

## Community-Linux Training Centre Project Documentation: Report No.1

# First Year Project Update

Developed by the Free Range Community–Linux Training Centre Project  
Version 1.1, October 2003 <http://www.fraw.org.uk/cltc/> email: [fraw@gn.apc.org](mailto:fraw@gn.apc.org)



**The Community–Linux Training Centre Project has been developed as a means of promoting the use of Gnu/Linux for education and training amongst community organisations and grassroots activists. This briefing outline the concepts behind the project, and the progress to date.**

### The origins of the project

The Community–Linux Training Centre (CLTC) Project developed from a proposal in 1996 for a laptop-based mobile computer training centre. This project sought funding, about £25,000, from grant bodies, to develop a community-oriented computer training facility. It was Windows-based, hence the large cost of the project.

No one wanted to fund the project. In 2000/2001, the proposal was redesigned as a Linux-based system, and the initial cost dropped to £5,000. Still, no one wanted to fund the project, mainly because the use of Linux in this context was unknown.

In April 2002, the proposal was rationalised again (see box below) using only reclaimed equipment, and funding was sought directly from the activist community. In June 2002, funding was found, and the system was built in July 2002.

### What the CLTC provides

The CLTC is a laptop-based client-server network. One laptop is the server, the other four are clients. The laptops are connected via a fast Ethernet network. A portable printer is run on the network. The server runs all the usual Internet services meaning that it can be used for information and communications technology (ICT) training without the need for a telecommunications link.

The whole system can be run from the mains supply. But the use of laptops means that the system can be run from a 12 volt/50 Amp-hour battery pack, and 300 Watt mains inverter, for up to four or five hours. In conjunction with the ability to work without a telecommunication link, this enables the CLTC to work beyond the 'wired world'. It can be used in remote locations, open air festivals or in the streets without any restriction.

The four client machine are installed as Gnu/Linux desktop systems. This provides a wide range of office and Internet applications (although multimedia performance is restricted

because of software restrictions). Originally every machine had been installed with the same Linux distribution. But as time has progressed the systems have been regularly re-installed as part of workshops, as well as for the trialling of different distributions for training use. So today the distribution used on client machines changes regularly.

### CLTC System Information

#### System specifications:

Laptops (x5) – Dell Latitude CPi / Pentium-III 266MHz / 128MB RAM / 4GB hard disk  
Network – Xircom Ethereal PCMCIA 100-BaseT cards (x5) / 3Com 100-BaseT hub / Cat-5 UTP cable (x5)  
Peripherals – HP Deskjet 340 printer + parallel cable / 8-way surge protected mains distribution socket

#### System costs:

'2<sup>nd</sup> user' laptop computers (5 @ £348 each) – £1,740  
'2<sup>nd</sup> user' network cards (5 @ £70 each) – £350  
'2<sup>nd</sup> user' network hub and new cabling – £130  
'2<sup>nd</sup> user' portable printer – £30  
Linux software (average price) – £100  
Carry case (tool chest) – £50

**Total cost – £2,400**



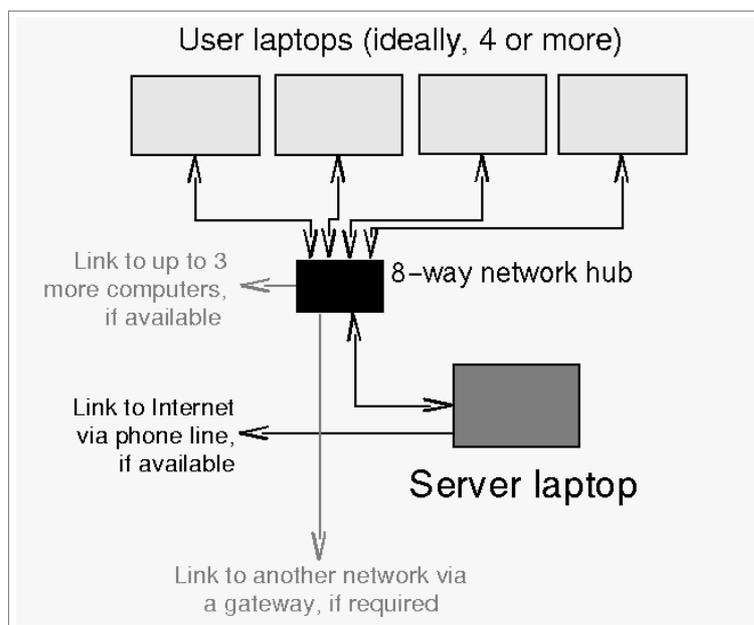
The server is installed with Red Hat Linux 7.1. This is a good server distribution, and is less demanding of system resources than later versions of Red Hat. The server is configured with the following services:

- ◆ **A web server** – Providing a web server makes it easy to train people in the use and development of web sites.
- ◆ **An email server** – Providing an email system enables the teaching of email use, secure email (digital signatures/encryption), or using email lists.
- ◆ **An FTP server** – FTP, or file transfer protocol, is used for moving files on-line, and is key in web site development, and so providing FTP allows users to practice web site development.
- ◆ **Telnet/remote login/SSH** – Providing 'telnet' and 'rlogin' on the server allows tuition on how to remotely log-in to and manipulate a server – essential for remotely running a server.
- ◆ **Network news server (Usenet newsgroups)** – Providing a news server allows people to practice using Usenet, perhaps using it as an additional communications channel.
- ◆ **Internet Relay Chat (IRC) Server** – Providing an IRC server allows people to practice logging in and using IRC to initiate multi-user online conferences, irrespective of geographical boundaries.
- ◆ **Network services** – The ability to look at the configuration of the network itself, and how different services on that network are configured, allows the teaching of the installation/development of computer networks.

This combination of a diverse client installation, and a wide variety of network services, means that the CLTC can do a wide range of tasks. It is able to be use for tuition from introductory level to advanced systems and network usage. This does make it rather difficult to briefly explain what the system is capable of.

### What next for the CLTC project?

As there is no other project like this, this first year has been a valuable exploration of the potential of the CLTC model. From its launch a little over the year ago the CLTC project has toured the UK giving workshops on the use of ICT and Gnu/Linux to community organisations and NGOs. It has even been to Jamaica to assist in the development of community computing projects there.



The next step is to develop the knowledge gained over the past year to improve the project. This has led to some reorganisation over the past few months. The first major step has been to spin-off a new project called 'Salvage Server'. This will take-over the hardware and system development side of the CLTC project, on desktops as well as laptops.



The main aim of the Salvage Server Project will be to concentrate on developing trash-tech. solutions to community computing/ICT needs. Re-moving hardware and systems issues from CLTC leaves space to concentrate solely on ICT/Linux training, and the development of training in the use of application. Over the next year the aim will be to improve and extend the current information on the use of applications created for the CLTC, and to design specific workshop packages that can be provided for use with the CLTC.

The Community-Linux Training Centre Project has been developed by the Free Range Network to promote the use of Gnu/Linux as a low-cost training and education resource for community and grass roots campaigning organisations. This report has been produced to support the work of the project, and is made freely available to encourage the objectives of the project.

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