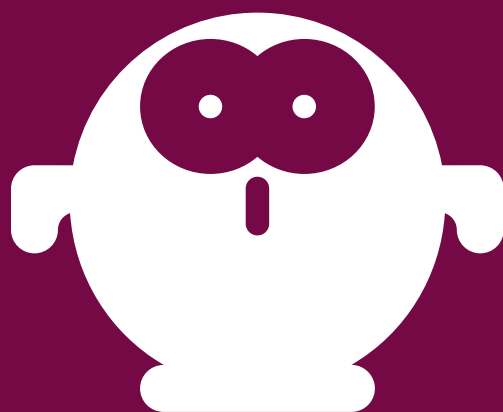


WHITE PAPER

Open source: an educated decision

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Open source: an educated decision

DE-BUNKING THE MYTHS CREATED TO SCARE YOU OFF

To deliver the best learning experience for students, educational institutions in the UK must deliver consistently excellent IT services, often on a shoestring budget. One way to achieve this is to consider moving from costly, proprietary software systems to popular open-source alternatives.

While proprietary systems mean high licensing costs across the operating system, office tools and anti-virus software, you can download open-source software for free and roll it out to any number of servers or desktops. Providing light, agile, secure alternatives to bulky proprietary systems, open source can give students a better, faster experience; minimise management workloads; and greatly improve performance on older hardware.

These clear cost and performance benefits are driving an open-source revolution in educational institutions across Europe, from France and Germany, to the Netherlands and Russia. However, despite recent support from the Government's Deputy CIO Bill McCluggage, who is meeting with top public sector IT suppliers and setting up an open-source implementation group, uptake is still relatively slow here in the UK.

So why exactly are schools, colleges and universities in this country so shy to give up familiar, proprietary IT systems? One convincing explanation is the "fear factor" propagated by the proprietary software companies themselves. Through well-versed myths, they maintain that proprietary is best, and open source is a risky, anarchic, unsupported alternative.

In this white paper, we de-bunk the myths that proprietary companies have built up to discredit open-source technology, explaining how it can help schools, colleges and universities reduce costs, improve IT performance, and prepare students more effectively for the world of work.



MYTH 1: OPEN SOURCE COSTS MORE

THE REALITY: EDUCATIONAL INSTITUTIONS CAN MAKE MASSIVE SAVINGS WITH OPEN-SOURCE SOFTWARE

When proprietary software vendors started to feel threatened by open-source code in the 1990s, they started a new rumour: deploying open-source software is actually more expensive than buying proprietary licences. Linux skills, they say, are more expensive than proprietary – and open-source maintenance and support costs are prohibitive.

While it's true that proprietary software companies offer special prices to educational institutions, their cost argument still doesn't hold up to scrutiny. In fact, the cost of buying per-user licences for the operating system, office productivity suite and anti-virus tools far outweighs the costs associated with deploying, maintaining and supporting open-source systems. After all, open-source software can be downloaded completely free – from the operating system to all the office productivity tools you need and around 29,000 other applications.

Let's use an example to illustrate the point. A university with 2,500 PCs would need to spend around £47,500 (this includes an operating system licence fee of £4 and £15 for Microsoft Office) on licences alone to upgrade to the latest version of the world's most popular desktop operating system. And this figure doesn't even account for required hardware upgrades, which could run into several hundred pounds per machine.

By contrast, moving the 2,500 workstations to an appropriate open-source alternative would incur no licensing costs (not just for the operating system, but also hundreds of software applications, including office suites such as LibreOffice) whatsoever, while total outlay on systems management tools and support would be around £28,000, delivering total savings of up to £19,500.

So what of the myth that open-source skills are more expensive than proprietary? The truth is that the cost of Linux skills will continue to fall as open source becomes more popular. In fact, the balance has already started to shift with many organisations delivering enterprise-class professional services and support for open-source systems that are priced with educational institutions in mind.



MYTH 2: COMMERCIAL SOFTWARE PREPARES STUDENTS BETTER FOR THE WORLD OF WORK

THE REALITY: STUDENTS ARE MUCH SMARTER AND MORE ADAPTABLE THAN WE THINK

Sellers of proprietary software argue that their technology gives students the best possible start in life. Most workplaces run their servers and desktops on proprietary software, they say, and learning the ropes as children gives us a unique advantage as we enter the job market.

While this argument seems to make sense, it dramatically underestimates students' intelligence and adaptability. Today's open-source systems offer many of the same features as proprietary desktop systems, not to mention a very similar look and feel. As a result, anyone who can use open-source operating systems and office tools can switch to proprietary quickly and easily, with no additional training. In fact, it has been said that the move from Microsoft Office 2003 to Microsoft Office 2010 is a bigger learning curve than the move from Microsoft Office 2003 to LibreOffice.

Equally important is the fact that open-source systems are making massive headway in corporate computing environments. Already, half of FTSE 100 companies use open-source systems, and the percentage is growing all the time. Students who use Linux-based systems from an early age will have great benefits in the employment market – particularly if a company is implementing open-source projects.

Today, open-source skills are required for many specific roles and industries. All of the large application development houses, for example, depend on open-source technologies for their daily output. As a result, students with a good grasp of advanced Linux functions will be at a distinct advantage as prospective employees.

MYTH 3: PROPRIETARY SOFTWARE PROTECTS YOUR SYSTEMS AND THE STUDENTS WHO USE THEM

THE REALITY: OPEN-SOURCE SOFTWARE IS THE SAFER OPTION

To ensure students and systems are properly protected, large software vendors offer costly, complex security packages. However, with the vast majority of viruses and malware written for proprietary systems, attacks are common and administrators spend hundreds of hours ironing out security issues.

By contrast, open-source systems offer much higher levels of security, with no need for costly per-user anti-virus licences. Because very few viruses target Linux, the risk of malicious attacks is greatly reduced, and administrators can focus their time on value-added IT projects that benefit both educators and students.

As open-source software gains traction, malicious programmers will surely create new viruses and malware to target it. However, the open-source community will always stay one step ahead of the game, and Linux will remain light, agile and secure.



MYTH 4: STUDENTS WANT THE PROPRIETARY SOFTWARE THEY'RE USED TO

THE REALITY: NO, THEY JUST WANT TO GET ONLINE

Many IT managers and administrators in schools, colleges and universities use students as an excuse not to implement open-source systems. There is a feeling that students want the same tools they have at home, and they won't accept any changes to their desktop environment.

In fact, research has shown that students are mostly very open-minded when it comes to adopting new technologies. As long as they have access to the office tools and messaging functionality they need – and their social networks of course – they adapt extremely quickly and easily. Some also become fascinated by the flexibility of open-source technologies and go on to have glittering careers in open-source application development.

MYTH 5: COMMERCIAL SOFTWARE WORKS BETTER THAN OPEN SOURCE

THE REALITY: OPEN-SOURCE SOFTWARE GIVES YOU FASTER, MORE RELIABLE SERVICES – ESPECIALLY ON OLDER HARDWARE

Large software companies invest millions in making their programmes look attractive. However, they'd also have us believe that the underlying functionality is better than open-source alternatives, and that only their software offers the performance and reliability today's educators and students demand.

The main issue for educational establishments, however, is the sheer size of proprietary operating systems and applications. Bundling all previous versions together, and with a range of functionality you're never likely to need, these systems see third and even second-generation hardware virtually grinding to a halt.

By contrast, today's open-source systems are much lighter, offering faster, more reliable performance on older hardware. In the time it takes to boot up Windows on an older workstation, a student or teacher can typically check and respond to their emails, open several web pages and begin working productively.



MYTH 6: DEPLOYING OPEN SOURCE CAUSES DISRUPTION AND DOWNTIME

THE REALITY: YOU CAN START WORKING WITH OPEN-SOURCE SOFTWARE WITH ABSOLUTELY NO RISK WHATSOEVER

Proprietary software vendors highlight the risks typically associated with deploying new technologies, making open-source projects seem like rash decisions. However, a wealth of skills and experience is on hand to ensure your transition to open-source is smooth and issue free.

Specifically, by choosing the right commercial partner, your organisation can quickly identify users who can move easily to open-source software, and then design, test and deploy a suitable open-source solution with no risk of downtime or disruption.

MYTH 7: OPEN-SOURCE SYSTEMS ARE HARD TO MANAGE

THE REALITY: OPEN-SOURCE MANAGEMENT IS AS SIMPLE AS IT GETS

Proprietary software companies have created the myth that open-source systems are complex, difficult and time-consuming to manage. As a result, IT managers across the education sector fear making the change, and giving up their familiar proprietary administration tools.

The fact is that the world has moved on, and there are now tools to help you administer open-source systems simply and cost effectively. The best of these allow you to monitor, manage and update multiple open-source servers and workstations from a single, intuitive interface.

MYTH 8: PROPRIETARY SOFTWARE OFFERS BETTER SUPPORT OPTIONS

THE REALITY: YOU CAN GET ALL THE SUPPORT YOU NEED FOR OPEN-SOURCE SOFTWARE

Proprietary software vendors have spent years building online support resources, and their partner network is geared up to support deployments of all sizes. However, the argument that open-source software isn't properly supported just doesn't hold water.

This is because you can choose to engage excellent commercial support for open-source systems. By choosing the right support option, you'll typically get access to qualified open-source support analysts who are trained to resolve service issues quickly and effectively. What's more, you can get your hands on a wealth of community support resources, including forums, FAQs and Knowledge Bases that help you resolve issues without so much as making a call.

As the partner network around open-source software continues to expand, so do the options for local support partners. The important thing to realise is that with open source, you will never be alone.



MYTH 9: ONLY PROPRIETARY SOFTWARE IS “FUTURE PROOF”

THE REALITY: THE BEST OPEN-SOURCE SYSTEMS DELIVER SCHEDULED UPDATES AND LONG-TERM SUPPORT

The proprietary software giants say their technology offers continual improvement and long-term support based on an established technology roadmap. There are no grey areas, no difficult upgrade decisions and no confusion – just a clear way to ensure systems compatibility and enhance the end-user experience over time.

However, the proprietary technology roadmap can be more of a curse than a blessing, especially when it forces you to upgrade before you strictly need to. There’s also the risk of being locked into framework agreements for three, five or even ten years, with no guarantee that your funding will still be in place to pay for them.

Open-source software offers you a way out of this enforced upgrade cycle. The best open-source systems, for example, offer long-term support options that are completely future proof, delivering scheduled updates and patches and a minimum of two years’ support. The only difference to proprietary offerings is that it won’t force you to make costly, unnecessary changes to your environment if you don’t want to.

MYTH 10: PROPRIETARY TECHNOLOGY IS CUTTING EDGE

THE REALITY: OPEN SOURCE IS THE REAL INNOVATOR

Proprietary software vendors are self-proclaimed innovators, placing themselves at the cutting edge of software development. However, emerging technologies in the education sector are often better supported by open-source alternatives.

Thin-client computing, for example, is becoming an increasingly important way for educational institutions to reduce hardware costs and give users access to their applications and data from any terminal device. Based on functionality developed through the Linux terminal services project (LTSP), open source supports fast, cost-effective thin-client deployments. What’s more, by providing lighter, more agile code that can be easily customised and configured, open-source software gives you great performance and manageability.

For institutions that want to create public and private clouds to deliver shared computing services and resources, open-source software is also a great option. You can build and configure a multi-server private cloud with Linux quickly, and integrate it seamlessly with Amazon’s EC2 or the public cloud of your choice.

The simplicity of open-source configuration means time savings across all manner of IT operations – from building your own cloud to setting up a new server farm. Installation from a CD or DVD is quick and easy and the monitoring and management tools available help you do the rest.



Conclusion

Contrary to what proprietary software vendors may tell you, the benefits of open-source systems over closed-source competitors are extremely compelling. As well as the significant licensing and hardware savings on offer, the software gives students the best possible IT education, and ensures they're ready for the world of work. Open-source systems can also help you improve the speed of applications on older hardware, enhance systems security, and greatly reduce administrative workloads.

With such great benefits on offer, the question is why only a small number of educational institutions have made the change to open-source software so far. The truth of the matter is that IT managers and systems admins are under constant pressure to keep key systems up and running, and significant technology change is simply too stressful and difficult to contemplate.

While these misgivings are perfectly understandable, they are not easily justified. Today, a wealth of professional services and support is available to help schools, colleges and universities make the move to open source. By choosing the right open-source software and commercial partner, you can enjoy dramatic cost reductions, virus-free computing, enhanced systems management, and a range of other benefits.

Perhaps most importantly, you'll be able to deploy open-source software seamlessly, with no risk of disruption or downtime – and your deployment will be supported for the long term.

DISCLAIMER

The opinions expressed are those of Canonical. The paper is not an exhaustive technology comparison between the latest Ubuntu Desktop Edition and other commercial desktop operating systems.



About Canonical

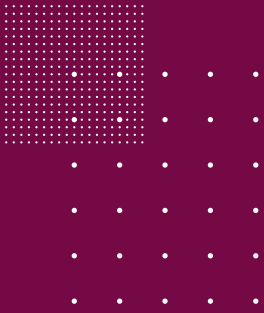
Canonical is the company behind Ubuntu, the world's fastest growing open-source operating system. We help educational establishments deploy Ubuntu to get rid of costly proprietary software licences, improve hardware performance, increase security and streamline systems management. What's more, we ensure Ubuntu continues to deliver maximum value based on long-term support options and a commitment to continual improvement.



If you want to find out more about the benefits of today's open-source software, get in touch with Canonical, the open-source experts, at www.ubuntu.com/business/services/contact

Alternatively, you can visit www.canonical.com or www.ubuntu.com





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