

## Mastering Linux, part 8

In this month's instalment of the **Mastering Linux series**, **Jarrod Spiga** explains how to get the most from the Internet, email and Windows networking under X-Windows.



### Bonus DVD software

**Mozilla Firefox 1.0.2**  
• Mozilla Thunderbird 1.0.2  
• Mastering Linux, part 2 PDF.

### Skill level

Intermediate

### Requirements

An installation of Linux (Fedora Core 3 was used in the writing of this article, and can be installed from the APC January cover DVD) • a working network or Internet connection.

### Time to complete

3 hours (approx)

Last month's instalment of the Mastering Linux series detailed some of the networking functions which can be performed from the command line. Now it's time to head back into X-Windows, and this month's Workshop will cover Web browsing, FTP, email from the desktop and transferring files to and from Windows systems using SMB shares.

### BRING ME UP2DATE

The first networking tool, up2date, updates all software packages installed in your repositories on the Internet.

Like Windows, open source software has security vulnerabilities. Most applications used in this series have had security weaknesses fixed since the release of Fedora Core 3, demonstrating the importance of regular system updates. Most Fedora systems have the Red Hat Network Alert Notification Tool running in the system tray at the top right-hand side of the screen (updates are available if an exclamation mark over a red circle appears).

Before you download any updates, configure the system to get them from a local Fedora mirror. The default update repositories are often very busy and take a lot longer. An explanation of how to reconfigure the up2date tool is provided in the

PDF version of Mastering Linux, part 2 (included on this month's cover DVD).

To proceed with the system update, right-click on the icon and select Launch up2date. Enter your root user credentials, confirm which mirrors to download from, and up2date will fetch the headers for all available updates.

By default, up2date is configured to skip the kernel packages since updating the kernel in this way can render a system unbootable (updating the kernel will be covered in a future instalment of this series).

Click Forward and select all packages to update. Up2date will resolve any dependencies, then download and install the updates.

### BROWSING

Fedora Core 3's default browser is Mozilla Firefox 1.0 (which up2date should have upgraded to at least version 1.0.3 — the version current at the time of writing). Firefox functions almost identically in Linux and Windows, with tabbed browsing, pop-up blocker and an extensive plug-in framework.

Go to the Quick Launch toolbar at the top of the X-Windows desktop and click on the Firefox icon. The browser can render most sites on the Internet, and supports Flash, Shockwave, RealPlayer and Java plug-ins, among others.

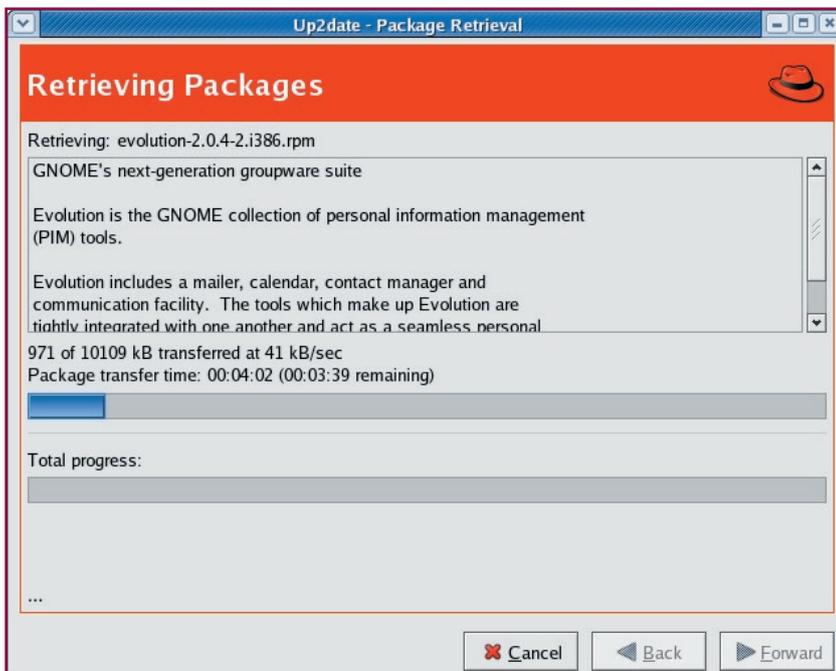
Media plug-ins can usually be downloaded on-the-fly. For instance, when you visit a site that requires Flash, the animation is replaced by a small dialog stating that the site requires a Flash plug-in. Click on this dialog and the Flash player is automatically installed on your system. Many other extensions available for Firefox can be downloaded from <https://addons.update.mozilla.org/extensions/?os=Windows&application=firefox>.

Sadly, some features don't work in Firefox, for instance ActiveX, the proprietary Microsoft technology that allows sites to run more like applications (some experts consider it a major security risk). In Windows, you can work around this by loading that particular site in Internet Explorer. Unfortunately, that option isn't available to Linux users.

### CORPORATE EMAIL

Email is probably the most important aspect of the Internet for many users. A secure and feature-rich email client is a necessity for communication and collaboration. The features required will usually determine which email client is used.

Fedora Core 3 installs a copy of Novell Evolution by default. This application was formerly called Ximian Evolution, but changed names when Novell acquired Ximian's assets. Evolution is the



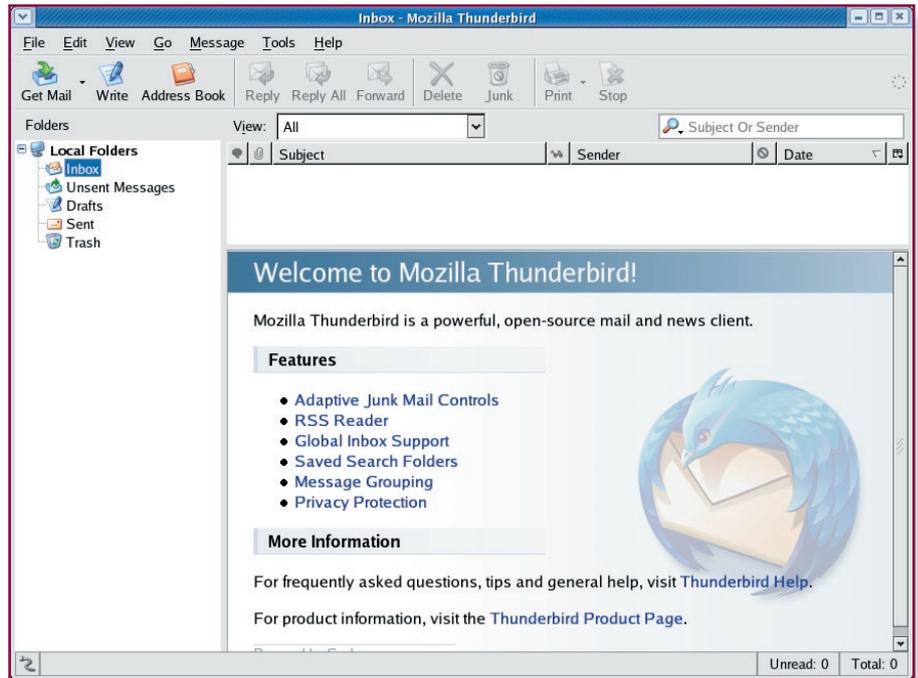
**Play fetch:** regularly updating all installed packages is a good idea to maintain security.

► Linux equivalent of Microsoft Outlook — an email client, plus a full suite of collaboration tools.

When used in conjunction with the Evolution Connector, connections can be established with Microsoft Exchange 2000 and 2003 servers (provided Outlook Web Access is enabled on at least one of the front-end Exchange Servers in your domain). The inability to work with Exchange Servers has prevented the adoption of Linux in many corporate environments. The Evolution Connector (not usually installed by default) means this is no longer the case.

To add it to your system, navigate to GNOME > System Settings > Add/Remove Applications (root user credentials are required to add or remove software on your Linux system). If you look under the details of the Graphical Internet branch, you should see the Connector option awaiting your approval.

Once the connector is installed, launch Evolution by clicking on the email button in the Quick Launch bar. The first time Evolution starts up, a wizard will guide you through the process of configuring the connection to the Exchange server. A new Exchange Server connection can be added to an existing Evolution profile by selecting Tools > Settings > Mail Accounts > Add.



**Slam spam:** one of Thunderbird's strengths is its accurate spam filtering.

After completing the identification information, select the Microsoft Exchange option from the Server Type drop-down menu. You can also set up IMAP, POP, Novell GroupWise accounts, or even use fetchmail

(APC June, page 116). Fill the relevant fields with information about your front-end Exchange Server.

**BACK TO BASICS**

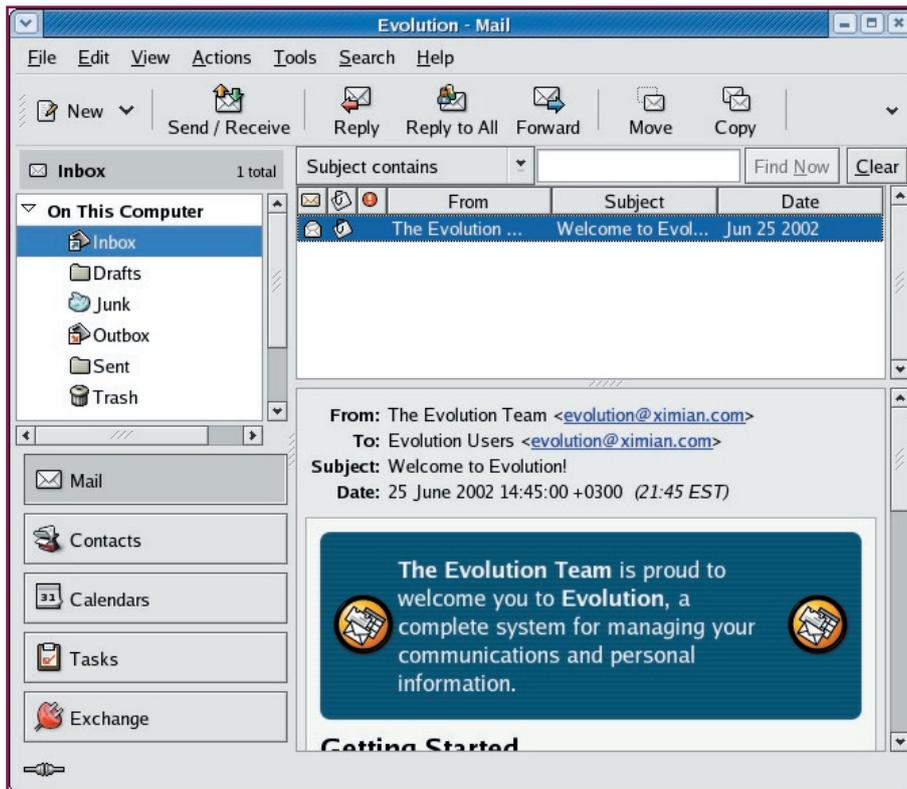
Using a large email client which supports task lists, calendar, contact management and notes is overkill if the features aren't required. To simply send and receive email, a lightweight client such as Mozilla's Thunderbird might be better.

Thunderbird isn't included in the Fedora Core 3 distribution, but version 1.0.2 is included on the cover DVD. The most up-to-date version can be downloaded from [www.mozilla.org/products/thunderbird](http://www.mozilla.org/products/thunderbird).

Before installing Thunderbird, you should be logged in to X-Windows as the root user. Double-click on the tar.gz file and extract the contents of the Thunderbird directory to a location under the /root directory.

The installation instructions say that once extraction is complete, navigate to this location and double-click on the "thunderbird" script. However, doing this under Fedora Core 3 won't install Thunderbird. This is because Thunderbird requires the libXp.so.6 component, which has been deprecated in Fedora Core 3.

It's possible to install the necessary library files if you know where to look. Load Nautilus from either the Fedora Core 3 CD 2 or the Fedora Core 3 DVDs and search for a file named



**Natural Evolution:** Novell's Evolution email client was created specifically for corporate email users, but many power users will appreciate its organisation features.

► xorg-x11-deprecated-libs-6.8.1-12.i386.rpm under the Fedora/RPMS directory. Double-click on the file and press the Continue button to install the deprecated library files.

Once these are installed, you can then return to the location the Thunderbird installation files were extracted from and execute the thunderbird script (double-click on it or run it from a command line). The installer asks whether you want to import preferences from compatible mail applications. When the installation is complete, a wizard pops up to guide you through configuring the email profile.

### FTP

Mastering Linux, part 7 (APC June, page 116) briefly demonstrated the method for connecting to FTP sites from the command line, and the basics of transferring files. While it's handy to know how to do this if you're stuck at a command line, using FTP from the GUI is much easier.

The gFTP application is included with Fedora Core 3 but again, it's often not installed by default. To install it, use the same process as Evolution Connector, but select a the gFTP box at the package selection screen.

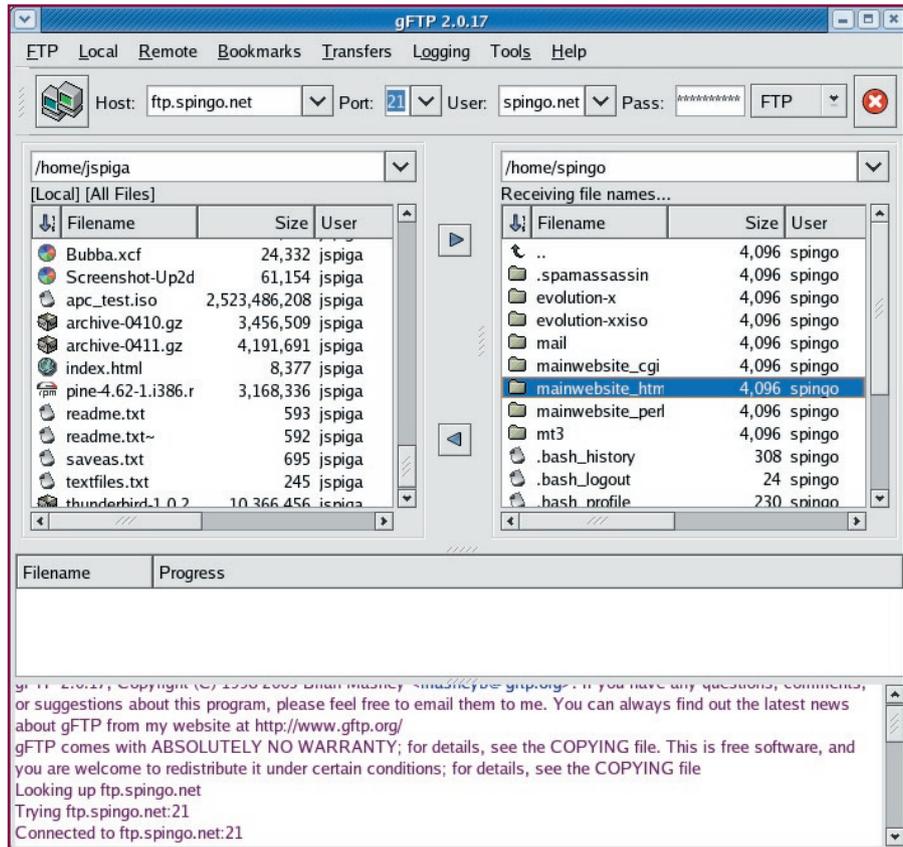
Once installed, launch gFTP by navigating to GNOME > Internet > gFTP. The main screen looks a lot like most FTP applications. Along the top lies a quick connect toolbar which allows quick and easy connection to FTP servers. The left pane contains a list of files and directories on the local system, while the right pane holds the details of what's on the remote server. The bottom section of the window lists file transfers currently in progress and a log of what the client is doing.

Transferring files is usually as simple as connecting to a remote FTP server, selecting the file to up- or download, and then clicking on one of the buttons in between the left and right panes. The arrow pointing to the right is for uploading to the remote server, while the left-facing arrow is used to download data to your system.

### INSTANT MESSAGING

One application not available at the command line is instant messaging (IM). Considering much of the development currently occurring in Linux is based on improving efficiency, it's not surprising to find there's a single client that handles just about every IM protocol on the Internet.

This client is called Gaim, and can be launched by clicking on GNOME > Internet > IM. When launched, you'll be asked to



**Ready to transfer:** the data in the left pane is stored on the local system, while the right pane shows what's on the remote system.

configure the client with the corresponding IM service. Add as many accounts using as many protocols as you like — Gaim consolidates them into a single contact list.

Gaim provides a basic messaging facility for all of the popular IM protocols including MSN Messenger, ICQ, AOL Instant Messenger and Yahoo! Chat, and some of the lesser-known ones. Note that not all of the features — such as the animated winks, online games and remote desktop support — of the supported protocols are available.

### WINDOWS NETWORKING

Since it's rare to encounter a network without at least one Windows PC on it, the ability to access data from Windows systems via the network is a requirement for most Linux boxes. Many Linux distros don't include a network browser (such as Network Neighborhood or My Network Places), but with a little knowledge of your network, you can connect to Windows systems via the desktop file managers at your disposal.

Windows shares resources by using the Server Message Block (SMB) protocol. The easiest way to start browsing the SMB shares on a Windows system is to load a Nautilus

window and enter the following text in the Location bar:

```
smb://<system name>
```

where <system name> is the name of the target system.

Nautilus invokes another Linux application, Samba, for the SMB protocol and to communicate with the Windows system. Once connected, you can browse through the files and directories on the remote machine as if it were local (assuming you have the network privileges to do so).

Under Fedora Core 3, you can browse for network resources using just a few customised Nautilus screens. This is accessible via GNOME > Network Servers > Windows Network, but it's even more unreliable than Windows' Network Neighborhood. **ADC**

### Next month . . .

**Part 9 of the Mastering Linux guide will demonstrate how to install software packages using package management tools, and by building and compiling source code from scratch.**