



2007 Inter-Open Customer Forum Series Summary Report

Executive Summary

The Open Solutions Alliance sponsored a series of five customer forums, held in the United States and in Europe, in 2007. The purpose of the series was to facilitate discussion among IT professionals and senior executives who are leveraging open-source solutions within their respective organizations. The forums provided an excellent opportunity for customers to hear and share best practices and for the OSA to learn what the most important issues are among open source customers, leading vendors and open solutions developers.

This document details the key findings from the forums, informed by more than 100 customers, integrators and vendors who attended.

These key findings confirm that commercial open-source solutions are being broadly adopted and vendors are doing a good job of driving their maturity, although some challenges remain that are getting in the way of more rapid adoption. Among them, interoperability stands out as a key issue. The vendor community needs to do more to resolve customer and channel concerns in this area, and the OSA is well positioned to facilitate their resolution. Consequently, the OSA plans to focus its efforts in 2008 on addressing the interoperability issues deemed most important by the forum attendees. Moreover, the OSA will engage more aggressively with the vendor community on interoperability issues, and work with integrators and distributors in recommending solutions for them to adopt based on their interoperability characteristics.

About the OSA's Inter-Open Customer Forum Series

The forums were held in Minneapolis, San Francisco, Barcelona (Spain), Philadelphia and Boston between the months of July and November, 2007. OSA members based in those respective cities hosted and managed each event.

Each forum event was interactive in nature, with short presentations designed to spur open discussion and free exchange of ideas. This content was consistent across all five events, allowing us to compare and contrast the subsequent discussion and feedback. All content has been published to the OSA community site and can be found here: <http://tinyurl.com/2884eh>

Attendees represented a broad cross section of industries and use cases. Both public and private sectors, both large and small organizations, both business and technical managers, and both early adopters and “mainstream” users were represented. Moreover, while these events were marketed specifically to customers, integrators and developers were also in attendance, offering good perspectives on the issues of delivering and supporting OSS solutions.

Common Themes

Throughout these forums, several common themes emerged. The OSA intends to use these findings to focus its activities going forward, including new interoperability initiatives intended to deliver practical solutions to issues raised.

Why Customers Adopt OSS Solutions

Customers adopt open-source solutions for a variety of reasons. Of note, however, is not only the important reasons why customers adopt, but also reasons that the industry widely believes are important that customers in our forum events said were not important to them.

Cost

By far, the most important reason given for adopting open source was cost. Specifically, they perceive open source as having much lower up-front acquisition cost, allowing them to circumvent the high license fees of many proprietary vendors. However, many expressed concern that support and services costs would be higher, and consequently, over time, the total cost of ownership would not be significantly different. This concern is offset by the belief that the vendor community would drive the maturity of open source solutions to the point where they became more turnkey and easier to support and maintain.

Ability to Customize

Surprisingly few customers value open source because they can change the code to meet their requirements. Most instead preferred the code to meet their requirements as-is, so they could minimize support and development costs. If

custom features were needed, customers were more likely to develop their own applications from scratch on top of as-is middleware instead of changing an existing application. For example, financial services companies frequently build their own trading applications. One attendee, Sunoco (a leading oil and gas vendor), plans to write their own fluid dynamics engine from scratch to use within a pipeline management application, instead of trying to use an off the shelf product as a starting point.

The exceptions were those customers in specialized industries or with slightly different business requirements such that existing code formed a strong basis. For example, financial services companies (e.g. Vanguard) will change open-source middleware code such as Apache and Tomcat to meet advanced performance and availability requirements. Some universities (e.g. MNSCU, Minnesota State Colleges and Universities) will change open-source curriculum-management products such as Moodle to fit specific requirements, such as MNSCU's operations across 26 locations in Minnesota. However these were by far the exception rather than the rule.

Avoiding Lock-In

We asked customers about proprietary lock-in, and whether open source helped them avoid this. Few want to change code on their own, and would rather deploy and maintain the product as-is. Lock-in was a concern from a support and relationship perspective (if the vendor was no longer supporting them, could they ask another party to help them), than a feature/function perspective.

Improved Vendor Relationships

However, customers welcome working with open-source vendors for other reasons. First, an open-source product was an indicator, in many customers' minds, that the vendor will be willing to engage in a more open and collaborative relationship with the customer. Since their code is open, they are presumably more willing to be open and honest in their business dealings as well. This seemed to be a reaction to some proprietary vendors' pushy tactics more than anything else. Those customers usually found that commercial open-source vendors and their developer communities are more responsive to their needs and willing to engage with them in a peer-to-peer collaboration. Second, wherever there was a doubt about the vendor's long-term viability and ability to support them, customers perceived open source as a form of escrow — worst case, if the vendor is no longer in business, the customer could still maintain themselves or find an integrator to do this.

Open Source Definition

We asked customers how important was "Open Source" (i.e. the Open Source Definition and OSI-compliant licenses). Most were sanguine about the topic,

saying they value having access to the source code for reasons mentioned above, but other elements of the OSD were not part of their buying criteria. Vendors and integrators, however, were more likely to say this was important. Redistribution obligations, for example, were deemed an important part of business models that relied on broad adoption through free access while still managing the competition. Vendors valued the GPL in particular, indicating that its reciprocal clauses amounted to a “poison pill” against other commercial entities profiting from their work without “giving back” to the community. Most dual-license models include the GPL plus a commercial license, with other commercial entities then more willing to negotiate a commercial license with the vendor in order to avoid the GPL’s reciprocal obligations. Customers are aware of this dynamic, but ultimately see this as a means to an end. Whatever business models and licensing practices ultimately deliver better and more useable products at low cost will be more likely to be the beneficiaries of their IT budgets.

However, many customers also pointed out that they were concerned by the volume of philosophical debates raging within the industry regarding what it means to be “open source,” and whether this distracted vendors from the business of solving customer needs. This was most apparent in the context of interoperability with Microsoft. This is a very common interoperability requirement with customers (over 50% said they needed to make an open-source solution run on Windows or integrate with other Microsoft products such as IIS, ActiveDirectory or Sharepoint), and they are concerned that the industry is not doing enough to ensure such interoperability.

Functionality Compared to Proprietary Alternatives

We asked customers how well commercial open-source products match up with proprietary competition in terms of product functionality. Most responded positively, saying that this was the case, especially for operating systems and middleware. Linux was deemed a very mature operating system, with a complete ecosystem of development, management and operations tools needed for enterprise use. Similarly, more mature middleware applications such as Apache, JBoss, MySQL and Postgres, and management products such as Groundwork and Hyperic were deemed suitable for their business requirements.

At this middleware layer, most customers felt that proprietary alternatives have certain advanced features that the open source vendors lack, however those advanced features are needed by only a small minority of high-end use cases. In most cases, the open-source alternative was “good enough,” and the cost benefits outweighed whatever capabilities were lacking. This was also true higher up the “stack” in the applications space. Given that the open-source product has existed for a few years and gone through multiple releases, the core feature set was frequently deemed “good enough,” with certain advanced features missing but needed by a minority of customers.

Availability of Source Code

We asked customers about the importance of source code availability in choosing which solution to procure. While most viewed the availability of source positively, for the reasons mentioned above, it was not among the top criteria. The top criteria were (1) total cost of ownership, (2) whether the solution meets requirements and solve business problems, (3) the vendor's ability to support them and (4) the ability to interoperate with their existing environment. All of these being equal, then the typical customer would be more willing to adopt the open solution for the reasons mentioned above.

Of these four criteria in regards to open-source solutions, customers generally voiced satisfaction with the first two, but expressed some concern regarding support and maintenance, and even more concern regarding interoperability.

Interoperability

Interoperability rose to the top as the biggest issue among open source users, both as an issue in implementation and barrier to adoption. Open source's greatest asset — the ability to tap into the innovative talents of organizations and individuals worldwide — can also be an end customer's greatest frustration, as in "how do I get all of this to work together?" This included a broad array of issues, both technical and non-technical. Many customers felt that commercial open-source vendors have addressed these within the scope of their respective point solutions, but have not address the many issues encountered in the typical enterprise nearly as well as our larger, consolidated proprietary competitors.

Common Interoperability Concerns

Commonly raised interoperability issues included the following.

1. **Single signon** centralized identity management
2. **Data integration** including both real-time data synchronization and batch transfer
3. **Portability** Solutions should work across platforms, notably various Linux distributions and Windows.
4. **UI customization and portal integration** Integrated solutions should have a consistent look and feel.
5. **Content management integration** Integrated solutions that are sharing content should easily integrate with the same back-end content repository.

This was especially true for “Web 2.0” use cases, where collaboration functionality is surfaced through multiple business applications.

6. **Component compatibility** Ensuring that a given version of one component (e.g. web server, database, etc) works with a given version of another component, when the communities behind each have their own release trains and pay inconsistent attention to interoperability issues, while vendors’ support SLAs cover a small subset of the overall compatibility matrix.

Large Enterprises

Additionally, larger enterprises also consistently raised the following issues:

1. **Business process orchestration** Being able to integrate solutions into an end-to-end business process, using SOA-style best practices. Most frequently, these customers look for modular architectures with loosely coupled APIs such as web services, and expressed surprise at how many applications don’t include this.
2. **Production management and monitoring** Being able to integrate the production management and monitoring of open solutions into the same management frameworks used to manage other IT applications and infrastructure.

Business Issues related to Multi-Vendor Solutions

Finally, the following issues were also frequently raised. While not directly technical in nature, these operational or business issues are nonetheless important to customers adopting OSS solutions.

1. **How to support integrated solutions** that were delivered by multiple vendors. Some customers raised concerns about “one throat to choke” — who to call if each vendor owns only part of the solution. Moreover very few integrators have been effective in this role. Other customers were comfortable with self-support, but raised concerns about the quality of documentation. What is the motivation for an open source developer to write user-friendly documentation? Commercial vendors do a better job of documenting, but focus more on their core features and less on deployment and interoperability.
2. **How to project-manage** the deployment and delivery of integrated solutions involving multiple vendors. “Herding cats” was a phrase frequently heard during our forums, as customers and integrators expressed frustration with ensuring that vendor resources remain engaged

with the customer and with each other during the implementation of a customer's integrated solution.

3. **How to ensure license and IP compliance** of a solution that includes source code from multiple sources. This was notably raised as an issue related to conforming to obligations of reciprocal licenses like the GPL. Surprisingly few customers were concerned about patent disputes, believing that it is vendors, not customers, who would be targeted by patent trolls.

Integrators

Numerous integrators and consultants also attended the forum series. Their issues were similar to those of end customers, with some notable differences.

Ability to Customize

First, integrators are more likely to change code to suit unique customer needs, and therefore are particularly drawn to open source for this reason. The customer, in this case, views the integrator as their vendor, and all of their expectations regarding support and quality of vendor relationship then fall upon the integrator. Integrators, however, are typically not geared to provide long-term support and maintenance in the same way that a vendor might be. Their business model is to complete a project and move on, and they prefer vendors to back them up with ongoing support and maintenance.

The Support Challenge

However, changing code often invalidates the vendor's support SLA, which is based on the premise of supporting and maintaining exactly the code that was delivered by its engineering team. Even if integrators "give back" their code to the vendor, many vendors are slow to incorporate into their products and offer a support SLA for it, and thus the integrator had to assume this responsibility. Consequently, while integrators can more readily change open-source code than they could a proprietary product, many felt that ongoing support was a tax upon their business. They were more likely to work with or recommend products that were highly modular or "pluggable" in nature, so that their changes could be isolated while allowing the vendor to continue supporting the rest of the product.

Interoperability Concerns

Open-source channel partners are also clamoring for interoperability. Many expressed that project durations were lengthened and margins reduced by making up for the lack of interoperability in many open source products. They prefer not to take on the headache themselves. As a result, they were more

likely to recommend solutions that exhibited superior modularity and interoperability.

Adoption Patterns

Consistently, we found that large enterprises are the first to recognize value in open source because they have more IT resources to manage support, maintenance and integration issues themselves. The path into the small and medium businesses depends on ensuring that open-source products are already maintainable and interoperable out of the box. Several attendees that classified themselves as “SMB” expressed disappointment that some solutions had as many rough edges as they did, while also expressing satisfaction with more mature offerings such as Apache because they were not only free, but easy to deploy, integrate and manage. Therefore, they characterized a turnkey experience and low cost of ongoing ownership, not features, as their main criteria for adopting any given solution.

In all except one of the five forum events, we surveyed customers on what open-source products they had adopted. Consistently, open-source operating systems and infrastructure were prevalent, but open-source applications are starting to make inroads. Specifically:

- Linux: Approx 70% used Linux to run their open-source solutions, with Red Hat being the majority. Most of the rest ran their open-source solutions on Windows.
- Apache was used as the web server of choice by nearly all attendees. Windows users were split between Apache and IIS.
- Databases: About 50% used open-source databases, equally divided between MySQL and Postgres. Hibernate was a frequently used data access component. Even Windows users were more likely to use an open-source database with their open-source solutions.
- Development Tools: Nearly all attendees who are doing custom development used Eclipse for this purpose.
- Moodle and Sakai, open-source curriculum-management solutions, were frequently used among universities.
- Drupal and Joomla, open-source web content management solutions, were frequently used by nonprofits, including state and local governments.
- Languages / Containers: PHP is the most commonly used of all scripting languages, with about 50% of customers who adopted open-source solutions running them in PHP environments. Moreover PHP users were

more likely also to use other components in the LAMP stack (Linux, Apache, MySQL). However, we noted concerns from larger enterprises regarding its scalability and performance. Those were more likely to develop or use Java applications, deployed in Tomcat or JBoss.

- Some desktop applications like Firefox and Thunderbird are being adopted, but more as a matter of personal end-user preference than a matter of IT policy. IT organizations were willing to support users who chose to use them. Twenty percent of customers who adopted open source indicated this.
- Alfresco, JasperSoft and SugarCRM were the most often mentioned applications in use, with approximately 8% of attendees expressing that they are using or have evaluated each of these products. However all indicated that these products needed to be integrated with other applications in their environment and that this required more services and development than initially expected.
- Nagios was mentioned as an open-source monitoring tool being used by three customers.

There were numerous attendees (approx 25%) who had not adopted open source at all, and attended the event to find out more about it. We asked them why they hadn't adopted yet, and the most common responses included:

- Concerned about / don't know enough about licensing and IP issues
- Don't know how to get support and don't have sufficient in-house skills
- Want to see more evidence of others being successful before they attempt themselves

Interestingly, those who had adopted would be quick to respond, saying not to worry about the licensing and IP issues (these are issues for vendors and integrators, less so for customers) and offered to recommend commercial vendors who could provide support and services.

The OSA's Next Steps

The forums highlighted several key areas of action for the OSA, which will come into sharper focus in 2008.

Clearly, interoperability is a pain point. Moreover, interoperability is a broad spectrum of issues, and no single organization can "boil the ocean" and solve all of them. Fortunately, consistent feedback heard through the forum series will help the OSA focus on the most important issues. The OSA plans to address these issues by continuing to work on the Common Customer View (CCV) and

similar initiatives. Through hands-on effort, the OSA membership will experiment and learn about different approaches, and make recommendations based on this research. Moreover, we shall resume our roadmap of interoperability proposals, consisting of white papers and documented best practices that reflect the priorities voiced during these forums. And finally, we shall continue our practice of open sourcing any interoperability components we author, and make them available on Sourceforge under permissive OSI-approved licenses.

We heard consistent feedback that customers will be more likely to purchase, and channel partners are more likely to recommend, those solutions that are designed to be more interoperable. As a result, the OSA plans to be more aggressive in positioning interoperability as a unique value proposition, and attracting distributors and channel partners to its members' products that conform to interoperability requirements that customers have consistently told us are important. This will include the following:

- Encouraging ISVs, starting with but not limited to its own membership, to design interoperability into their products and adopt our interoperability proposals.
- Encouraging integrators and distributors to consult with the OSA on interoperability issues and guidance regarding which solutions to adopt. Long term, we may adopt an interoperability rating system that would rate solutions based on how interoperable they are. Near term, we are informally engaging with distributors regarding those solutions with which the OSA membership and its customers have had positive interoperability experiences.
- Continuing to evangelize the virtues of collaboration among the vendor community, to come together to address interoperability issues in their respective products. Moreover, we shall evangelize the spirit of open and transparent collaboration with customers and integrators as well — Many approach open source vendors looking for more positive relationships than they have had with proprietary vendors.

Conclusions

Clearly, interoperability is a key pain point for many customers. Most consider interoperability to be a “core feature” of any solution they adopt. Unfortunately many commercial open source ISVs have not developed their products this way, choosing to focus on the functionality of their respective point solutions before investing in interoperability with other solutions. This may make sense from a pure product development and release management perspective, but it results in

customers not being able to adopt as quickly, hindering the vendors' ability to drive revenue.

Customers don't want a point solution. They need something that fits well into an end-to-end solution and the rest of their environment, and they make purchase decisions based on this. Consequently, vendors must treat interoperability as a core feature, and include it in "version one" of their respective products, instead of treating it as a future roadmap item.

Moreover, interoperability is a collective problem, and collective action is the best way to address it. Through our customer forum series, we heard consistently from customers and integrators that this is a problem that needs solving. What better model for collective action than open source, applied to the universe of business solutions? This was the founding premise of the OSA. Through collective action, the OSA intends to accomplish more than vendors can accomplish independently. The results of our customer forum series confirm our founding premise, and we consider attendees' feedback to be a clear call to action to work together more effectively and address interoperability concerns.