



The Incubator Club

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1. Overview

Members of the Incubator Club are organisations which are deploying or considering deploying Open Source Software. It is aimed at those who wish to:

- ensure freedom of choice and control of the technology they deploy;
- eliminate constant software churn by vendors' withdrawal of support;
- deploy secure, virus-resistant, systems;
- spend more of their IT resources meeting their business needs;
- ensure the accountability of users with secure user single sign on;

The use of Open Source Software for the IT infrastructure and for servers is a given. However, for most, the use of Open Source for desktop computing provides by far the greatest benefits. It also presents the biggest challenges.

By subscribing you will:

- work with other leading organisations that are deploying Open Source Systems;
- understand how to provide desktop computing that is independent of the underlying operating system;
- deploy an Open Source architecture that provides the next generation of secure desktop computing;
- evaluate the different approaches to running Microsoft-based applications from a Linux desktop;
- deploy a secure and manageable desktop architecture;
- reduce cost of ownership to below 25% of that of existing Microsoft based systems;
- steer the course of the development of the desktop to meet the needs of your organisations;
- act as a group getting software vendors to ensure interoperability with Open Source;
- share experiences with like minded IT professionals;
- build up practical experience of deploying and managing Linux desktop computers prior to roll-outs;
- pool resources to get additional UK Government and European Union funding.

The Incubator Club is for those who want to have the freedom of choice to use the most appropriate technology for their IT systems. Its purpose is to stop unwanted vendor lock-in and being forced to upgrade perfectly good working systems because vendors make their software obsolete.

A condition of subscription to the Incubator Club is confidentiality.

Organisations that are migrating to Open Source Software are targeted by the proprietary vendors and also by the press. These vendors are used to selling solutions, that are not in the best interests of your organisation, to senior management.

Details of organisations that subscribe to the Incubator club will be kept confidential. The Incubator Club is there to help its subscribers make the choice that is right for them without any vendor sales pressure.

2. The Business Benefits of Open Source

The Internet depends exclusively on Open Standards which, in the main, have been implemented using Open Source. Using Open Source for the IT infrastructure, networking protocols, networking servers, DNS, DHCP, etc. should be the norm for all. Linux on the latest 64 bit commercial off the shelf hardware enables server consolidation and the replacement of proprietary servers and operating systems. The benefits are large savings that can be achieved.

The use of Open Source Software (OSS) is, for most organisations, the most effective way to reduce costs and improve system reliability and security. The cost savings are because:

- Linux rarely fails – mean time between failures is measured in months and often years;
- OSS is secure by design – it is being used by the USA Government for secure computing;
- Linux is virus resistant by design;
- OSS is designed to interwork – published interfaces and no hidden code;
- no forced change – OSS is written to ensure backwards compatibility;
- low cost or free licence fees;
- OSS is free from vendor lock in and vendor churn;
- Linux runs on the latest powerful, low cost, 64 bit commercial off the shelf processors;
- Linux runs well on low performance PCs that do not need fans for cooling.

These benefits result in a significantly reduced cost of IT. Using Linux on the desktop also gives a marked improvement in users' productivity. Users fear of computing goes because Linux works reliably and there are no threats from viruses.

Organisations need independent, high quality advice on how to make the transition to OSS. Relying on vendors to provide strategic advice is not the way forward. By ensuring freedom of choice **netproject** clients have saved millions from their IT budgets both by deploying Open Source technology and by being in a position to negotiate with their existing software vendors for massive reductions in licence costs.

netproject is a leading consultancy with an outstanding track record in computing and Open Source. **netproject** is working with organisations that are migrating their systems to OSS. Clients include UK Central and Local Government, the European Commission, financial institutions, multi-national companies, hospitals, high street retailers, etc. **netproject** runs regular briefings and workshops for all its clients where presentations are given by leading figures involved in the development of OSS and where **netproject** clients network and share experiences.

If you want to enjoy the benefits that Open Source Software gives – why not talk to us about how we could work together developing cost effective systems, that use the best of breed of both proprietary and Open Source software, to meet the needs of your organisation.

3. Migrating to Open Source Software

Open Source on the desktop offers by far the largest savings for the majority of organisations. However the change must be undertaken in a series of well planned stages.

Guidelines that should be considered are:

- before starting – have a clear understanding of the reasons for migrating;
- ensure that there is active support for the change from IT staff and users;
- ensure that there is a champion for change – the higher up the organisation the better;
- build up expertise and relationships with the OSS movement;
- start with non-critical systems;
- ensure that each step in the migration is manageable;
- start by building pilots and gaining hands-on practical experience.

Migrating your IT systems provides an opportunity for them to be re-engineered to meet the new demands placed on them. Questions that need to be addressed include:

- how to ensure seamless interoperability of systems?
- how to support mobile users?
- how to securely identify users? How to best use smart cards / tokens?
- how to build systems that are manageable?

Above all how to ensure security is designed in from the start and not tacked on as an afterthought?

netproject's experience helping organisations migrate to Open Source can be seen from the popularity of the Migration Guidelines that were developed by **netproject** in association with the European Commission and most European member states. Over 100,000 copies of these guidelines were downloaded in the first two weeks after publication. They have also been translated into French, Spanish and now into Russian.

4. Where to use OSS

4.1. The network infrastructure

The success of the Internet is because of the exclusive use of published Open Standards. These standards have been implemented in OSS. The use of TCP/IP and Open Source for networking servers should be considered by all. The alternative to open protocols is the creeping growth in the use of proprietary networking technology which will result in vendor lock-in and make migration increasingly more difficult.

4.2. Servers

Linux on industry standard 32 bit and 64 bit computers is growing rapidly and is replacing proprietary Unix systems. Consolidating servers onto fewer high performance Linux computers can give large cost savings.

4.3. File and Print Servers

For many organisations the first place OSS is deployed is to provide file and print services for networks of Microsoft Windows PCs. SAMBA running on Linux provides very cost effective and reliable file and print services. In addition to cost savings organisations are replacing Microsoft file and print servers with Linux and SAMBA to eliminate the security threat from viruses.

4.4. Relational Data Bases

All the main proprietary relational data bases have been ported to run on Linux. In addition there are several OSS relational data bases, including MySQL and Postgress, which could be considered.

4.5. The Desktop

The desktop provides the biggest potential for cost savings in most medium to large organisations. Putting Linux onto the desktop can cut costs by 75%. For more information see the case study of Beaumont Hospital, Dublin, at <http://www.netproject.com/online.html>

Possibly the most important change is to consider desktop computers as corporate workstations rather than personal computers. Authorised users should be able to log on and work from any workstation.

4.5.1. Thin client desktop

Thin client is where all applications run on a back end server with the display output to the desktop. Thin client is a return to mainframe computing. Thin client computing has evolved because of the problems of managing PCs that run Microsoft Windows. The benefits of thin client computing are significantly improved system management, support for mobile users / hot desking. These must be set against ensuring the performance of the server is adequate under peak loading and network latency.

4.5.2. Open Source desktop applications

For most mainstream desktop applications there is a perfectly good OSS alternative that runs on Linux, Microsoft Windows and Apple Macs. By deploying these applications large cost savings can be made. Also the freedom exists to change desktop operating systems with the minimum of disruption. Examples of such alternatives include: Open Office for Microsoft Office; Mozilla web browser for Internet Explorer; Evolution for Outlook Express; The Gimp for Adobe. There are many others.

The benefits of a Linux desktop have encouraged a growing number of organisations to take a hybrid approach to desktop computing, using a Linux desktop with legacy desktop applications run on the server. Where appropriate, Microsoft Windows applications are replaced with OSS equivalents and run on the Linux desktop. By minimising the loading on the server and eliminating network latency the responsiveness of the system is improved

4.5.3. The Secure Open Desktop Architecture

netproject has developed and deployed systems based on its Secure Open Desktop Architecture (SODA) to provide secure, manageable and scalable computing. SODA gives the performance benefits of 'fat client' computing with all the system management benefits of 'thin client computing.'

A centralised LDAP server is used to authenticate users when they log onto SODA workstations. Smart cards can be used to ensure the identification of the users. All user files are held on central servers as are user emails. This approach enables users to log on from any workstation on the network. SODA workstations are managed remotely. Software is downloaded from a software server when the workstations are first connected to the network. Subsequent software updates are done automatically. When there is a hardware problem with a SODA workstation, because there is no data on the computer, it can simply be thrown away.

For more information read the **netproject** Secure Open Desktop (SODA) document.

5. netproject professional services

5.1. System Development

netproject consultants have extensive expertise designing and building IT systems, using best of breed of both proprietary and OSS. Systems built by netproject have outstanding reputations for being highly reliable and secure. netproject has extensive contacts with the Open Source community. Where clients require specific consultancy advice or skills netproject will use these contacts to complement netproject's skills.

5.2. Migration Guidelines

The migration to OSS needs to be well planned and undertaken in a series of well planned steps. Large scale 'big bang' projects must be avoided – they almost always fail. netproject has produced Open Source Migration Guidelines for the European Commission. These can be found on our web site www.netproject.com

5.3. Cost of Ownership

Developing a detailed cost of ownership model is a difficult and time consuming task. netproject has developed cost of ownership models that enable the relative cost differences of OSS to be determined. These are designed to show the savings, or otherwise, of migrating to OSS. These models, together with consultancy advice, are available to netproject clients.

5.4. Pilot Projects

Those that are considering the migration to OSS should deploy small scale pilot projects at an early stage. These enable practical experience to be gained using OSS and can also be used to demonstrate the quality of OSS. They enable subsequent migration plans to be based on practical experience. netproject has deployed pilot systems in a number of organisations that are migrating their IT systems to OSS.

5.5. netproject recent and current projects

For the UK Office of the e-Envoy:

the design of a PKI using Open Source Software for use in interoperability trials.

For the UK Police Information Technology Organisation:

the design of a secure desktop architecture based on Open Source technology.

For the European Commission:

the development of Open Source Migration Guidelines and the deployment of Linux desktop systems in Mecklenberg-Vorpommern.

For Newham Borough Council:

defined a strategy to provide sustainable desktop computing. Deployed Linux desktop pilots.

6. Incubator Club – Benefits of Membership

netproject consultants will work with your IT staff deploying pilot Open Source desktop systems in your IT department. The purpose of these pilot systems is to ensure that your IT staff has a good understanding of the use of Linux on the desktop before deploying these systems to end users.

Advice will be provided on how the pilots should integrate into the existing IT infrastructure, including the use of existing directory services to enable user log on.

Advice will be given on how to run all existing applications from a Linux desktop.

netproject will provide a telephone hotline support service for technical staff.

netproject will run seminars and workshops which deal with the issues of building distributed systems. Typically topics covered will include the design and administration of networks of directory services, the design of DNS and also subjects that subscribers consider important. These seminars give the opportunity for subscribers to share experiences.

netproject has very close working relationships with the Open Source community. Where a client requires specialist skills **netproject** will identify the appropriate person with the required skills to undertake consultancy work for the client.

Where several subscribers identify a common issue where software needs to be developed or modified. **netproject** will put together a project that is jointly funded for the development of the software.

To discuss how membership of **netproject**'s Incubator Club can help your organisation – why not call:

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