

Public Sector **Forums**

Open or Closed?

A Survey of Open Source Software in
Local Government

Public Sector Forums
August 2009

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Introduction and Background

With the current economic downturn placing public finances under significant pressure, local authorities need to prepare for a more challenging future. In a climate of increasing budget constraints, councils are now facing inescapable demands to develop new and innovative ways to transform services, generate cashable efficiencies and deliver more for less. At the same time, local government IT costs are rising: In January this year, Socitm (the professional association for public ICT management) reported ICT spending by UK local authorities would soar by 5% in 2008/09, reaching a record level of £3.2 billion of expenditure. These developments underline the need for councils to drive more value from their IT investments.

These imperatives are concurrent with a fresh resurgence of interest across UK government in open source software. In February, the Government gave an official (and according to some, long overdue) commitment to increase the use of open source software through the public sector – the first update in policy since 2004. Government has now redefined its approach to open source, asserting the need to give open source software equal consideration to traditional proprietary solutions. But will this new enthusiasm for open source in government be reflected in greater adoption? Is local government, the sector seen as potentially most receptive to open source, ready, willing and able to embrace this change? What do councils see as the key strategic, management and technical barriers to engaging fully with open source? And how can these obstacles be best overcome?

To help find answers to these questions and others, Public Sector Forums, who host an online community of some 14,000 professionals who work in and around the public sector, conducted research to examine the adoption, perceptions and experiences of open source technologies within UK local authorities. The survey, which preceded the publication of the UK Government Action Plan for Open Source on 24 February 2009, ran from 18 November to 12 December 2008 and was completed by 168 respondents. Responses were anonymous unless respondents provided contact details. The majority of those taking part were from District Councils (31%), followed by Unitary authorities (27%), County Councils (17%), Mets (14%) and London Boroughs (7%). The survey looked at variety of issues including:

- Distribution of open source technologies in local government
- Attitudes within local authorities to open and proprietary software
- Predicted growth of open source in local authorities, including local government business/IT areas expected to be impacted greatest by open source
- Perceived and real risks, challenges and barriers to open source adoption in local government, as well as areas of opportunity, and
- What needs to be done to help councils address these obstacles and increase their use of open source software.

This report, to the best of our knowledge, represents the most up-to-date and comprehensive 'snapshot' of the state of open source software activity in local government. We hope this report is useful and very much welcome your comments on our findings. You can send feedback and discuss the report at UKGovOSS.org, our online discussion and networking space.

Special thanks to Bull Information Systems and One Point Click Consulting for sponsoring this report. Finally, we would also like to take this opportunity to thank all those who took part in this research.

Summary and Headline Findings

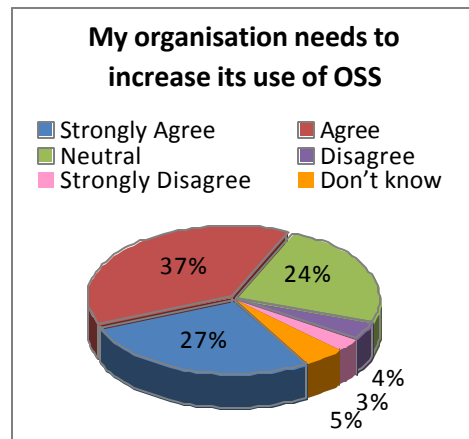
Open source software is already used widely by local authorities at many levels and for a very large number of different applications – primarily on open source web servers, databases and web publishing tools. Open source plays an important role in many councils' IT infrastructure, normally as part of a 'mixed economy' of both open source and proprietary software.

Though open source adoption in local government is wide and diverse, levels of usage have not yet extended to the same degree on the desktop. The survey shows Microsoft has an effective monopoly on the operating systems used on local government desktops. Aside from web and IT teams, the majority of local government staff are currently unlikely to interact knowingly with open source software in the workplace. Despite the widespread use of proprietary desktop software, there appears to be a distinct sense of concern within many local authorities about software licensing costs.

Open source office productivity software, however, has gained a small but significant foothold in a few local authorities. This is the single key area where councils believe open source will make the greatest impact over the next two years.

Two thirds of respondents (65%) believe their council needs to increase its use of open source software – with 27% of those surveyed strongly in favour. Most local government open source users are primarily attracted by the lower cost of open source software, followed by the potential freedom from supplier dependency.

Almost two-thirds of those surveyed believe the benefits of open source generally outweigh the drawbacks. However the general consensus is that local government fails to give sufficient consideration to open source in software procurements.



The research finds that open source use in local government will, overall, only keep increasing. The majority view (42%) is that local authorities will increase their use of open source software over the next three years. Around a third of those surveyed expect current levels of adoption to remain unchanged during this period. This highlights, however, a significant degree of uncertainty among sections of local government over plans for future adoption.

Technical obstacles are perceived to be less a major barrier to implementation of open source than internal cultural issues within councils themselves. A widespread perception exists in local government that open source software is too risky for councils to consider. If adoption of open source software in local government is to be increased, there is a pressing need to raise councils' confidence in taking the open source approach. Exemplar authorities who can demonstrate successful implementation to councils, along with greater endorsement of open source from central government, both have a powerful role to play.

Open Source Adoption Trends in Local Government

Use of open source software in local government will only increase

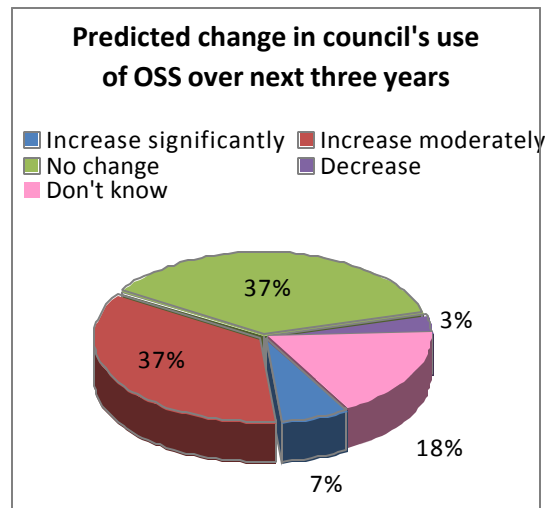
The majority of those surveyed (43%) believe the next three years will see their local authority increase its use of open source software. Most foresee a moderate rather than significant rise in usage. At the time of the research, which preceded the Government's announcement on its Open Source policy, around a third (37%) of respondents expected their council's level of open source adoption will remain unchanged. Just 3% predicted open source would be used less. Almost a fifth of responses fell into the 'don't know' category, maybe highlighting the sense of uncertainty in some areas of local government around potential adoption of open source software and a 'wait and see' approach.

Some two-thirds of those surveyed (64%) believe their organisation needs to increase its adoption of open source software, with a quarter of all respondents (27%) strongly in favour of such an approach. However this does indicate a third who were either neutral (24%) or disagree (7%) with councils using more open source, suggesting there are a substantial contingent in local government who still need to be won over.

With a few notable exceptions, the research found the standard desktop PC suite provided by local authorities to their staff appears to be almost exclusively a Microsoft environment. Of the local government users surveyed, an overwhelming 98% stated the PC provided by their employer ran a Microsoft Windows operating system. Alternative operating systems, such as Apple and Linux distributions, are currently a rarity on mainstream office PCs in local authorities. An overwhelming 83% of respondents said their PC used the older Microsoft Windows XP operating system, while just 4% indicated their council had transitioned to Windows Vista.

Microsoft's dominance on the council desktop was also made clearly apparent when we asked respondents which tool they mostly used for word processing at work. Unsurprisingly, Microsoft Office was the most common office application suite used for word processing in local government, named in 95% of cases - a slightly more positive picture for open source. The remaining 5% cited the open source OpenOffice Writer, or Sun Microsystems' commercial version, StarOffice Writer, as their primary word processor. More detailed investigations showed that councils who provided staff with alternatives to Microsoft Word were more likely to be using open source applications more widely elsewhere within their organisation.

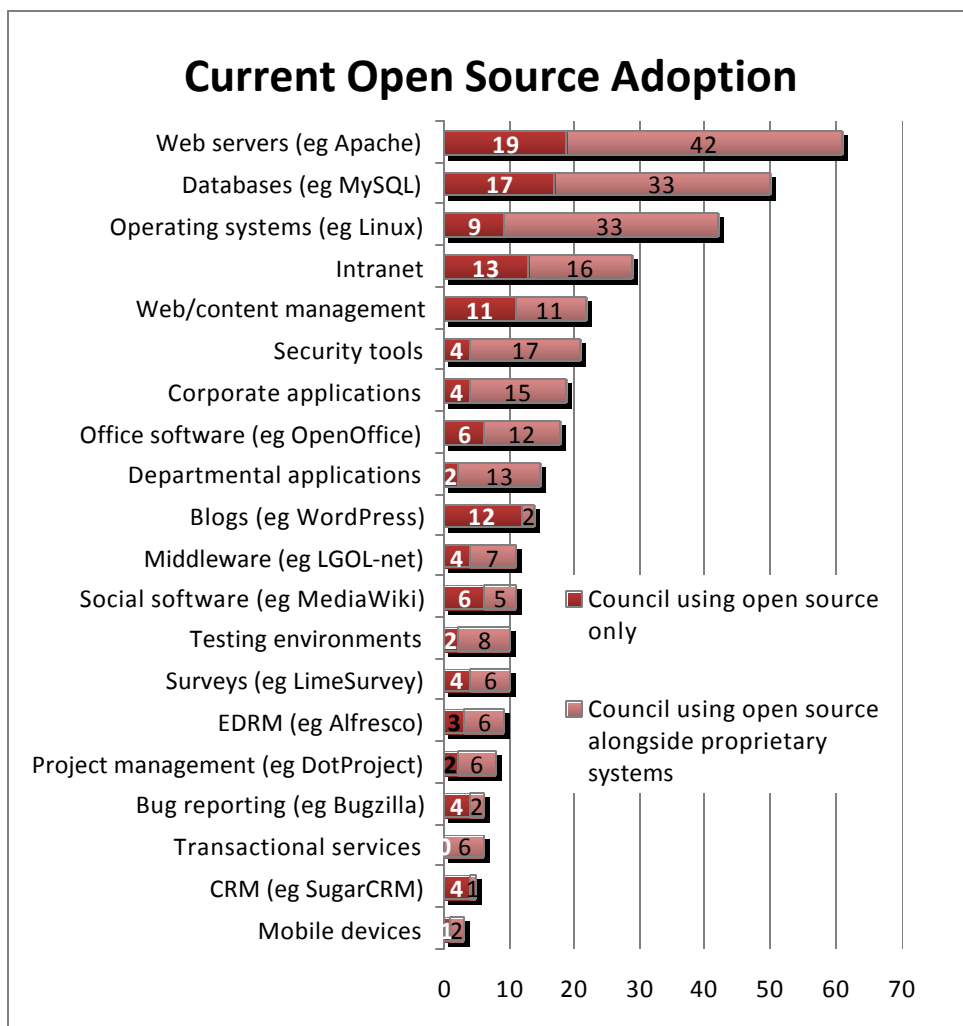
Councils' continued reliance on Microsoft Word comes despite research by the Office of Government Commerce in 2003 which concluded the functionality of OpenOffice was 'adequate for the majority of users – typically those performing procedural and routine activities and accessing only 'transaction' systems'. However as one respondent commented, 'If Microsoft drops support for XP/Office 2003 and insists on Vista/Windows 7 and Office 2007 that should drive more local government users to demand open source products'.



How Open Source Systems are Used in Local Government

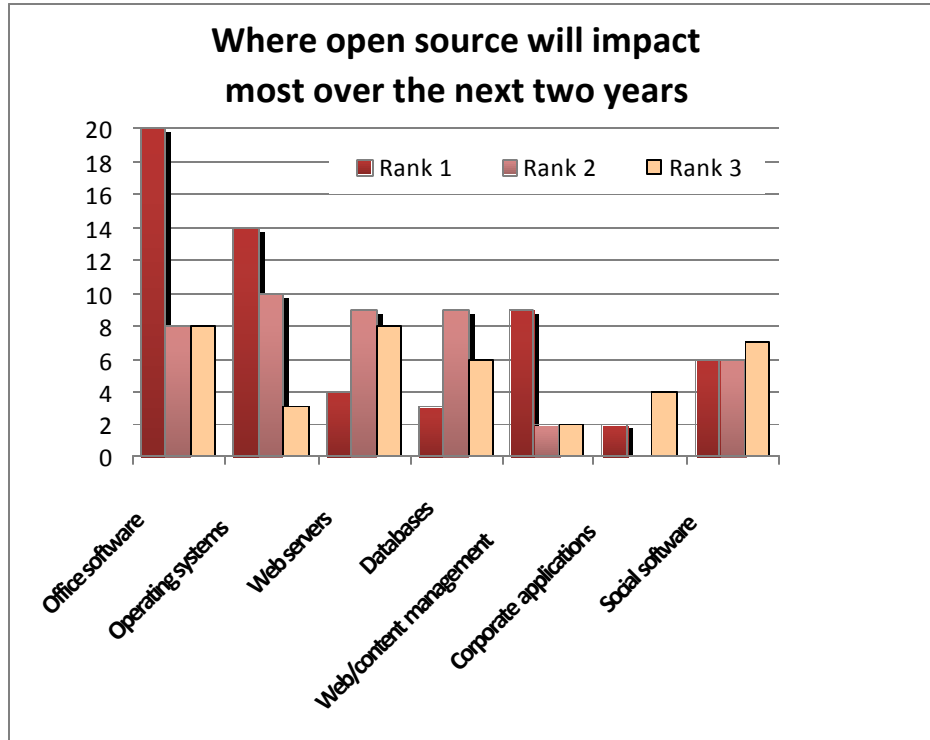
Open source software is already used widely by local authorities at many levels and for a very large number of different applications. The research shows, primarily, these are for server-based and publishing/content management purposes – for instance the LAMP stack (Linux operating system, Apache web server, MySQL database and PHP scripting language).

The research has identified within the sample 370 deployments of open source solutions by local authorities. Open source software already plays an important role in many councils' IT infrastructure, however the clear tendency is toward councils operating a 'mixed economy' of both open source and proprietary software. Comments from respondents showed that where open source operating systems are used, implementations are generally for dedicated systems rather than office desktop PC environments.



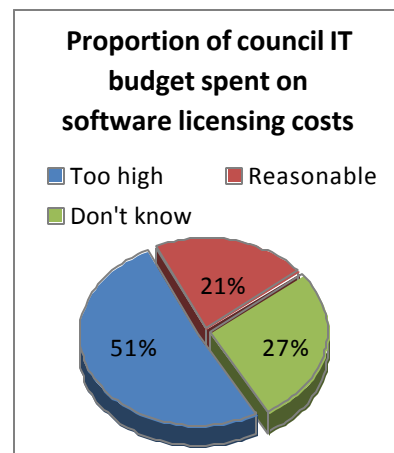
Future Growth Areas for Open Source in Local Government

We asked respondents to tell us what they thought would be the top three software areas where open source will have the greatest impact in local government over the next two years. Overwhelming, respondents pointed to office software, followed by operating systems, web servers and databases. Also featuring highly were web publishing, content management and social software, such as collaboration platforms and Wiki technologies, reflecting the rapidly-increasing use of Web 2.0 platforms in local government.



Councils' Thoughts on Software Licensing Costs

We asked local government members to specify, roughly, how much of their council's IT budget was apportioned to software licence fees. In over half of the responses, software licensing costs commonly represented a substantial proportion of between 30% to 40% of local authority IT budgets. Of those who answered this question, 50% felt this was too high - none believed this figure was too low. Elsewhere in the survey, three-quarters of respondents (76%) said their council was sometimes 'too reliant on proprietary software suppliers', with 30% agreeing strongly with this statement.



Open Source Benefits in Local Government

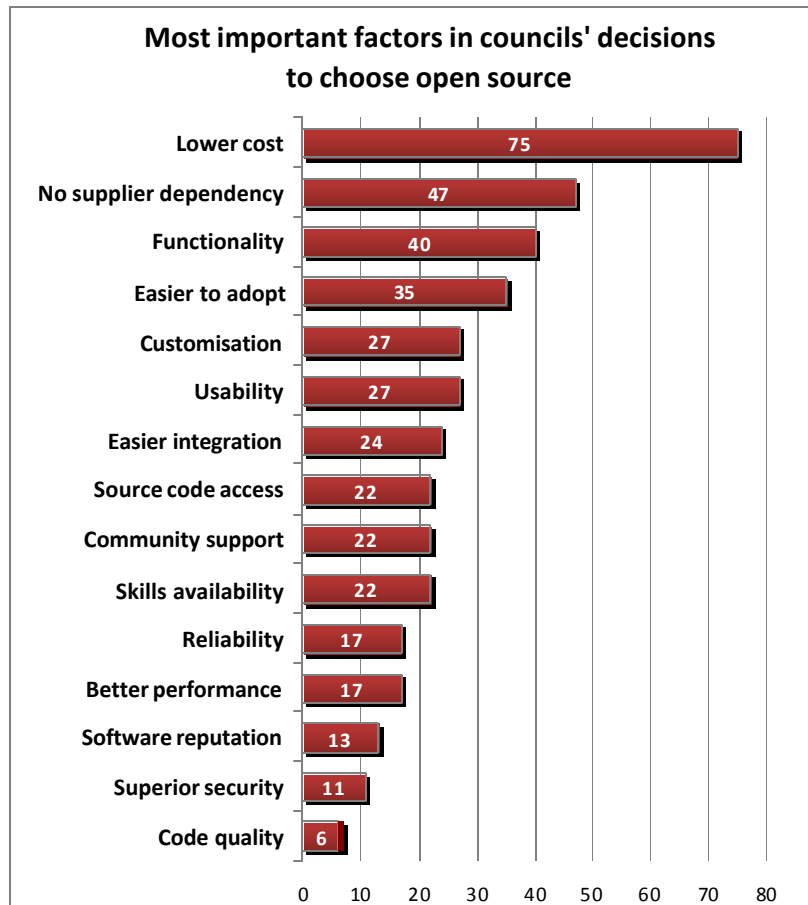
Given the need for councils to control IT and business costs, the survey confirmed most local government users of open source are primarily attracted by the lower costs of the software. Councils as a whole see the cost savings benefit as the key advantage of open source and as such, this aspect is valued very highly by local authorities.

Cost savings emerged, by a clear length, as the top reason why local authorities had chosen open solution solutions. Three quarters of respondents (75%) cited lower cost as one of the most important factors in their decision to use open source.

Following this, as the second most key driver of adoption, is the view that open source affords councils the potential freedom from dependency on particular suppliers. Almost half (47%) of those surveyed cited this reason, while 41% were drawn by the functionality of the software itself.

Some 34% were attracted by the prospect that an open source solution would be less difficult to adopt than a proprietary one. A similar percentage (27%) cited the customisation and usability aspects of open source as an important driver, while 24% put forward the ease of integration. Less important reasons for choosing open source included access to source code and community support, along with the availability of skills to implement the solution, rated by 22%. Fewer still cited reliability, security or the performance of the software as a main factor in their decision.

Does this indicate that when choosing software, cost efficiencies and freedom of vendor-lock-in are more fundamental concerns for councils than the actual track record of the software in question?



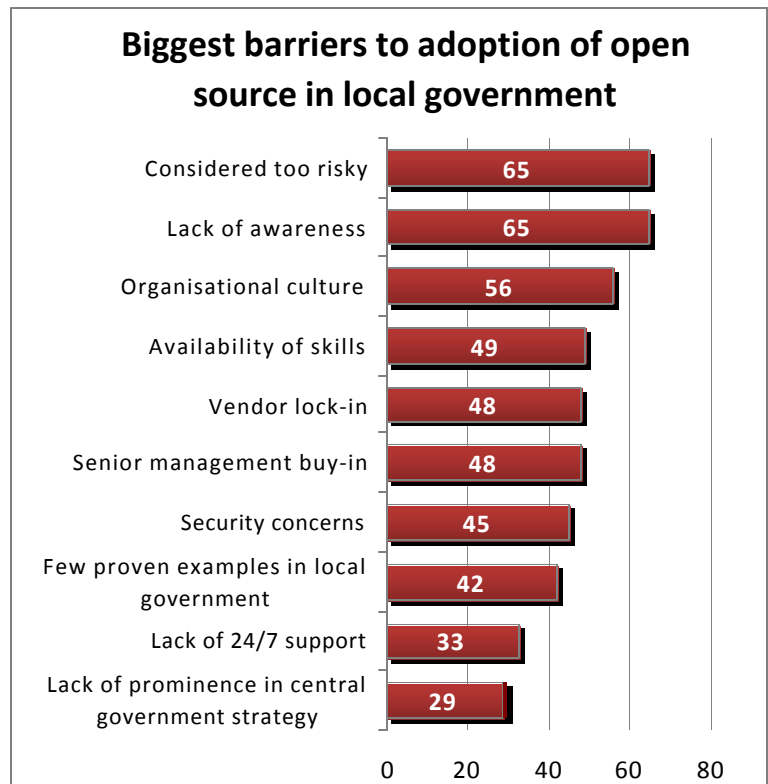
Open Source Barriers in Local Government

Overall, the majority of respondents (63%) felt the benefits of open source software generally outweighed the drawbacks. This reflected a trend throughout the survey whereby at least a third of all respondents from local government appear yet to be completely convinced by the arguments of open source proponents.

There are, however, clearly major barriers to entry in local government. As the survey found, only a quarter (24%) of respondents said their council considered open source when procuring software – with 44% stating this was not the case. We therefore sought to pinpoint what these were and which were seen to be presenting the greatest challenges.

Of the 168 respondents, 61% registered specific barriers with responses, indicating a multitude of important factors.

Here there were both some surprises and some very predictable views expressed. Technical issues were felt by councils to be a significant barrier to open source adoption, but not the most important. As the responses showed, primary obstacles identified by our respondents tended to relate overwhelmingly to organisational culture issues in local government, such as lack of buy-in or understanding at senior level, resistance to change and internal objections from management and users. Such sentiments were reflected in the comments from our respondents, such as these two examples below:



'We've used open source in the past. In general users were hostile as they merely see it as the organisation attempting to cut corners by not giving them 'proper' (ie Microsoft) tool set. As an IT manager I also feel there is a degree of risk as you are at the mercy of technical evangelists who can up sticks and leave you without support'

'Senior IT Management seem to be locked into thinking that only expensive, badly-integrated platforms incurring massive and complicated installation projects are worth considering. 'It must be good because they charge so much!'

The perceived risk of open source continues – rightly or wrongly – to be an extremely serious concern for councils, with strong indications that this is impacting very negatively on its adoption in local government. Around two-thirds (65%) believed the perception by management that open source is 'too risky' is preventing councils from increasing their using open source.

A similar percentage felt that take-up by local authorities was also mainly held back by a lack of awareness of open source software, with 42% also citing the scarcity of proven examples of open source use in local government, which may be linked issues. When asked what would help councils to increase their adoption of open source, the top issue highlighted was the need for more visibility of successful implementation across local government, in particular high-profile, practical case studies of success, proof of concepts and greater knowledge transfer of 'what works'. Many held the view that if councils could see successful, real-world examples in leading authorities, many would be more inclined to follow suit. One respondent set out their wish list of what they required:

'Good, relevant examples of IT infrastructures based on open source. Five year cost comparisons. Value added exercises (what you actually get and what you use, out of what you have procured, after one year). People to talk to and who can come and persuade the intransigents. A persuasive argument for the simplicity of open source, when considered at Enterprise level or at a departmental basis'. A persuasive argument of three-year efficiencies. But mostly people to talk to who are knowledgeable and experienced.'

Concerns about security, being 'locked' into an existing commercial supplier and the willingness of vendors to integrate with open source applications also featured prominently here, whilst other hurdles mentioned included availability of skills and support.

Notably, central government's historical lack of encouragement and support for open source, and its perceived unwillingness to 'lead by example', were also identified as a significant factor in councils' ongoing reluctance to adopt open source. 'The Cabinet Office promote open source software, but hardly use any themselves', said one response. Other respondents felt a stronger lead from Whitehall 'in the same way they pushed the IEG initiatives' would give councils the necessary impetus to explore alternatives to proprietary software. The need for a central government-'endorsed' list of open source applications was also mentioned. One respondent asked in particular for 'guidance from central government that we can wave at IMT who are too concerned by risks - and include benefits as well so we can get buy-in from senior management.' One respondent articulated the key issues at stake in this report in the following comment:

'A big factor in pushing open source use into local authorities would be larger backing from central government; we are in a climate where we are trying to save money and massive savings could be made from bringing in open source alternative solutions into the workplace, dramatically reducing licensing costs. Some kind of centralised, government-driven support service (or even one distributed by a group of specialised officers working for different local authorities) could help to reassure local authorities that this could help their budgets and that there would be (albeit basic) support available to them... I also think there is a certain psychology in using 'branded' products such as Microsoft Office instead of OpenOffice, as it is a tried and tested name. If these boundaries could be overcome and it could be prove that the open source alternatives do just as good a job, then open source could play a big part in our government organisations.'

Public Sector Forums will be working with partners to help address the issues raised in this report via UKGovOSS.org. We will be forwarding a copy to the central and local government Chief Information Officer Councils for their response.



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One Point Consulting is a premium quality consultancy specialising in Open Source, Enterprise Architecture, and Technology Consulting.

Our core team come from Global Systems Integration and Big 4 management consulting organisations and have extensive experience in Open Source maturity models, development and applications.

Our expertise in Enterprise and Systems Architecture has allowed us to design mission critical systems for our FTSE 100 clients. We bring this rigour in the selection and adoption of open source solutions.

We can help you gain the advantages of Open Source, reduce risk and provide high quality implementation and support.

We believe that open source and open standards are paving the next generation of Enterprise IT. Make an informed decision and realise the benefits of Open Source.

Adoption in Local Government

The open source survey presented in this publication provides interesting insight for the first time.

- "Some two-thirds of those surveyed (64%) believe their organisation needs to increase use of open source software".
- "Three quarters of respondents (75%) cited lower cost as one of the most important factors in their decision to use open source".
- "Almost half (47%) cited that open source affords councils the potential freedom from dependency on particular suppliers".
- "Around two-thirds (65%) believed the perception by management that Open Source is `too risky` is preventing councils from increasing their using Open Source".

Adoption Across Industries

- Open Source Enterprise Applications on the Rise, IDC Study Shows. June 19, 2009.
- OSS isn't just cheap — it's good and cheap. A vast majority (i.e., 92%) said that their quality expectations have been met or even exceeded. The satisfaction regarding cost was on a similar level at 87%." (Open Source Paves The Way For The Next Generation Of Enterprise IT, Forrester Consulting, November 2008).
- CFOs start to see the benefits of Open Source. Recent Gartner research suggests that over 27 percent of enterprises will deploy Open Source software in 2009.

It is clear that whilst the benefits such as cost savings, no vendor lock-in, functionality are now recognised, it is interesting that about two-thirds believe they need to increase their use of Open Source Software. There is clearly a gap here, between this need and the knowledge of how to go about it. One Point can help bridge this gap with expert advice gained from real world experience.



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Our Thanks to the Sponsors of this Report:



Bull Information Systems

In the UK, Bull has more than 30 years experience in the Public Sector. Today, Bull sells primarily to Local Authorities, Non-Departmental Public Bodies, Higher Education and Healthcare. Bull has participated and led many EU projects which use Open Source software to develop integrated ICT solutions for E-Government, Defence and Health. Bull is the only European IT vendor to be involved at three levels in Open Source:

- As a manufacturer, creating Open Source components for its hardware platforms
- As a systems integrator, offering a wide range of open software services, from support to integration
- As a software publisher, delivering added value on the back of existing Open Source components.

Bull was co-founder of ObjectWeb, in 2002. In 2006, Bull became the first strategic contributor to JBoss's SOA offering its development skills, a 400-strong research and development function and service departments including Support, Training and Integration.

Bull provides consultancy, design, development, migration and support services for application integration using Open Source technologies. Through its Managed Services business unit Bull UK&I also provides application hosting, management and Disaster Recovery services for Open Source based solutions.

With its R&D investment in Open Source, its resources as a major manufacturer, and strong history in Public Sector, Bull has become, arguably, the number one integrator of Open Source based solutions in the EU Public Sector.

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One Point Consulting

One Point Consulting specialises in Enterprise Architecture, Open Source and Biometric ID solutions. One Point Consulting provides consultancy and implementation services in:

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- Open Source Solutions
- Assessing maturity of Open Source solutions.

The core team consists of individuals with over 28 years' experience of providing Corporations and SMEs with Management and Information Technology.

- The team has experience of working for leading systems integration and Big 4 consultancies including Logica, EDS, Unisys, Andersen and Deloitte;
- The team has global experience of working for FTSE 100 and FTSE 250 clients in Media, Telco, Finance, Life Sciences, Legal, Pharmaceuticals as well as Local and Central Government;
- The team has wide experience in specifying and implementing EDM systems for Local Government, from full corporate plans to local systems, including planning, building control, social care and ICT
- Unlike other consultancies the team has worked together for many years.

Our team has extensive experience of the local and central Government sector. Clients include Westminster City Council, Ealing, Newham, Woking, Luton and Peterborough Councils, and in the Central Government arena, the Foreign & Commonwealth Office, Metropolitan Police Service, the Ministry of Defence, Highways Agency, English Partnerships, Qualifications and Curriculum Authority, Office of the Qualifications and Examinations Regulator (Ofqual) and the Countryside Council for Wales.

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Public Sector Forums

About Public Sector Forums

Public Sector Forums is a leading and truly independent community of public sector professionals whose membership covers every UK local authority and virtually all their central government counterparts.

Our network provides news, help, support and interaction for members through regular conference meetings and online via interactive events, a dedicated website and weekly newsletter.

To find out more, visit www.publicsectorforums.co.uk and www.psfbuzz.com. You can also now follow us on Twitter at twitter.com/psfbuzz.

UKGovOSS

About UKGovOSS: Open Source Government Community

Established by Public Sector Forums, UKGovOSS.org is an online discussion and network space to promote the use of open source software and open standards in the public sector.

This independent open community, which is not supported or funded in any way by the UK Government, provides a forum to connect those who share an interest in the potential of open source in government.

To join the community visit UKGovOSS.org on the web, where a copy of this report is available online.

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