

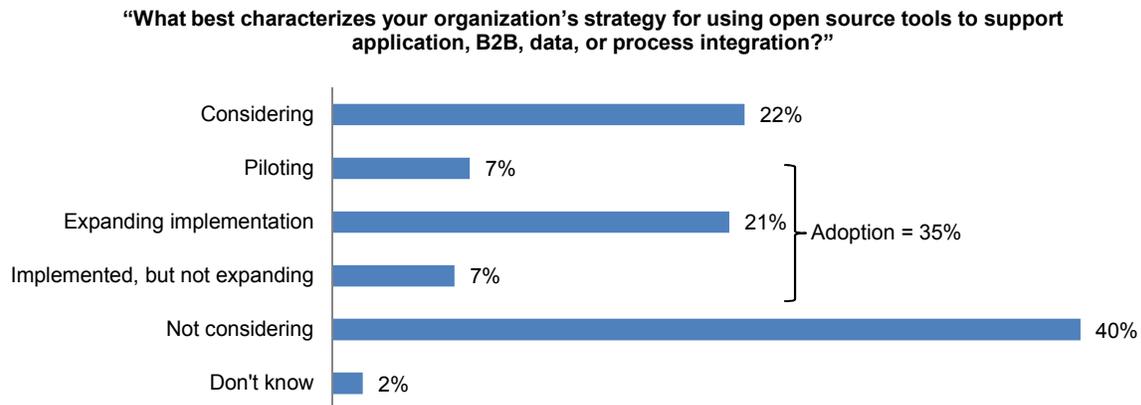
The Move Is On To Open Source Integration Software

Forrester Surveys Show Adoption Of Open Source Integration On The Upswing

The current economic environment has prompted firms to seek out low-cost yet effective ways to meet their needs for application and data integration. Forrester's research indicates that a critical mass of businesses across all industries are now considering, piloting, or deploying open source integration solutions. Cost is the key factor fueling the adoption of open source integration software, but enterprise IT decision-makers cite other advantages as well. Of course, customers report barriers to broad adoption of the technology too. This paper explores some relevant data on the adoption drivers, pain points, and usage trends related to the use of open source integration technology.

Figure 1

The Majority Of Respondents Have Adopted Open Source Integration Or Are Considering Doing So



Base: 121 application development and enterprise architecture personnel
(percentages do not total 100 because of rounding)

Source: Q4 2011 Global Integration Online Survey, Forrester Research, Inc.

Affordability, Flexibility, And The Mainstreaming Of Open Source Drive Adoption

Traditionally, the comparatively lower costs and higher flexibility of open source integration have driven its adoption. Open source software generally costs half as much to acquire as conventional licensed software, and enterprises select open source alternatives to conventional software as they seek to drive down costs. As the current



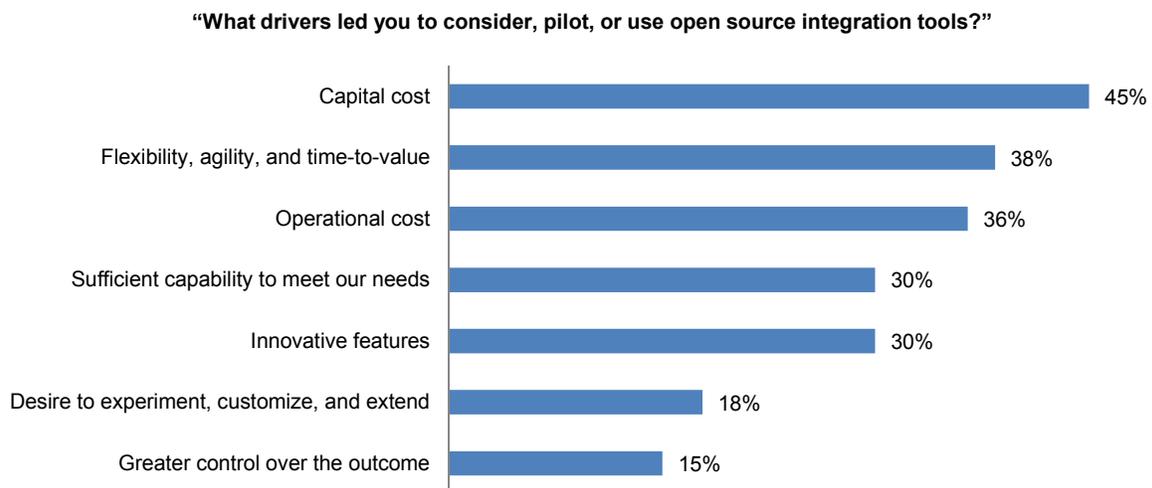
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economic environment has forced enterprises to seek out ever more affordable options, open source integration software has benefited.

Flexibility generally means the ability to use the software in a variety of configurations, unconstrained by licensing costs. Deploying multiple open source integration servers, in this case, would cost less than the same number of conventionally licensed servers. Flexibility also refers to the ability of the customer to access the product's source code for purposes of troubleshooting, testing, tuning, and integrating it with other software and tools. Conventionally licensed integration software does not offer this benefit.

Figure 2
Affordability And Flexibility Are Traditional Drivers

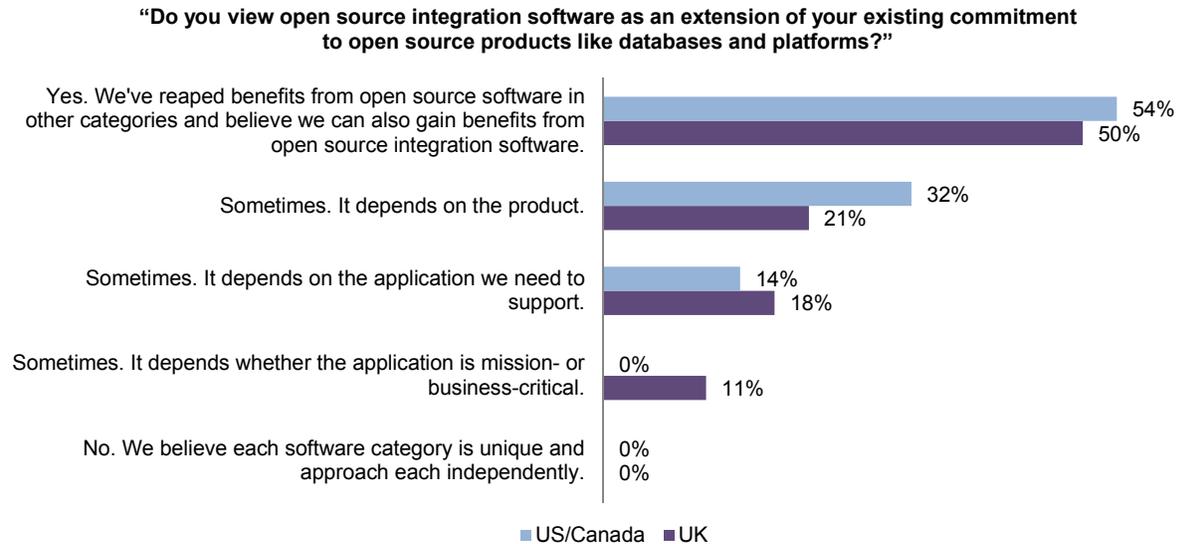


Base: 70 application development and enterprise architecture personnel considering, piloting, or using open source tools
(multiple responses accepted)

Source: Q4 2011 Global Integration Online Survey, Forrester Research, Inc.

Is Open Source Integration Next In Line For Open Source Adoption?

In addition to the traditional drivers of cost and flexibility, Forrester's recent research suggests that, as the general acceptance of open source software has increased, companies are now more likely to consider an open source option for their integration needs. More than half of respondents believe that their experience with other open source software categories — such as Linux distributions, web servers, databases, and Java servers — will translate well to integration software. Some are more cautious and believe that the open source benefits depend on the specific product or application supported. These are likely the customers with either deep experience with open source software or requirements that are more difficult to meet. None of the respondents believe that each software category is entirely unique and meant to be approached independently — signaling that the more mainstream open source software becomes, the more open source integration will benefit.

Figure 3**Open Source Software Is Mainstream On Both Sides Of The Atlantic**

Base: 56 IT decision-makers, half in North America and half in the UK

Source: A commissioned study conducted by Forrester Consulting on behalf of Red Hat, July 2012

Worries About Product Support, Skills, And Security Hinder Adoption

The biggest concern about open source integration software is the availability of product support. This is a common concern about open source software in general, and as integration software is one of the newer open source categories to reach mainstream use, this concern makes sense. While support is a significant worry, an increasing number of vendors do provide support contracts for open source integration products. In some cases, third-party vendors also provide formal support contracts to customers who want them.

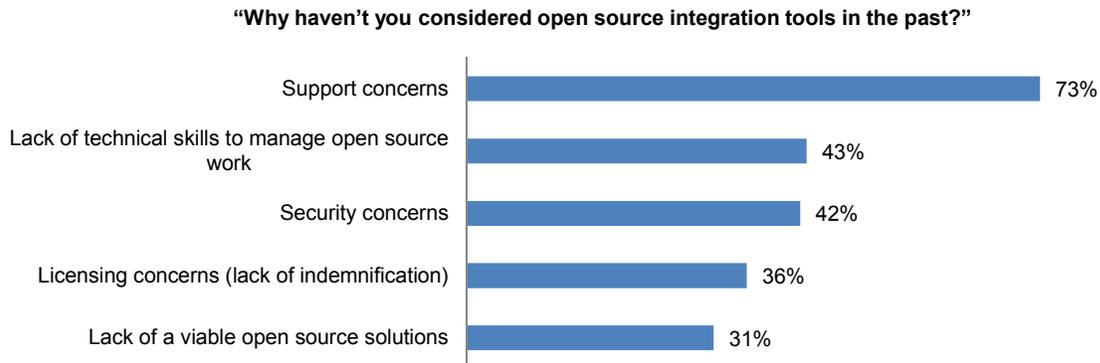
The next two concerns — security and the availability of technical skills — are also associated with open source software in general. At one time, they were huge customer issues, but concern about talent availability and security has moderated in recent years. In our survey, less than half of respondents were worried about these issues when considering open source integration software.

Customers require technical talent to put any middleware to use, and open source integration software is no exception. Some firms have employees and/or access to consultants who can fill their technical needs, but some do not. Generally, the more widely used an open source product is, the greater the availability of technical talent to configure, tune, and operate it. This concern has more to do with the internal capabilities of the buyer than concerns over product support; as such, it can present a challenge for open source integration vendors.

Security concerns reflect the fact that the software's source code is freely available, and so in theory is vulnerable to hackers who can download the code and easily figure out how to break through the product's security protections. However, Forrester contends that this is a misperception on the part of today's buyers, as numerous security features are built into today's open source integration solutions. For example, a Forrester Wave™ evaluation of ESBs found that the security of open source integration solutions compared favorably with their commercial counterparts.¹

In summary, while these concerns are worth noting, they are not significant enough to prevent high interest in open source integration software over coming years.

Figure 4
Nearly Three-Quarters Cite Concerns Over Product Support



Base: 121 application development and enterprise architecture personnel
(multiple responses accepted)

Source: Q4 2011 Global Integration Online Survey, Forrester Research, Inc.

Pragmatism Is Driving The Increasing Usage Of Open Source Integration Software

Despite the aforementioned concerns over open source integration software, our research indicates a trend of increasing usage. This can partially be explained by the pragmatic approach buyers are taking to this type of software: they’re plugging it into their business where it makes sense and holding back where it doesn’t.

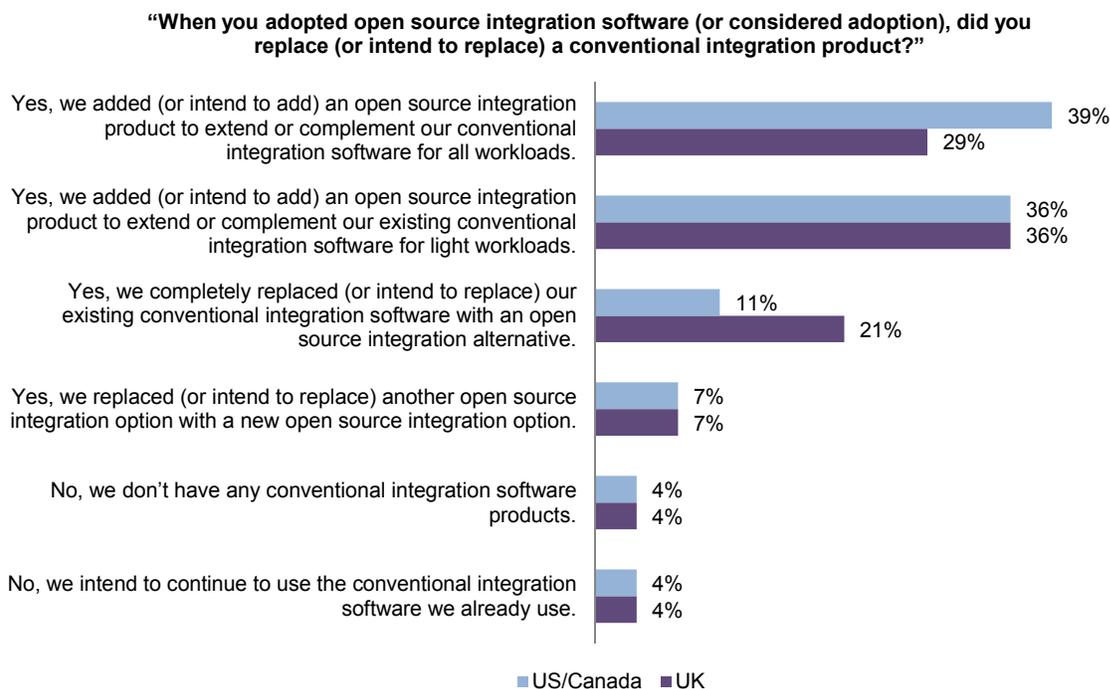
Overall, only 16% said they’d replaced *all* of their existing integration software with an open source alternative; the most bullish figures came out of the UK (21% would, compared with just 11% in North America). Compare this figure to the 70% of respondents who use open source integration software to complement or extend the conventional integration software they already own. Among this majority group, about half use open source integration software for *light* workloads only, while the other half use the software for any of their requirements — including more critical workloads.

- **Light workloads include mundane but important integration tasks.** Most firms maintain thousands of integration links, many of which are neither challenging to build nor mission-critical. Examples include simple application integrations carried out using FTP, departmental process flows, and intranet applications providing access to policy documents. Open source integration software is of obvious benefit for these tasks, because solving them isn’t worth a large software investment.
- **All/critical workload use is a measure of product maturity.** Respondents who have adopted open source integration software for all of their integration tasks, including mission-critical workloads, give a big vote of confidence to the category. Integration tasks that are either complex (such as mapping multiple information sources or aggregating data) or mission-critical (such as providing real-time pricing and inventory information to an eCommerce site, shipping transactions to travel reservation systems, and similar tasks)

require products with substantial reliability, quality, security, and manageability traits. Open source integration software now passes the mission-critical test for some respondents.

Figure 5

Open Source Integration Products Predominantly Extend Or Complement Conventional Software



Base: 56 IT decision-makers, half in North America and half in the UK
(percentages do not total 100 because of rounding)

Source: A commissioned study conducted by Forrester Consulting on behalf of Red Hat, July 2012

Buyer Pragmatism Extends To Types Of Integration

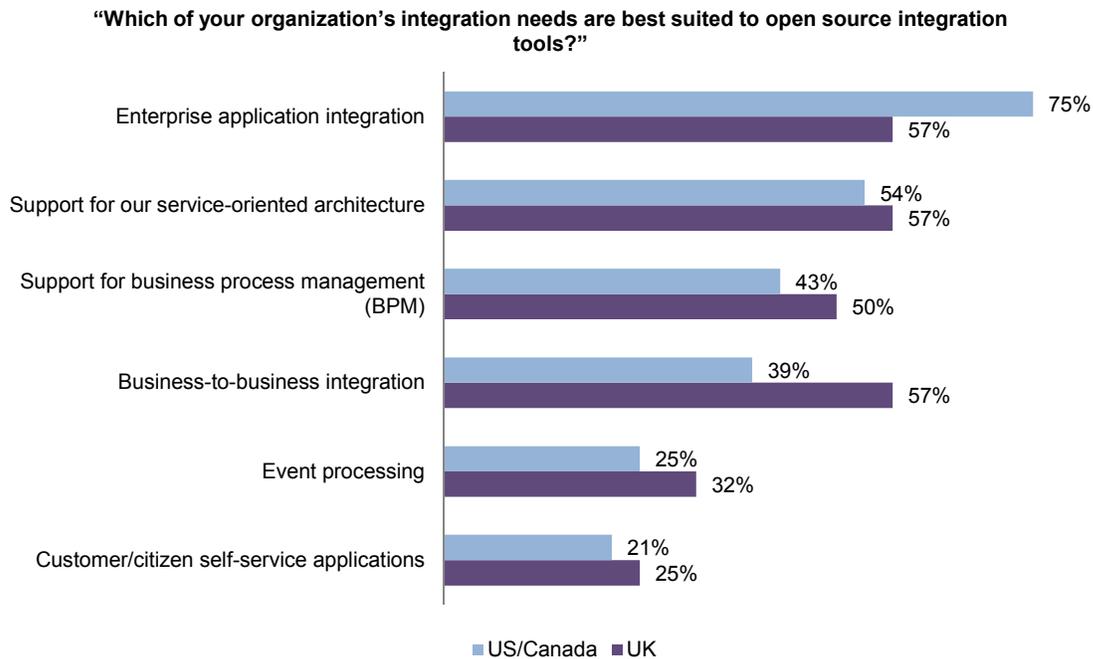
The buyer pragmatism exhibited in usage also extends to the integration scenarios for which types of customers adopt open source software. Top of the list by far is enterprise application integration (EAI). Given buyers' security concerns, EAI represents a safe choice, as it almost always runs inside pre-existing security protections, and in many cases is very well understood. Again, the enterprise buyer is pragmatically plugging open source integration into their business where it makes sense and holding back where it doesn't.

Second on the list is the use of open source integration software to support existing service-oriented architecture (SOA) strategies. In this role, customers are simply fitting open source integration into an often mature integration architecture based on SOAP web services. This provides yet another example of the pragmatism of open source integration buyers.

However, not all customers are playing it safe with open source integration software by deploying it only inside their firewalls. Almost half of respondents using such software have deployed it for business-to-business (B2B) scenarios — again, UK respondents tend to be more bullish (57%). These B2B scenarios tend to be much more

complex than EAI or even SOA, as they involve greater security and are usually more sensitive to performance concerns.

Figure 6
EAI And SOA Are The Most Popular Integration Scenarios



Base: 56 IT decision-makers, half in North America and half in the UK
(multiple responses accepted)

Source: A commissioned study conducted by Forrester Consulting on behalf of Red Hat, July 2012

What It Means: A Period Of Growth For Open Source Integration Software

Open source integration software is on its way to substantial adoption inside enterprises for both simple/light scenarios and for more challenging uses. The base finding that only 40% of customers are *not* considering open source software was lower than Forrester expected for this category. Why? The category is fairly new as compared to more mature open source categories.

We also observe a bit of “open source religion” — the idea that all open source software is better — in the findings that promote the adoption of open source integration. This faith is rooted in experience and leads enterprises to try open source alternatives to conventional software products in new software categories. Open source integration seems to benefit from this effect as well.

Most importantly, open source integration software is producing results. Particularly compelling are our findings on the types of applications respondents plan to use open source integration software to support. The number of respondents who see open source integration software as useful for B2B integrations was much higher than we had expected. B2B applications have stringent security, reliability, and integrity requirements, which heretofore had

been the province of vendors providing premium-priced products and services. This trend, among others, reveals a growth period for open source integration software.

Methodology

This Technology Adoption Profile was commissioned by Red Hat. To create this profile, Forrester leveraged its Q4 2011 Global Integration Online Survey and the February 6, 2012, “Open Source And Cloud-Based Integration Trends” Forrester report. Forrester Consulting supplemented this data with custom survey questions asked of 56 senior-level IT decision-makers in the US, Canada, and the UK who had either adopted or were seriously considering adopting open source integration software. The auxiliary survey was conducted in July 2012. For more information on Forrester’s data panel and Business Technology Consulting services, visit <http://www.forrester.com>.

Appendix A: Endnotes

¹For details, refer to the “security” criterion and its subcriteria in the Excel spreadsheet that contains the Forrester Wave model that evaluated ESBs. Source: “The Forrester Wave™: Enterprise Service Bus, Q2 2011,” Forrester Research, Inc., April 25, 2011.

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