



# ICT Hub Case Study

## The Basement



## ICT Hub Case Study – The Basement

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### *Who are The Basement?*

The Basement is a social centre and café in the trendy Northern Quarter area of Manchester. The Basement also holds a small library bookshop, internet access suite, art exhibition space and meeting facilities. It is a not-for-profit organisation run entirely by volunteers and is the only space of its kind in Manchester. Work is divided among work-groups and decisions are taken by consensus.

Typically, the Basement is a meeting point for progressive grass-roots organisations in the local area. A place where they can talk about politics, economics, philosophy or what they had for lunch.

The IT facilities provided by the Basement are free-of-charge although users can donate pocket change to the support fund.

### *How does The Basement use Open Source Software?*

Upon discovering the Basement, we found they were already using Open Source; a previous regular had implemented a system running on Ubuntu Linux, a popular Linux distribution.

The network had been left in somewhat of a state; desktop hardware was unable to cope with users' needs and nobody at the Basement had the required skills and knowledge to streamline the system.

An IT 'group' was formed to look at the problem of the IT suite. After meetings at the Basement and on Internet Relay Chat (IRC), it was concluded that with such a limited budget, a thin-client solution would be worth looking at.

Thin-clients are low-performance, often disk-less clients to a fast server. A very minimal operating system kernel is loaded by a thin-client upon booting and all subsequent processing is handled by the server. The advantage of a thin-client infrastructure is that it meant the Basement could largely re-use their existing kit without worrying about the performance of the desktop machines – all the processing would be done by the newly purchased budget server. As storage exists on only one machine in such an architecture, there is only one disk to backup and all management of services and user accounts etc. can be done on the single server.

The software used to implement the thin-client solution was the Linux Terminal Server Project (LTSP). LTSP is relatively simple to set up and there are many 'how to' documents on the internet which can be used as a guide.

The IT group was helped to set up an LTSP-based system over a period of two days. Regular visits thereafter made sure the system was still working and resolved any teething problems.

Effective communications between the IT group members, with other working groups and with the core Basement decision-makers was also an issue. This was resolved by providing a mailing-list, a wiki and an IRC chat-room. Providing various methods of communication proved to be vital because of the diverse working times of the parties involved and their often being geographically dispersed.

### *What was Learnt?*

From the outset it was apparent that the existing IT system was totally undocumented and that this was a big problem. The only reasonable solution was to overhaul the whole thing and make sure the new system was thoroughly documented.

In purely practical terms, the IT group learnt how to implement an LTSP-based solution. This has provided them with a high-performance IT suite with little extra cost that they completely control themselves. There has since been some updates and changes to the system but these have been to add functionality in most cases rather than fixing problems. Most of this work can be carried out remotely by members of the IT group.

One of the major lessons was that using a thin-client environment gave most of the users pretty much everything they had before but with better performance and a more stable system. We learnt pretty quickly however that users looking for a rich multimedia experience may not be able to continue to use the full suite of applications/ websites they were used to. Removable devices and sound support in an LTSP environment is still in the experimental stage but because LTSP is a fast-moving and well used piece of software we expect these features to be added at some point in the future. The price of waiting is that 'power users' need to bring laptops with them to make use of advanced multimedia

applications and similar.

The average user who simply required a web browser and email were easily catered for and system performance was more than acceptable. In fact, some users remarked that “these big old boxes” were performing far better than their fairly-new home/ work PC's. Another user remarked...”oh my, it's like a new computer!”

### *How to find out more*

#### **Contact the Basement**

<http://thebasement.clearerchannel.org/drupal/>

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#### **ICT Hub project**

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