primera pantalla de configuración de Apache. En ella deberán aparecer: el puerto por el que escuchará las peticiones web (por defecto 80) y las direcciones ip por las que se permite que escuche el servidor web(127.0.0.1 por defecto). Pulse en el botón Siguiente.

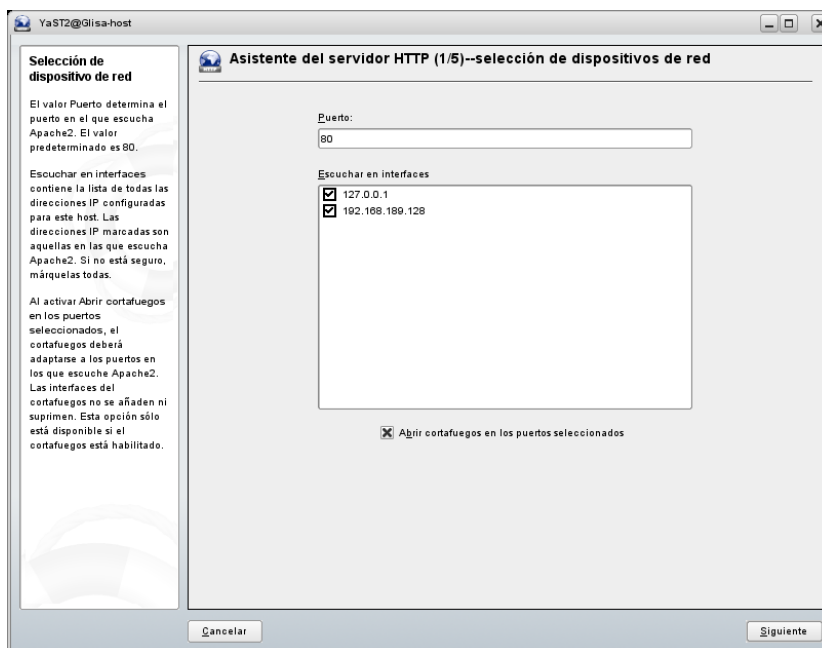


Figura 3.21: Control de acceso por puerto e IP's.

- A continuación deberá marcar (si no lo está hecho ya) el cuadro de selección al lado de Habilitar lenguaje de guiones PHP5. Pulse en Siguiente.

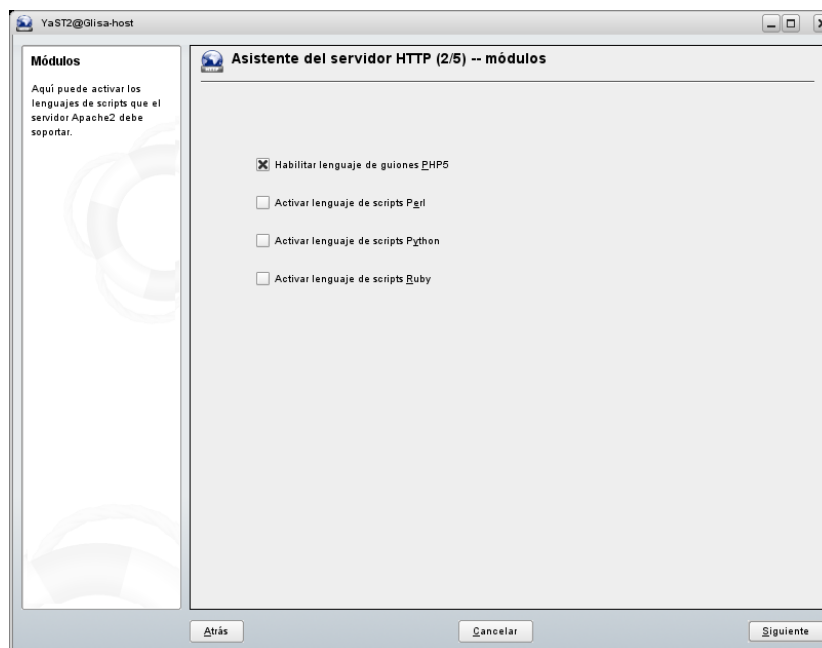


Figura 3.22: Control de lenguajes de scripting.

- A continuación puede ser los parámetros básicos del servidor, tales como directorio principal, dirección de correo del administrador, etc. Pulse en Siguiente.

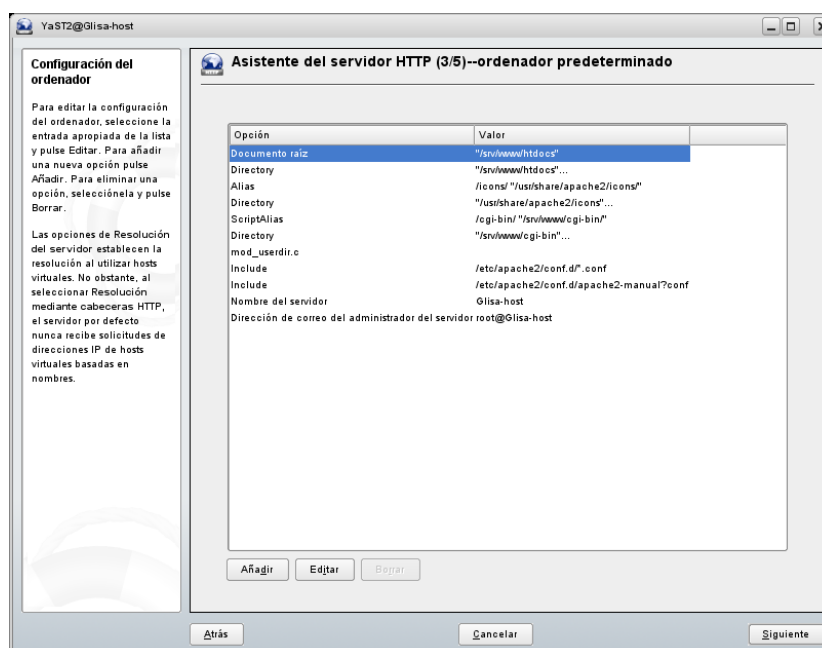


Figura 3.23: Configuración de parámetros básicos.

- Después podrá ver los Sitios Web Virtuales que maneja el servidor, si no desea manejar ninguno más pulse en Siguiente. Si desea configurar un nuevo Sitio Web Virtual pulse en añadir y siga los siguientes pasos.

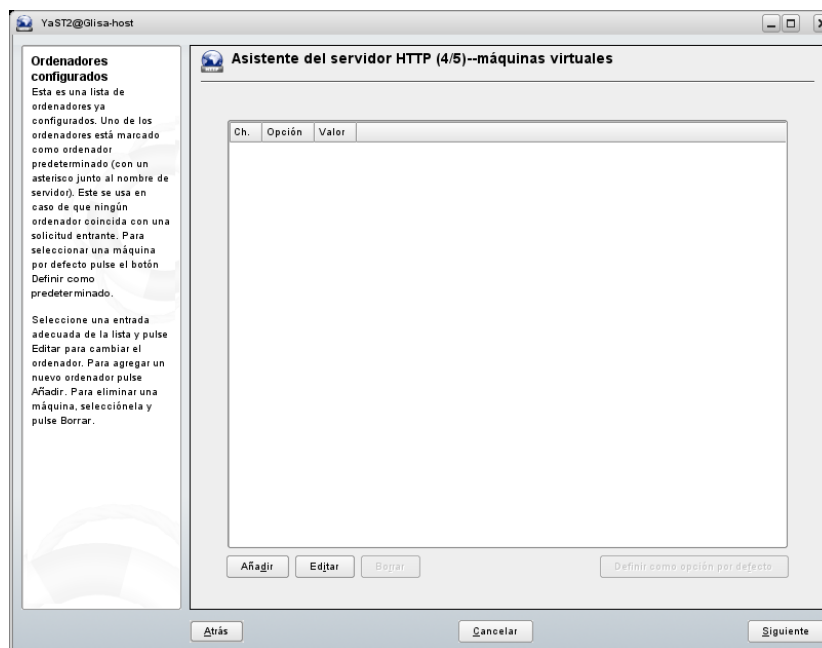


Figura 3.24: Configuración de Sitios Web Virtuales.

- A continuación introduzca los parámetros de configuración del nuevo servidor virtual: nombre del servidor, directorio principal del Sitio Web Virtual y el correo del administrador del sitio web virtual. Pulse en el botón Siguiente.

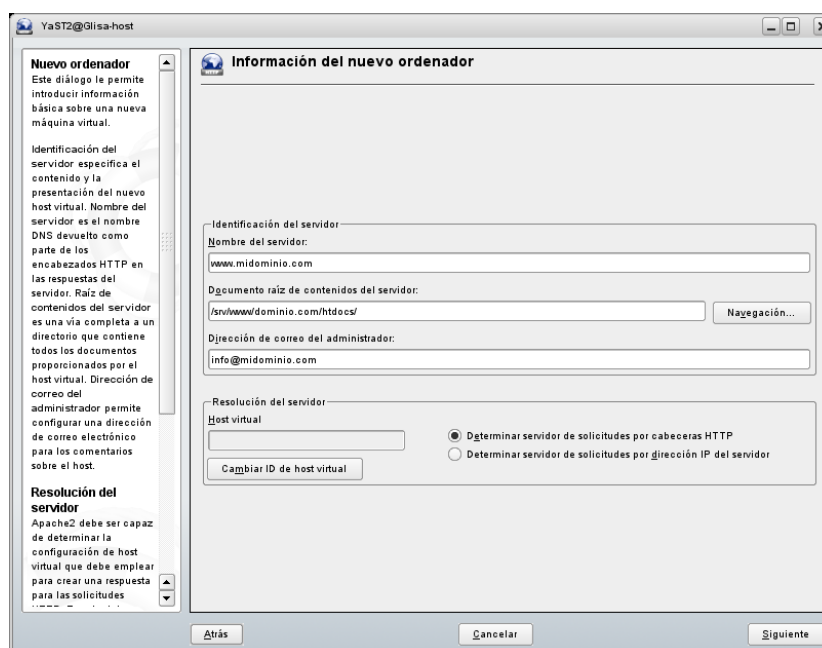


Figura 3.25: Datos básicos de un Sitio Web Virtual.

- A continuación introduzca otros parámetros de configuración del nuevo servidor virtual: acceso a CGI, HTML público, etc.. Pulse el botón Siguiente.

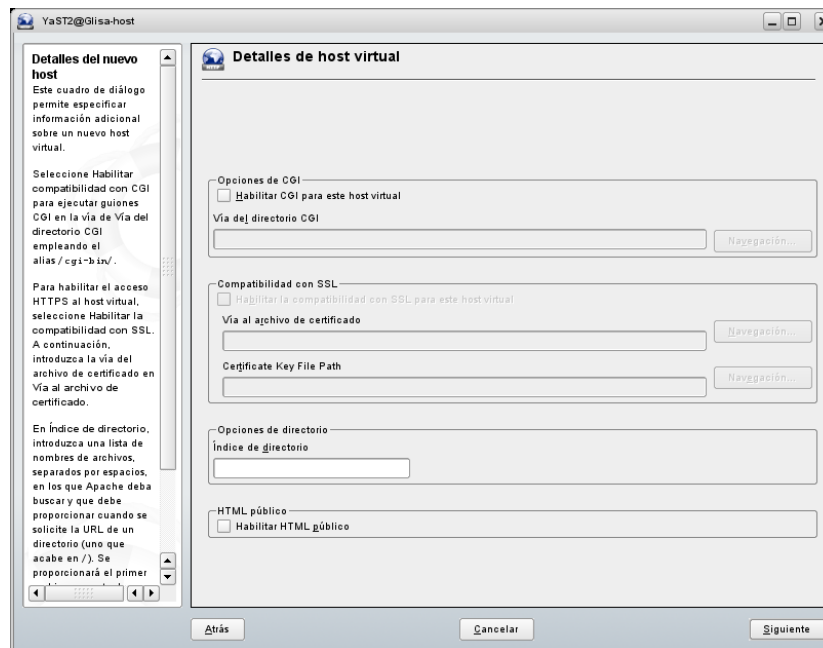


Figura 3.26: Datos de Scripting de un Sitio Web Virtual.

- Después de añadir el nuevo sitio Web Virtual. Pulse en Siguiente.

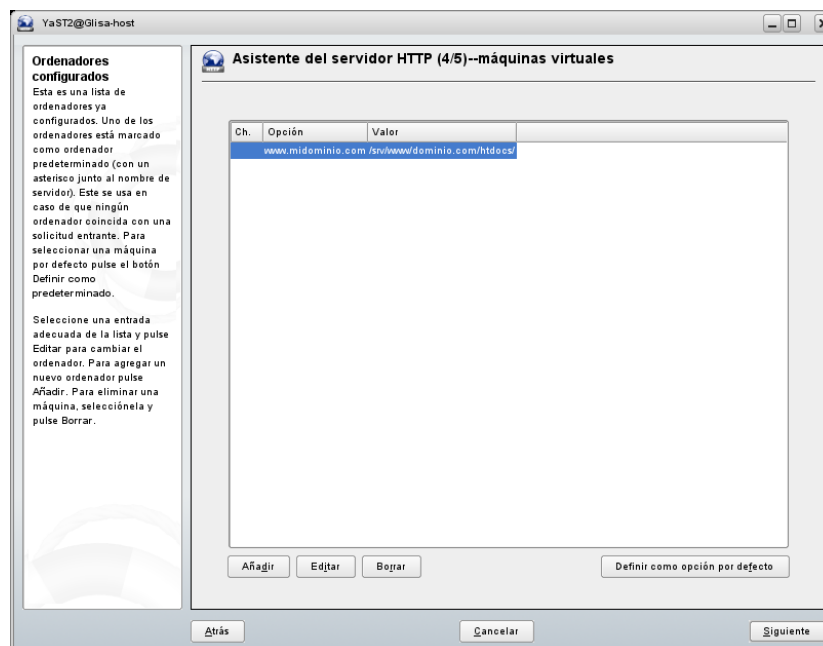


Figura 3.27: Datos de Scripting de un Sitio Web Virtual.

- Después de configurar los Sitios Web Virtuales, marque la opción Iniciar el servidor web en el arranque. Pulse en Siguiente.

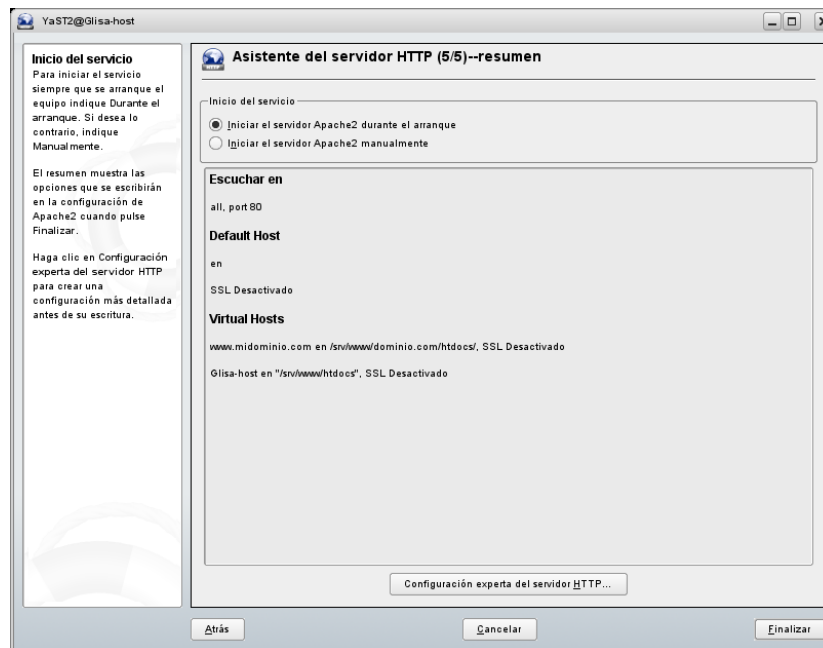


Figura 3.28: Configuración del arranque del servidor.

- A continuación se configurará el servidor web y se rearrancará si es necesario. Pulse en Finalizar.

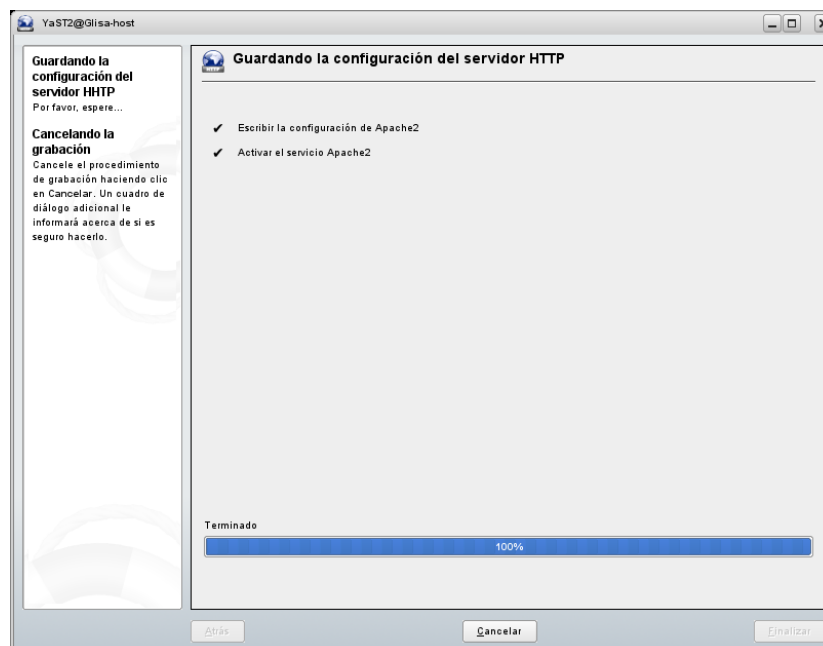


Figura 3.29: Aplicación de las configuraciones del servidor web.

- A continuación introduzca la url en el navegador web y compruebe que se visualiza correctamente.

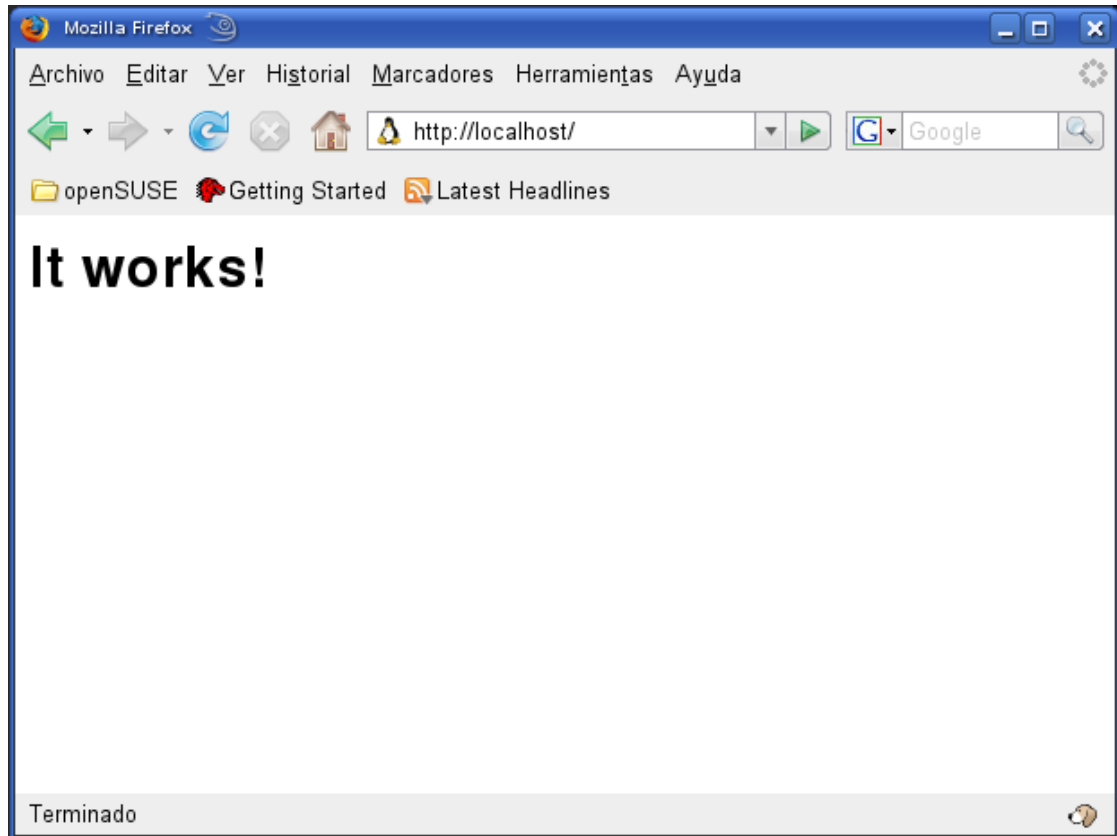


Figura 3.30: Visualización de prueba del servidor web.

- Ahora es necesario comprobar si el módulo de php funciona correctamente, para lo cual es necesario crear un fichero index.php en el directorio principal del dominio del Sitio Web Virtual. Para ello necesita abrir una terminal con permisos de superadministrador, esto se puede conseguir si va al Menú de Acciones, pestaña Aplicaciones, submenú Sistema, submenú Terminal, icono Programa de terminal - modo de superusuario. Le solicitará la contraseña del superadministrador (root), introduzcala pulse en el botón OK.

Una vez abierta la terminal ejecute los siguientes comandos:

```
echo "" >/srv/www/htdocs/index.php
```

```
chmod 777 /srv/www/htdocs/index.php
```

Evidentemente la ruta debe coincidir con la localización del directorio raíz del Sitio Web Virtual

Después abra su navegador e introduzca la url seguido de /index.php En nuestro ejemplo www.midominio.com/index.php Si se abre correctamente podrá ver la información del módulo php instalado en su Apache.

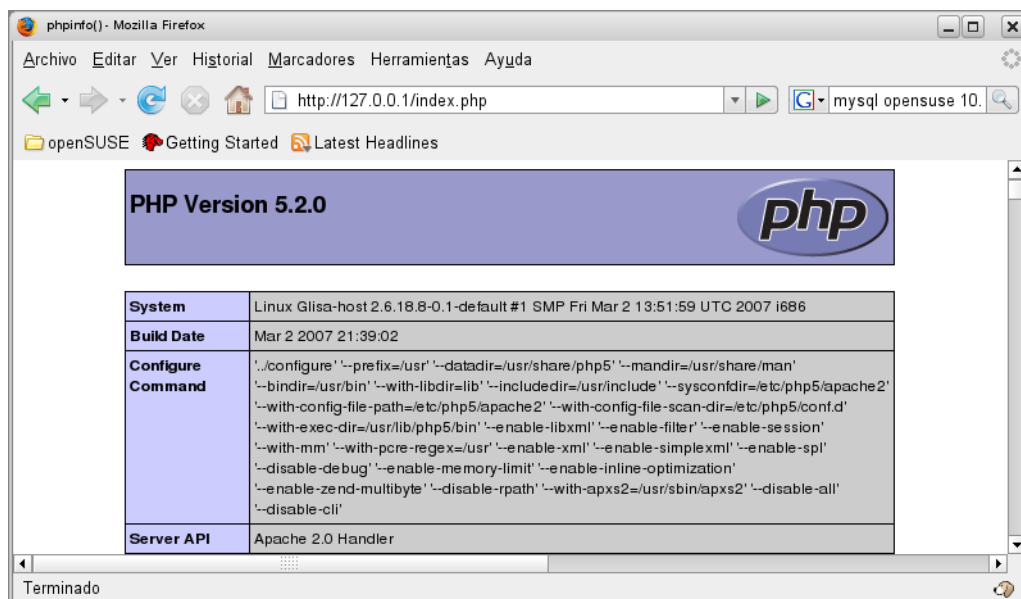


Figura 3.31: Visualización de prueba del módulo PHP.

3.3. Configuración de Mysql

A fin de poder arrancar automáticamente en el arranque el servidor Mysql es necesario modificar los niveles de arranque. Para lo cual entre en YAST y vaya a la pestaña Sistema y entre en el editor de niveles de ejecución.

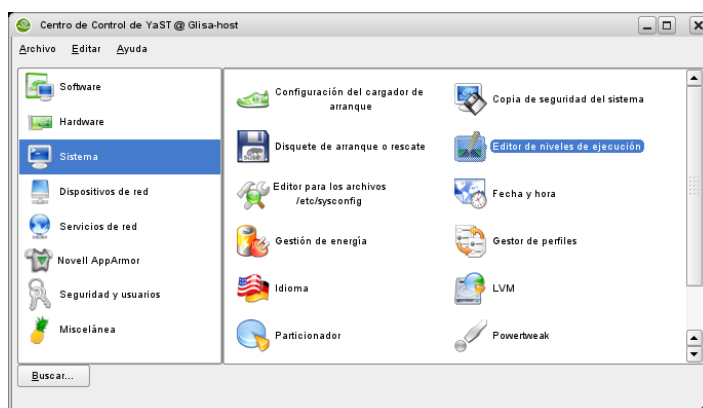


Figura 3.32: Entrada al editor de niveles de ejecución.

Los pasos a seguir son los siguientes:

- A continuación selecciones el servicio Mysql con el botón derecho del ratón y pulse el botón Activar situado abajo a la izquierda de la pantalla.

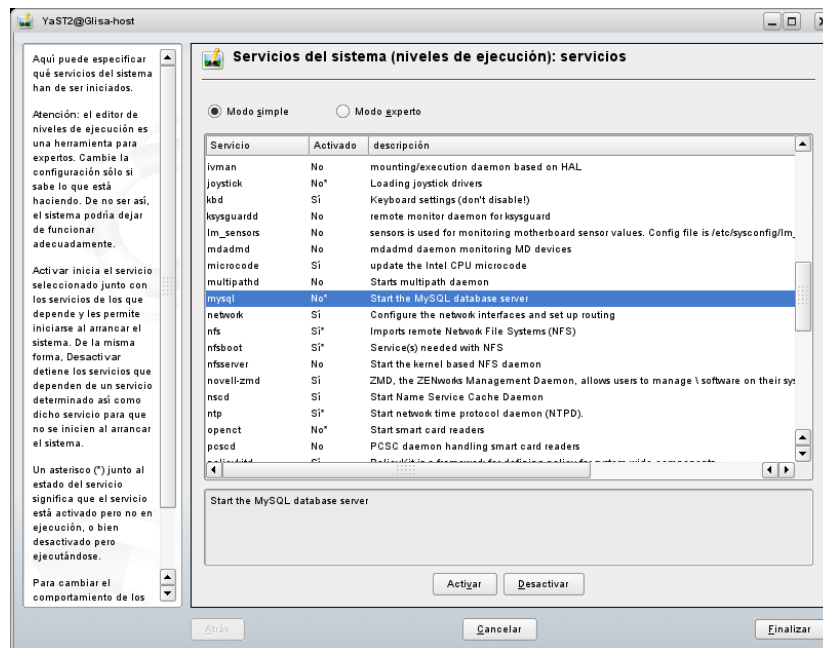


Figura 3.33: Visualización de prueba del servidor web.

Una vez activado el servicio sandrá una pantalla con el resultado (debería marcar un éxito en el proceso de activación). Pulse en el botón Ok. Después pulse en el botón finalizar.



Figura 3.34: Pantalla del resultado del proceso (con éxito).

Después pulse el botón Finalizar para que se apliquen los cambios. Cuando salga la pantalla de validación pulse en Si.

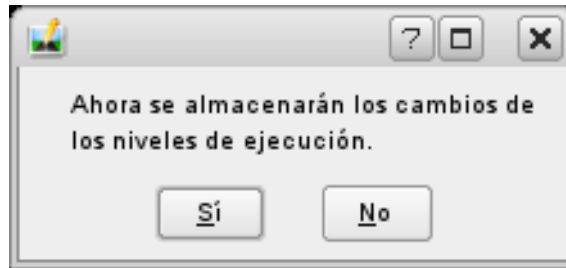


Figura 3.35: .

Sería conveniente recordar que el usuario por defecto de mysql tras la instalación es root y no dispone de una contraseña asignada. A fin de poder gestionar correctamente Mysql pasaremos al siguiente paso, Instalar la aplicación Web Phpmyadmin

3.4. Instalación y configuración de PhpMyadmin

Para poder gestionar de una manera sencilla Mysql, instalaremos Phpmyadmin, una herramienta de gestión de Mysql vía web. Así mataremos dos pájaros de un tiro.

Los pasos a seguir son los siguientes:

- Descargarse la última versión de Phpmyadmin, por ejemplo desde aquí: <http://ovh.dl.sourceforge.net/sourceforge/phpmyadmin/phpMy2.10.0.2-all-languages-utf-8-only.tar.gz>
cuando nos pregunte el navegador qué hacer con el le diremos que queremos guardarlo en el disco duro, en el escritorio por ejemplo.
- Una vez descargado el fichero deberemos descomprimirlo, para lo cual pulsamos sobre él para abrirlo y descomprimirlo tb en el escritorio
- Después debe copiar el contenido de la carpeta que incluya el index.php al directorio /srv/www/phpmyadmin
Debe recordar que para hacer esto es necesario realizar esta operación como superadministrador del sistema.
- Después debe modificar los permisos de la carpeta para que el usuario root tenga permisos de acceso a los ficheros.
- Después debe comprobar mediante el navegador que tiene acceso a la url <http://localhost/phpmyadmin/index.php>. En nuestro ejemplo: <http://www.midominio.com/phpmyadmin/index.php>

Apéndice A

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