

Setting up a Linux server

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About this document

This document is a PDF of a presentation given by Ryan Cartwright on 9 November 2005 at the Open Source/Voluntary Sector (<http://www.socialsource.org.uk/>) day in London.

The original can be found at <http://www.cafamily.org.uk/oss/> along with explanations of how Contact a Family use Free and Open Source Software. There is also a case study for download.

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No further explanation is provided here beyond the presentation points given on the day. If you have any further questions or enquiries, please contact Ryan Cartwright at it.manager@cafamily.org.uk .

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Preparation

- **Assess your needs**
- **Consult end users**
- **Conduct adequate research**
- **Don't underestimate time required**

Hardware

- **New kit / Old kit?**
 - Fileserver: P4 3Ghz / 1Gb RAM / 160 Gb HDD
 - Firewall: P1 200Hz / 64 Mb RAM / 6 Gb HDD
- **RAM or Storage or both?**
 - More processes = more RAM (e-mail / web)
 - More data storage = HDD (fileserver)
- **Backup strategy**
- **nVidia not required**

One server to serve them all?

- **Space saver or too many things to go wrong?**
 - Fileserver, Mail/ Web server, Firewall
- **Only expose what you need to**
 - DMZ: Mail / Web
 - Internal LAN: Fileserver

Distributions

- **Local/remote administration?**
- **GUI admin only?**
- **Package (program) management**
- **Buy or download**
- **Customised:** SME Server / Smoothwall / IPCop
- **Standard:** Debian, SuSE, Fedora, Ubuntu

Server Software

- **E-mail:** Exim, Postfix, SpamAssassin, ClamAV
- **Fileserving:** Samba, ClamAV, NTP
- **Firewall:** IPTables, Shorewall, OpenVPN
- **Web/Intranet:** Apache, Perl, PHP, Squid
- **Database:** MySQL, PostgreSQL
- **Terminal (thin client):** LTSP
- **DNS/Routing:** BIND / Route
- **Webmin:** Web based admin

Maintaining it

- **Patch and update management:**
 - distro packages, manually, CD based
- **User admin:** Adding / Removing
- **Troubleshooting**
- **Hardware support**
- **Software support**

Resources

- **Distrowatch:** <http://www.distrowatch.org>
- **Linux Documentation Project:** <http://www.tldp.org>
- **SME Server:** <http://www.contribs.org>
- **Case study:** <http://www.cafamily.org.uk/oss>
- **See Resource Handout** (Next page)

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Resources Handout

Linux Distributions (Distro):

The server/desktop distributions provide a basic OS and then many tools and applications to run on top of it. (i.e. E-mail, web servers, PERL, database server etc.). Some distro's are not always best suited to server use and thus have been excluded here. However pretty much any Linux distro can be used as a server if you choose the correct packages.

The custom distributions are usually based on one of the server/desktop ones but customised to provide specific services only and providing additional tools for admin etc.

Debian - <http://www.debian.org>

Server/Desktop distro. Excellent package management (apt). Quick at update availability. Some technical (not necessarily Linux) knowledge assumed. Guaranteed Free software - no licence worries.

SuSE Linux / OpenSuSE - <http://www.suse.com>

Server/Desktop distro Good admin tool (YAST) for both local and remote admin. Good for beginners. Slower on updates.

RedHat / Fedora - <http://www.redhat.com> - <http://fedora.redhat.com>

Server/Desktop distro. Well known distro. Good for beginners. RedHat is the enterprise/professional version and is expensive. Fedora is its freely available cousin.

SME Server - <http://www.contribs.org>

Custom distro. Provides "all in one solution". Email server, LDAP, Web/Intranet, Fileserver, web admin tool built in.

Mandriva Corporate Server - <http://www.mandriva.com>

Custom distro based on popular desktop one. Custom distro. Provides "all in one solution". Email server, LDAP, Web/Intranet, Fileserver, web admin tool built in.