

Guidelines

F o r I T M a n a g e m e n t



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Open Source – the reality in business

Principia 

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Principia, National Computing Centre
Oxford House, Oxford Road
Manchester M1 7ED

NCC Guidelines

The National Computing Centre
Oxford House
Oxford Road
Manchester
M1 7ED

Website: www.ncc.co.uk

Tel: 0161 242 2121
Fax: 0161 242 2499

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Dave Fisher – provided his insights into the future perspective for open source technologies. Dave is Marketing Director of the open source consultancy and training company GBdirect Limited. He writes for many publications on a range of open source topics and is a columnist for LinuxUser magazine.

1. Open source in business

2004 was a year in which open source technologies established themselves as a viable alternative within the corporate market place. Open source gained increasing credibility particularly, the Linux operating system, whilst open source on the desktop still has some work to do. These Guidelines provide a useful overview of where the gains have been achieved and where the challenges lie if open source technologies are to build upon these successes throughout 2005.

The second part of these Guidelines focus on three real life implementations of open source. Whilst each company featured had very different business drivers towards a shift in technology platform it is insightful to see the key benefits emerge, delivering real business value, improved capacity and capability, in turn also seeing clear and significant cost savings to the business.

1.1 Open source – steady growth...

The pattern of steady OS growth in all markets was confirmed in 2004; but it remains the case that OS still hasn't caught the imagination of all IT managers, Directors or CIOs. As a consequence there will be no seismic shift in 2005, moreover OSS applications and operating systems may represent a viable alternative and have certainly established as an option for the corporate desktop. With core packages at, or approaching, maturity and evident interest from buyers, there is now ample commercial incentive for the support infrastructure to begin catching up with the technology.

The money spent on OSS products and services in 2004 continued to accelerate; the range of active projects increased; new software categories and industrial sectors were pioneered; established products continued to mature and extend; leading products achieved marked improvements in usability and support; new converts were made among ISVs and end-users; even a steady increase in the number of abandoned and merged projects was a positive sign. There is no indication that any of these trends will peak before 2007.

Although there were no startling setbacks in 2004, there were some which served to reveal real commercial weaknesses that are likely to continue into 2005. The withdrawal of Sharp's technically impressive Zaurus PDA from the UK reflected Linux's failure to counter the questionable (but popular) belief that WinCE has intrinsically superior desktop integration. Without sufficient backing from other vendors, something similar may befall Motorola's Linux smart phones in 2005. The abandonment of Newham's Linux desktop pilot demonstrated the scale of discounts that a serious defection threat can extract from Microsoft. Given the impossible cost of buying-off every potential defector, the demise of Turku's OpenOffice migration is arguably more significant. There, staff resistance was the primary obstacle.

Finally, IT centralisation and longer-term contracts in UK central government (especially the NHS), combined to intensify Microsoft lock-in and to squeeze out the small innovators who are most likely to champion open source. Public sector open source experienced few direct losses in 2004, but significant barriers to its future growth were raised.

'IT centralisation and longer-term contracts in UK central government (especially the NHS), combined to intensify Microsoft lock-in and to squeeze out the small innovators who are most likely to champion open source'

Together, these setbacks remind us of the overwhelming challenge for open source migration: that its benefits have to be very large, very timely, and well-understood to offset transitional costs, inertia, fear uncertainty and doubt and anti-competitive pricing.

The open source movement's overall exposure to tangible risk remained roughly static throughout most of 2004, with intellectual property law still the primary concern. However, the fear that open source development could be constrained by well-financed (if legally dubious) patent claims grew in the last quarter. Microsoft's claim to patents over 130 internet and interoperability protocols raised the temperature, following on from draft EU legislation to recognise software patents, and a significant out-of-court patent settlement between Sun and Kodak. This bad news was partially offset by supportive declarations from IBM, Novell and the W3C over patents, and by favourable developments in court cases brought by SCO and Eolas. Nothing happened to challenge the common assumption that open source developers will be able to quickly work around intellectual property encumbrances, and that it is quite unlikely that end-users will have to pay for any proven infringement.

'The key permissive factor will be dramatic improvements in the capabilities and usability of OSS desktop applications during 2004. Three packages exemplify this trend and provide the core around which many OSS desktop strategies will be built'

1.2 Forecast developments for 2005

The Linux desktop will not be the dominating concern for open source developers in 2005, nor even the most important element in OSS desktop development. The direction of greater resources towards it will, however, put clear blue water between Linux's market share and the third placed Macintosh. Expect to see Linux on up to five per cent of all desktops by the end of the year (from an estimated three per cent in 2004, IDC). Defections will come largely from Windows.

Lower TCO will be the obvious driver for corporate adoption. The key permissive factor will be dramatic improvements in the capabilities and usability of OSS desktop applications during 2004. Three packages exemplify this trend and provide the core around which many OSS desktop strategies will be built: the OpenOffice suite; the Mozilla Foundation's web application suite; and the Gnome desktop environment.

Together with an operating system, these three packages provide most of the day-to-day requirements of non-specialist knowledge workers. These workers are not the current priority for Linux vendors, but they are being prioritised by others in the open source community, and especially by those playing the long game. For the latter group, Windows versions of OpenOffice and the Mozilla applications play a crucial role in enabling people to continue using files created with tools like MS Office, while progressively freeing the data itself from dependency on Microsoft-only systems. Getting such data into international standard formats (XML, XHTML, etc) significantly increases the feasibility of complete platform migration by dramatically reducing transition costs. This approach, rather than sales of Linux systems, will be the defining feature of the OSS desktop in 2005.

1.2.1 OpenOffice

OpenOffice 2.0. will go beyond currently adequate levels of MS Office compatibility and desktop integration, while further improving usability, extensibility and performance. Many remaining problems with conversion to and from Microsoft formats will be eliminated, including factors associated with Windows OLE, authentication and print integration. Help from Microsoft should enable Sun to take things further later on in the year. OpenOffice will get a built-in database and enhance the Access-like interface it currently provides to a range of SQL, LDAP and XML databases. Good web integration (thanks to the native XML document format) will improve, with all the relevant OpenOffice components exporting to strict XHTML and the native format becoming an official OASIS/ISO standard. OpenOffice will be trialled in up to 15 per cent of UK corporate by the end of 2005 (matching the US figure of 14.3 per cent for 2004, Forrester), but there will only be a handful of company-wide deployments. Public sector organisations, and especially education, will install the largest number of OpenOffice suites, but mostly in autonomous local units. Internal inertia and active resistance from powerful vested interests will block large scale deployment in centralised and regionalised government IT.

1.2.2 Web predictions

On the web front, Mesilla's Firebox browser should take 15 per cent of the total market (from 6 per cent in October 2004, Reuters) by the end of 2005, and over 50 per cent among technically-oriented users (from 19 per cent in October 2004, Dent UK). With its many extensions, Firebox outshines its competitors on just about all adoption criteria bar one: the execution of Microsoft-only code. Many corporate Windows users, suffering the escalating cost of IE viruses, spy ware, and cracks will consider this an enhancement rather than a drawback. Features and security are not the only compelling drivers for Firebox. IE's deficient implementation of cascading style sheets (CSS) has long been an obstacle to accessible, visually appealing, and usable site design. Once the majority of web developers are using Firebox W3C standard CSS features, which IE doesn't implement, will appear on many sites. The risks are low, since Microsoft must implement these features in the next IE. Firebox compete directly with Microsoft's attempt to corner web programming through XAML and .Net.

Mesilla's Thunderbird will rise from single figures to share most of the market for Unix/Linux-based mail clients with Evolution (Novell's Outlook clone). Its cross-platform capability will make it a favourite for those pursuing a stepped transition away from Microsoft dependency. Its limited integration with the rest of the Windows infrastructure will cast a revealing light upon the lock-in between Outlook and Exchange. When Outlook itself, plus Thunderbird, Sunbird (Mesilla's

calendar/scheduling client) and any web browser can get Exchange-like services from a choice of low-cost Linux servers, Outlook addiction will no longer be an obstacle to migration.

1.2.3 The desktop

The Gnome 2.8 desktop now surpasses the stock Windows desktop for ease of use and is on target to match MacOS X standards by early 2006. The few Gnome applications which are not yet feature-complete should reach that goal in 2005. The recent trickle of defections from KDE is likely to become a flood in 2005, leaving Gnome as the primary Linux/Unix desktop. This consolidation, together with the elegant GTK toolset, Novell's Mono (running and developing .Net applications on Linux) and the Eclipse IDE should produce a rapid increase in the number of developers and ISVs targeting Gnome.

The fastest growth in pure Linux desktops will be in limited-use and kiosk-like environments, e.g. call centres, ticketing, customer service points, and database-driven applications that don't require complex interaction with a whole panoply of other desktop software. The negligible transition costs, alongside the potential for combined savings of over 50 per cent on hardware, licensing, security and support, make the Linux choice a financial no-brainer in this segment. Novell/SuSE will be the most aggressive player, having already assembled a strong toolset and service capability. Novell's strategic partner, IBM, has greater capacity, but is not likely to shift its centre of gravity towards the Linux desktop until later in the year. Red Hat and HP offer Linux desktop solutions and support, but have not yet made it their highest priority. Sunk costs and contractual incentives will tie most of the big consulting/service conglomerates to Windows, but growing experience with Windows-based OSS and the competitive edge provided by Linux costs will begin to tempt the fleetest of foot.

As with OpenOffice, the biggest market for general-purpose Linux desktops will be among the more autonomous sections of the public sector, particularly education. Take-up will be on a smaller scale than that for Windows-based OSS applications, or specialist Linux desktops, but will yield the greatest unit savings by focusing on low cost thin-clients. Many cash-strapped schools will follow Orwell High School in converting end-of-life Windows PCs into diskless Linux terminals, yielding a site-wide upgrade and a reduction in support requirements for the cost of one or two servers. Others will prefer new Linux terminals with extended multimedia for the princely sum of £200 per unit.

These savings have been around for years, but have been held back by ignorance, overestimated support requirements, and a distinct lack of interest from hardware-focused education support companies. Expect a change in 2005. Word of mouth has reached critical mass, smaller consultancies have skilled-up to fill the support gap and developers have begun to package easily configurable all-in-one solutions.

1.2.4 Skills issues

The picture of skills, packaging and commercial support catching up with the pace of software development will be replicated across commercial open source in 2005. Training companies will add end-user courses to their existing curricula for open source developers and administrators, starting with ECDL-style courses for OpenOffice and StarOffice. Small consultancies will combine to fill the gaps left by the support programmes of Linux distributors and the service giants. Despite evident technical capabilities and plausible business infrastructure, they will fail to catch the eye of big corporate buyers. They will, however, provide a good proportion of the support and impetus behind the small-to-medium sized deployments that will characterise the open source desktop in 2005.

1.2.5 Challenging misconceptions

Arguably, the most significant long-term effect of next year's dominating theme (the full emergence of Windows-based OSS desktop strategies) will be its challenge to popular misconceptions about open source. The widespread conflation of OSS with Linux, and Linux with Red Hat, exerts a serious drag on open source adoption. It exaggerates the perceived cost of adoption by suggesting the necessity of platform migration, and Red Hat Enterprise Linux (RHEL) level support costs. It also provides the Windows-based service giants (who dominate corporate and public sector IT) with no incentive to support and every incentive to discourage adoption.

'The Gnome 2.8 desktop now surpasses the stock Windows desktop for ease of use and is on target to match MacOS X standards by early 2006.'

The next part of these Guidelines serve to illustrate what has been happening across all sectors in the UK during 2004 with a steady shift to open source technologies. Through OpenAdvantage we have developed three case studies of OS adoptions:

Response Maintenance & Building Services Ltd	A small building and maintenance business.
Morrison Edwards Insurance Services Ltd	A well-established Midlands based Brokerage, Morrison Edwards, had always been successful offering general types of Insurance.
Leisure Music	Supplier of musical instruments, amplifiers, sheet music and accessories

2. Response Maintenance & Building Services Ltd

Andy Cornaby, Managing Director runs Response Maintenance & Building Services Ltd, the company has won multiple awards for its IT solution including the DTI's Ecommerce awards 2003... but it was not always this way.

The business realised that the building maintenance industry was suffering from an image problem – characterised by ‘cowboy’ tradesman with poor levels of service and poor quality workmanship. At the same time the industry was also becoming more competitive and suffering from falling profits. Andy Cornaby’s vision was to change this and provide a higher quality service with first class employees, whilst of course running an efficient, profitable business. He saw IT as a key enabler and an essential part of being able to deliver his vision but unfortunately IT did not always support the dream.

The first solution implemented at Response Maintenance in 1996 appeared in the back office, where work sheets and whiteboards were common place and information from the on site field service engineers was manually entered onto the system. This paper based system had some obvious drawbacks such as duplication of the data capture, processing and the frustration of waiting for tradesman to get their paperwork in on time. In addition, the IT systems far from helping the business became an inhibitor, having no internal IT resources the MD was in a ‘do it yourself’ position or had to rely on his suppliers. As well as having to regularly reboot the Windows server and the workstations due to system crashes he was in the unenviable position of paying £48,000 per year in maintenance charges. There was a realisation that changes needed to be made, and also that technology remained a key enabler in bring about business change.

Andy Cornaby comments ‘the challenge I had as Managing Director was controlling the business and being in control. It is my job to make sure that the clients are happy and that they are getting the levels of service they require, but this must also be cost effective. Now I can do this at the push of a button. I can see how each individual tradesman is performing, what his turnover is , what profit he is making, what purchases he has made, I can do this for the managers and office staff and see what estimates they are doing. My business is now visible to me!’

2.1 The technology partnership

Response Maintenance’s technology partner in bringing about this change was Impact Applications based in Wolverhampton. Andy approached Impact in 2001 with a vision for his business and they turned this into reality, delivering a ‘zero client’ application, where the on-site tradesman access the system via a standard web browser on a portable wireless device. Using hand held devices from Symbol Technologies and a mobile phone connection from Orange the field service engineer can log all the details of the job as it happens and this information can be instantly accessed at the head office. In addition an extranet facility also allows the customer to access the information, providing reassurance that the work is progressing as planned and also reducing the all too common ‘chasing’ activities that customers do when they need to find out what is happening.

With no specialised software needed on the client the ‘kitting out’ for new tradesman is straight forward evolving mostly around training, and there is no synchronisation needed between the client and the server. If one of the mobile devices is lost or damaged Response Maintenance can be sure that no sensitive data is lost with it.

‘...the right tool must be selected for a job and how in some cases, there simply is not a suitable mechanism at the moment’

2.2 The business benefits

This integrated paperless system has delivered huge benefit to Response Maintenance. The initial planned cost saving was in the order of £90,000 per year but they have far exceeded this. The reduction in waste materials alone has shown a saving of £120,000 in one year. The amount of administration needed has been reduced by 50% and the response times improved by 50%. Andy Cornaby's goals were to lower the cost, increase the flexibility and get control of the business. This has undoubtedly been achieved and Andy Cornaby highlights one particular anecdote.

'Tradesmen traditionally are known to do a bit of work of their own on their days off. This is not normally a problem, however there can be a tendency to "borrow" materials from the company van. Rather than trying to put a stop to these generally accepted practices Response Maintenance has a novel solution. Now there is full visibility of stock, including exactly what materials are in each van at any point in time, Response Maintenance can occasionally spring a van stock take with a weeks notice. The weeks notice is obviously working well as to date each stock take has shown exactly the right amount of materials accounted for'.

The increased visibility of the business had another unexpected but very valuable consequence; the MD is now able to accurately view the amount of profit from each job. Initially Response Maintenance discovered that a greater than expected proportion of work was not profitable at all. Cutting this work out immediately reduced the turnover of the business, which is, on the face of it, not always a good thing, but as this has now been replaced with new contracts that are profitable the business is in a much healthier position.

2.3 So where is the open source?

Too often people focus on the technology and forget to solve the business problem that they have. In this case Response Maintenance has got the horse before the cart and has a very successful IT solution delivering real benefit to their business.

They purchased a solution based on business needs – and they were very clear about the requirements of their business. In fact they approached their technology partner with the problem and together they designed the solution. The technology supplied was in truth not important to Response Maintenance; it was the fact that it delivers the business results that were of greater importance.

Impact designed the solution based around a standard web browser; and the key word is standard. For longevity and interoperability reasons the use of Open Standards and web standard server tools is vital. The solution uses an open source web server called LAMP (Linux, Apache, My SQL and PHP) an industry standard with 70% of all the worlds web servers being based on a LAMP architecture.¹

For Martin Taylor Managing Director of Impact Applications the use of open source software is one of the key elements to his business. The use of open source gives him no ongoing license fees, reduced development time, greater flexibility and greater interoperability. Martin says of open source 'It gives us competitive advantage but it does cost. We have to provide time for training and time to attend events, seminars and conferences. It is also important to give something back to the community and so we make sure we answer questions on the forums. The plus side to this is that we often get an overnight response to bugs that we have highlighted.'

With regards to setting up the business Martin Taylor says 'As a Wolverhampton University based incubator company we would have found it harder without using open source software, it would have been too costly buying development licenses for all the proprietary software needed.'

From the Response Maintenance perspective Andy Cornaby is now a convert.

2.4 The OpenAdvantage

The solution at Response Maintenance has been so successful that they have now partnered with Impact Applications to be able to deliver this to other companies under the brand 'Impact Response'. This in turn has lead to increased need for interoperability with other systems and in the case of one large building company the need to integrate with a legacy Oracle database system.

'They purchased a solution based on business needs – and they were very clear about the requirements of their business. In fact they approached their technology partner with the problem and together they designed the solution.'

¹ Source Netcraft's web server survey of over 50 million sites Aug 2004

Although Impact had the technical ability to undertake this investigation the amount of business that they had won meant that it would divert critical resources. Fortunate for Impact is their West Midlands location; they were able to call upon the help of OpenAdvantage. OpenAdvantage is the first vendor neutral open source support centre in the UK, funded by Advantage West Midlands to help boost the efficiency of businesses in the region by the use of open source software. The experts at OpenAdvantage were able to provide the expertise required to link to the legacy Oracle Database and ensure the continued success of Impact Response.

3. Morrison Edwards and Presence Systems Ltd

3.1 How much do you value your property?

Most individuals guard their wealth with great importance and most individual's greatest asset is their home. But what if you own more than one property and you rely on Agents to manage matters on your behalf? Property Managers and Estate Agents could have any number of properties in their portfolio for letting, each requiring varying levels of management. A fundamental requirement to alleviate the worst case scenario is Insurance. Traditional methods of setting up and managing the insurance policies incur ineffective use of an Agents time.

A Midlands based Insurance Brokerage, Morrison Edwards Insurance Services Ltd, had always been successful offering general types of insurance. Equally they like to create a culture of innovation within the business and in a competitive market they knew they could be even more successful by being different and offering more specialised and innovative insurance solutions'.

3.2 Effective use of technology

When an opportunity arises, how do you make it reality and why would open source software provide the answer?

Property managers and estate agents are always eager to enhance and improve their service to their landlord clients who rent commercial and residential property. Agents who can arrange insurance for landlords is a bonus if you are the landlord, but as an agent the traditional methods of managing the insurance records are time consuming. Morrison Edwards saw an opportunity and knew that property managers and estate agents wanted to eliminate this hassle.

Morrison Edwards had established a good business 'we had the ability to negotiate exclusive policy wordings and pricing arrangements with major insurance underwriters. This allowed us to offer an innovative approach based on a "fleet" policy of insurance to property managers, who then could offer a bespoke insurance scheme to their landlord clients. Immediately, the property managers saw the benefits'.

'We had the innovative business idea, together with the ability to deliver a specialised scheme. We knew an IT solution was inevitable and more sophisticated than we currently used but our experience of IT was not a matter to celebrate – it never seemed to do what we wanted it to do'.

3.3 How reluctant to IT can be overcome

The Morrison Edward's IT system had been developed, some years earlier, as a standalone database system to collect information on the insured properties. Administering the data required a regular central collation of user backups, of their separate systems, to communicate the risks held to insurance underwriters. It required many man-hours to produce reports and to maintain the overall integrity of the numbers of users. In addition, real-time data could not be viewed. Traditional methods of arranging and managing insurance requires much correspondence between at least three parties, culminating in frustration, lengthy processes and duplication of work.

'When we embarked on this project we had very little experience of sourcing a bespoke software solution, so we approached this issue with some trepidation. Being "first" to offer such an innovative way of providing insurance meant there was nothing 'off the shelf' we could use'.

Through the personal referral of a mutual customer, Morrison Edwards approached Presence Systems Ltd, based in Harborne, Birmingham who have a track record of developing bespoke database solutions for a wide range of customers and application requirements.

PSL managed to gain the confidence of Morrison Edwards very early on in the discussions. The challenge was to deliver a functional system combined with

'Clearly it pays to know what your users will think before you roll out a system that they may either love or fear'

correct choice of technology allowing minimal maintenance with maximum availability. In addition, and of primary importance, were the means to expand the user base without parallel increase in system costs or the need for lengthy implementation and training. It would be accessed by staff at many client sites.

PSL grasped the precise nature of requirements and were able to react quickly and flexibly to deliver a solution without sacrificing functionality.

'Presence Systems Ltd selected open source software as their top choice for developing our bespoke system, providing the most cost effective and flexible solution with the ability to rescale the solution once this lucrative business opportunity turns into business growth'.

PSL knew that a web-based application, with an Internet interface, allowing real time interaction would satisfy requirements. PSL's experience allowed them to build a secure Internet communication infrastructure. High levels of security were fundamental to success. Importantly, the most cost-effective purchase and running price had to be considered.

PSL had already spent some time investigating the use of open source software as development tools and systems. The solution developed for Morrison Edwards' was completed totally by utilising open source development tools and a maintained environment. The growing number of potential users of the new extranet gave impetus to utilising systems that would not require complex and growing expensive licensing of constituent parts of the overall system. An innovative solution was achieved which did not sacrifice functionality.

3.4 Secure breakthrough approach

Morrison Edwards' bespoke package is a 'first' in the world of property insurance.

A secure extranet web site was developed where dedicated Morrison Edwards' staff manage data. Property managers submit requests for insurance quotes via email or by fax. Via secure logins, property managers access the easy-to-use web-application for data interrogation and the production of insurance documentation. A key feature is that an insurance certificate can be created as a PDF and issued immediately, at the 'point of sale'.

Security was an issue, 'we could not allow anyone intent on fraudulent misuse of the system to have access. We have no concerns in this respect – the extranet web site is secure and exceeds our expectations'.

Having this online system allows property managers to see at a glance all of the properties insured and instead of having multiple renewal dates to contend with, only one renewal date is in place. Agents can now budget more effectively and use their time more efficiently'.

3.5 An open future

Presence Systems Ltd are delighted with the overall range of tools and methodology of using open source systems. They are using OpenAdvantage as an ongoing training and R&D resource. This also enables further investigation of existing open source products in the marketplace that can be bolted on to expand this system and other projects in the future.

'Presence Systems are of the view that IT provision will be much more a service-based industry than a product driven market in the future. Software providers will require and offer a range of development and infrastructural skills best fitting the needs of the customer and this will include where ever possible utilising functionality from an open pool of tools and existing utilities.'

'Presence Systems Ltd selected open source software as their top choice for developing our bespoke system, providing the most cost effective and flexible solution with the ability to rescale the solution once this lucrative business opportunity turns into business growth'

'Utilising open source software to develop this system meant that the opportunity became reality'.

'Everyone at Morrison Edwards now realises that having an IT solution that "does what we want it to do" has really encouraged us to have faith in IT. We had never before heard of open source software. We can deliver our specially negotiated products, within reduced response times, administer our unique service easily and know that additional functionality can be included when we want'.

Presence Systems Ltd have taken full responsibility for the design and support of the infrastructure to host the system. There is no new IT systems 'know how' to be understood or maintained by Morrison staff.

And the IT aspects:

Extranet Solution developed by implementation of a full 'LAMP' compliant system i.e. Linux Red Hat Server host – Apache Web Server, MySQL as the database, PHP & Perl programming, with freely available PHP library function.

4. Leisure Music and The National Business to Business Centre

Leisure Music is a retail music outlet based in Weddington, Nuneaton, founded by Bryn Evans and has been trading for 21 years. The business sells musical instruments, amplifiers, sheet music and accessories.

The company already had a small amount of IT in place, split across two locations: the main retail outlet and a home office. The two work environments were disparate, but both had ADSL (Asymmetric Digital Subscriber Line) connections. The IT infrastructure was very basic with users waiting to use computers for specific tasks, as no internal network was in place.

Leisure Music approached The National B2B Centre – one of the three strategic partners in the OpenAdvantage programme in the West Midlands – the initial aim was to implement a simple network with file sharing capabilities and to take better advantage of the ADSL connection at both office sites. Leisure Music had also already invested in a website with basic functionality.

4.1 Impartial expert advice

Following discussions with an E-Business Consultant from the B2B Centre, not only was there a need for a small network, but additional business requirements were also identified. Primarily, the need to better exploit the Internet and raise the profile of the business. Their current Internet presence and e-business capabilities had seen the investment well above the amount of return they were generating.

The end result has meant the implementation of:

- An internal file server using SUSE Linux.
- A simple internal network.
- A firewall/VPN server and ADSL router.
- Development of an osCommerce on-line shopping system.

This resulted in Bryn, with the assistance of an experienced consultant from the Centre, developing the requirements for a website that could be easily maintained and edited by Leisure Music staff and also have the ability to have a fully functional on-line catalogue.

The National B2B Centre carried out an E-Business Assessment and proposed a number of possible solutions to improve the use of the current IT systems in place and also connecting the two business locations together.

The assessment has enabled Leisure Music to approach OpenAdvantage and relevant IT support staff with all the appropriate information to accomplish the work.

The end result has meant the implementation of: An internal file server using SUSE Linux. A simple internal network. A firewall/VPN server and ADSL router. Development of an OS Commerce on-line shopping system.

4.2 Providing a competitive advantage

'...we are really seeing the benefits and cost and time involved dramatically reduced... The new systems we have in place allow us a lot more flexibility in the way we work' Clair Evans – Leisure Music

Leisure Music now has a scalable and cost effective internal network with a central file server and system backup routines. Which means they are now able to share information across the two work locations (home and office), saving them time and effort.

They have also been able to redeploy a machine that was previously too slow as a desktop machine, by installing the Linux operating system. The VPN server provides secure access to the office network from the home office, and the firewall protects the network from unauthorised access. The ADSL router has given them a shared Internet connection, which now enables all machines to access the Internet.

Clair Evans commented, 'We now have a robust website that can be easily and quickly maintained and updated by all of the staff. By not relying on third parties to do this for us we are really seeing the benefits and cost and time involved dramatically reduced'.

She also added regarding the new infrastructure, 'The new systems we have in place allow us a lot more flexibility in the way we work, with easier and hassle-free access to information'.

The company did have some initial issues with the systems but these were typical of any new IT implementation. They have a good support network with local IT vendors, and a continued relationship with The National B2B Centre. The solution has provided Leisure Music with a low cost infrastructure that will enable them to develop and grow as a business, and are now more in control of their e-business, and has provided them with a stable platform on which to expand.

5. Conclusion

The common denominator to these three case studies is not Linux or open source technologies but, more importantly a clear understanding of the requirements of their respective businesses. Couple this with a clear picture of where you are now and where you need to be, and this provides the real foundation for exploring the right technology solution.

The three organisations featured are very different, operating in very different space, with very different business needs. It is also true that whilst each – almost certainly relied on technology to manage their business – none could be said to be overly technology savvy. Therein, perhaps, lies one of the key messages, they each adopted a very open approach to the technology solution to meet their specific business needs.

You will already know that technology deployments are both specific and unique to the needs of your business and as such, virtually impossible to compare. A deployment of 1000 machines across one organisation will almost certainly differ from 1000 machines deployed in another. The differences will occur in software, training, usability, business drivers, costing factors and many many more variables. Sure, there may be similarities across deployments, but these similarities probably end at the hardware architecture and software applications. How that hardware and software is deployed and how it ultimately benefits the organisation is certainly different; these will be sparked from, differences in business strategies, IT strategies, organisational cultures and perspectives on building a successful infrastructure. The 'overall business benefits of the IT solution' will always be the key determining factor. You need to be able to feel the quality of the ride, not merely hear about the vehicle.

There is no blind open source advocacy here, no suggestion of technology solution trying to find a business need. open source is not always right. However, it cannot be denied there is huge interest and equally huge benefits being achieved through the adoption of open source, particularly amongst medium sized businesses. It is perhaps at this end of the food chain where IT makes more of a critical difference to the overall business model, where money is often tight and resources limited. It is this area where the IT can be a real differentiator.

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Further Information

OpenAdvantage is a unique initiative providing the West Midlands region – which encompasses the counties of Warwickshire, West Midlands, Staffordshire, Shropshire, Herefordshire and Worcestershire – with a Centre of Excellence specialising in open source software.

OpenAdvantage was the first and remains the only UK independently funded vendor-neutral organisation, providing expert impartial advice on all aspects of open source. This includes free consultancy and a wealth of knowledge sharing activities – seminars and training workshops – focussing on all aspects of open source software and how you can best use it.

The West Midlands open source solutions centre, is funded by Advantage West Midlands, and is a partnership between the University of Central England, The National Business to Business Centre (Warwick University) and the National Computing Centre.

The programme aims to become a regional and national focal point for Open Source developers and users, to promote and encourage the take up of open source software within the West Midlands and showcase solutions, providing tangible economic and business benefits for organisations across all sectors.

OpenAdvantage can be contacted at:

OpenAdvantage
95 Broad Street
Birmingham
B15 1AU

Tel: 0121 634 1620
Fax: 0121 634 1630

Key Links

www.openadvantage.org – OpenAdvantage

www.nb2bc.co.uk – The National Business 2 Business Centre

www.leisuremusic.co.uk – Leisure Music

www.releasenetworks.co.uk – Network Consultants

www.p-tech.org.uk – IT Consultants

www.oscommerce.com – the e-commerce solution chosen by Leisure Music

www.response-maintenance.co.uk

www.impactapplications.com





UCE Birmingham	open advantage WEST MIDLANDS OPEN SOURCE SOLUTION CENTRE	
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The National Computing Centre
Oxford Road
Manchester
M1 7ED
www.ncc.co.uk/principia
e-mail: principia@ncc.co.uk

Principia 