The Community-Linux Training Centre

The key players –

The Free Range Network:

An informal network of independent grassroots activists who work collectively to develop training and workshops to support community campaigns.

Paul Mobbs:

Designer of the CLTC system.

Formerly an environmental consultant working for community organisations in the UK, now working mainly on issues relating to grassroots virtual networking, access to technology and training. Last real job (1980s) was in the engineering industry.

Background –

Origins of the project:

- A need for a computer training platform within the Free Range Network.
- Experience of using existing (1996) models of ICT training within LEA community education environment.
- Need to extend virtual networks of local activists to support activities outside of mainstream campaign groups.

Timeline:

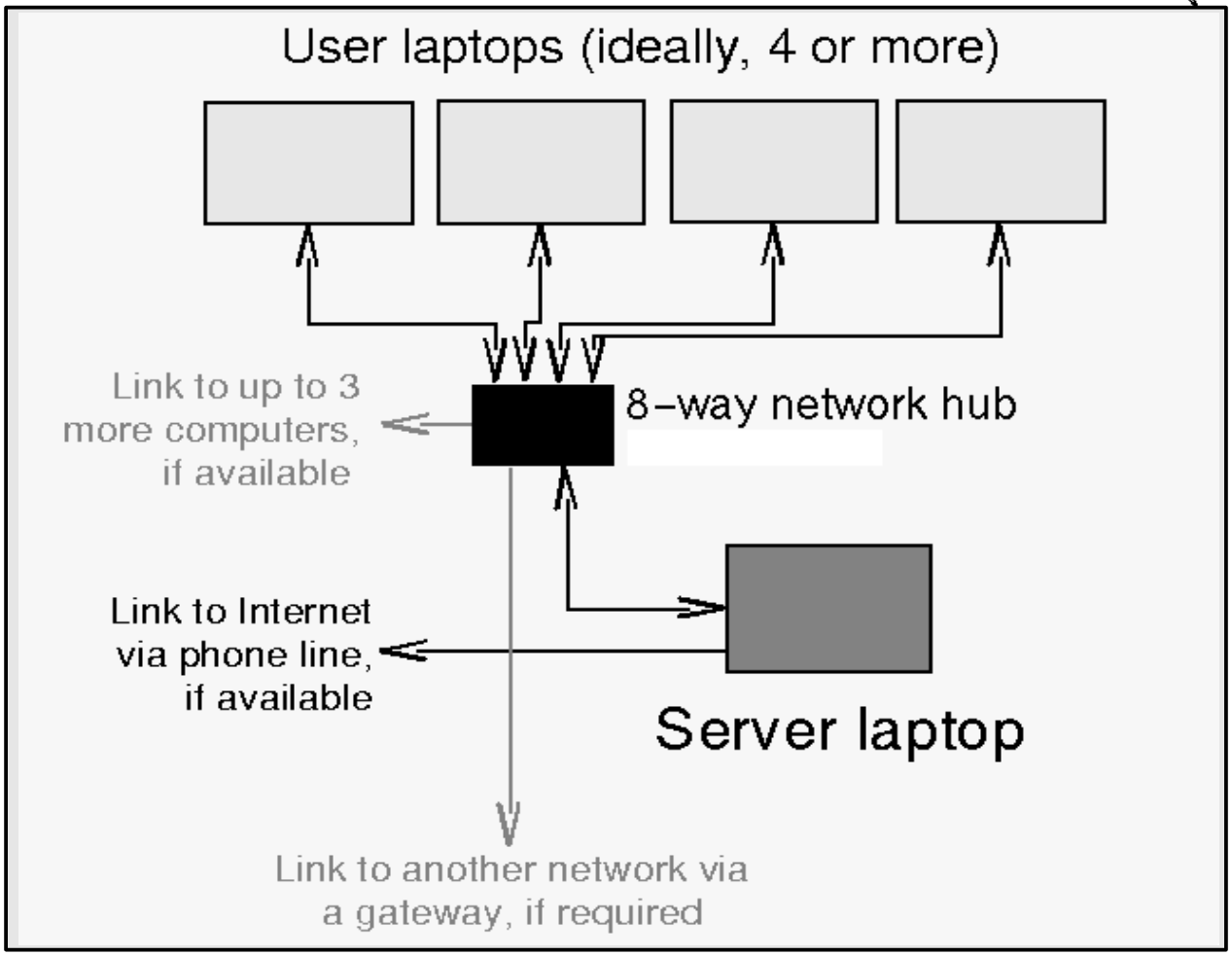
- 1997 – First Windows-based plan. Total cost £10,000-£12,000. Repeated funding applications 1997 to 2000 failed.
- 2000/1 – Redesigned as a Linux-based system. Cost £5,000. Still no funding forthcoming.
- 2002 – Traditional funding sources abandoned – CLTC gets built! Total cost - £2,400.

Design objectives –

- Portability, defined in the terms that the equipment should fit into a single large rucksack and be portable on public transport (total volume no more than 75 litres, total weight no more than 30kg).
- Dispense with the need for an Internet connection, enabling unrestricted portability, by running the equivalent network services from a local server.
- Reduce the need for equipment by having one portable networked printer, and, if a phone or other network connection is available, running the connection from the server on the same line.
- Provide access to the server/network, and facilities for each user to work, by plugging four or more laptops into the network
- Minimum practical equipment specification.
- Potential for powering the system beyond mains electricity for 6 to 8 hours

System layout –

- Five laptops - one server and four clients (most terminals within restrictions of weight and volume). All P-II 266MHz, 4GB H/D, 128MB RAM.
- A fast 3Com 100 Base-T Ethernet hub to maximise the speed of the client systems, five UTP-5 (100 Base-T) Ethernet cables, an HP Deskjet-340 printer and a parallel printer cable.
- Use identical laptops, rather than having a more powerful server, to provide system redundancy in the case of damage/failure.



- Using combined network cards and modems in each laptop so that, if required, the whole system could be split up to provide four independently usable laptop systems.
- All equipment is '2nd user'/recycled/repaired and is capable of being powered by battery.

Transport –

Wheelie chest

Tool chest

Services –

- Web server – for giving experience of use and making web sites
- Email server – for giving experience of email use.
- FTP server – for demonstrating file transfer/uploading.
- Telnet/SSH/rlogin servers – for demonstrating remote access.
- Network news server – for demonstrating Usenet/newsgroups.
- Chat/IRC server – for demonstrating real-time communication.
- Network services – to give experience of using networked PCs, shared printer, disk shares, etc.

What can it do –

Problem of definition!

It's difficult to describe what can be achieved with the CLTC because it is only limited by the Linux operating system, and the ingenuity of the user.

Examples:

- Basic computer use - turning on, and using the graphical interface.
- Office-based tasks, such as word processing, spreadsheets and databases.
- Computer-based graphic design.
- Using email and the Internet for communications, campaigning and research.
- Computer and information security, including protecting data, secure communications, backing-up data and maintaining computers.
- Basic computer programming, especially the use if scripting languages to simplify and enhance people's use of computers.
- Developing and maintaining web sites to assist communications and campaigns.
- Setting up and using computer networks to assist the work of a small offices.
- Practising online networking and campaigning using various services such as email, newsgroups, the web and chat servers.
- More complex server configuration and maintenance for those wanting to provide community-based Internet services.
- Installing and use of Linux systems/networks.
- The development of computers and computer facilities to solve community needs.

Replication –

All CLTC Documentation is 'open'.

Available via the Free Range Activism Web site:

- Project background documentation.
- System development/replication documentation.
- Example configuration files for Linux server.
- Basic training materials (under development).
- New 'salvage server' project, seeking to develop simple Linux servers to support community-based activities.

Location: **http://www.fraw.org.uk/cltc/**

Replication –

The Container Project, Palmer's Cross, Jamaica

The Container Project uses a desktop PC configured almost identically to the CLTC's server, providing a network for 14 PCs (a mixed collection of Windows, Linux and Mac OS's) in an old ISO container.

CLTC in use –

UNESCO World Press Freedom Day,
Kingston, Jamaica, May '03

CLTC Launch, Llandeilo
Civic Hall, July 2002.

Tech 2,
Grizedale Forest
Visitors Centre,
Sep. '02

Folly Gallery,
Lancaster,
August '02

"Grow Your Own
Media Lab",
Birmingham,
December '02

The 'Free Range' Community-Linux Training Centre Project

http://www.fraw.org.uk/cltc/ fraw@gn.apc.org

Project designer: Paul Mobbs

Peer review: Tim Shaw
Neil Jones

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the electrohippie collective
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GreenNet