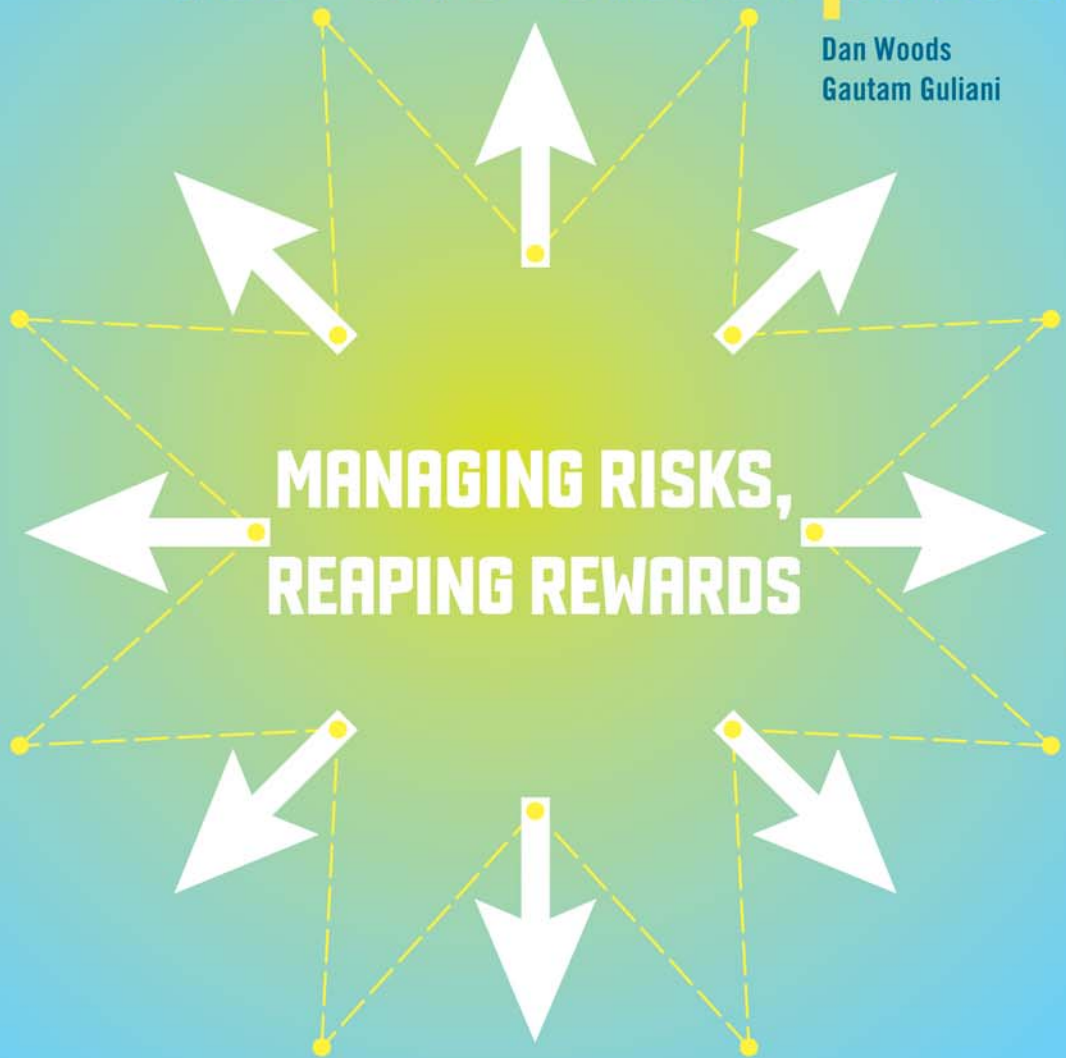


open source for the enterprise

Dan Woods
Gautam Guliani



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Support Models for Open Source

At this point in the book, you might have the impression that open source is something you must learn to do yourself. Indeed, open source comes with many more responsibilities than most commercial software, but it also comes with many more opportunities—if you have the skills to take advantage of them.

Entrepreneurs and venture capitalists have noticed that the number of people who can benefit from open source is far larger than the number of people who have the skills to do so. While this book argues that the best way to take advantage of open source is to embark on a program of institutional skill building, startups, systems integrators, and software vendors are coming to market with different offers of support. Moreover, a growing number of consulting services are designed to close the skills gap required to overcome the lack of productization and bring the value of open source to a wider audience.

From an IT department's perspective, perhaps the most attractive offer would be a fully integrated open source package that is configured to meet the department's precise needs. Do not hold your breath waiting for such an offer. To make a business viable, open source support providers, like all other service providers, will have to create one offer that can be delivered at an attractive price to the largest number of customers. This chapter will examine the offers that are available on the market, their advantages and disadvantages, and how they might appeal to IT departments along the continuum from beginner to expert.

Open Source Support Offers

The whole idea of open source support raises the following question: what does it mean to have support for any sort of software? For commercial vendors, support is stated as one thing, but IT departments purchase support for reasons other than those stated in the support agreements.

The Generic Commercial Software Support Offer

For the most part, commercial support agreements provide access to a team of support professionals who help ensure that the software you purchased works the way it is supposed to work. Another important aspect of support is access to a steady stream of software updates and bug fixes. Vendors often provide different levels of support, with more services or faster turnaround in exchange for a higher fee. Support can come in the form of a database of information about the product, or collections of technical notes about problems other customers have had and ways to solve them. However, support usually means an IT department can call a company, report a problem, and get help resolving it. IT departments that purchase commercial software usually pay from 15% to 25% of the total licensing fee per year for access to support services.

Software vendors that provide support are generally careful about defining what they will provide. Support is usually limited to software of a certain age, and it does not necessarily cover older versions. Part of the reason for this is to encourage upgrades to newer software. Another motivation, however, is the expense of keeping a team up-to-date on many different versions. Software companies also limit support to certain versions of operating systems and databases. You might be required to install specific patch levels to be eligible for support. It is not uncommon for a support call to begin with confirmation that the software you are running meets all the requirements for support services.

Then, of course, there is the issue of how the software should behave. Some software includes exhaustive documentation that specifies its behavior in all situations, but most does not. When software behavior is not clearly defined, software vendors and IT departments frequently argue about whether the behavior amounts to a bug that must be fixed or a feature that is just fine. If a bug is indeed found, it might be weeks or months before it is resolved.

As a practical matter, however, what IT departments are really buying when they pay for support are not the benefits mentioned so far, but rather, the peace of mind that comes with knowing someone is being paid money to be there to solve problems. Support is a form of insurance. For a commercial product, support means an IT department has one throat to choke.

Evaluating Open Source Support Providers

Supporting open source software is an IT department's responsibility. There is no one else to yell at or to blame. There is only the IT department and the source code. This can be a frightening prospect, especially for IT departments at the beginner or intermediate level. For all these reasons, as use of open source grows to areas that are increasingly mission critical, more IT departments will seek out support.

Commercial open source support providers cannot get around the basic economics of their business. They must answer the same questions as traditional support providers, and the way they answer these questions, and deliver and price their services, will ultimately determine whether they succeed. In addition, they have unique challenges, such as supporting software they did not write, which will be more or less difficult depending on the vagaries of each open source project. In the following analysis of different open source support models, we will examine how open source support providers answer these questions:

- What is being supported?
- What is the definition of proper software behavior?
- What operating system, database, and related software configurations are supported?
- How will support services such as upgrades, patches, and hot lines be provided?
- How much will support cost?

What Kind of Open Source Will Be Supported?

Given the vast range of quality in open source programs, it is clear that some are practically impossible to support, and others are fairly easy.

Emerging open source projects that are evolving rapidly will never be included in a generic open source support model. Companies will be able to find support for such software, if they require it, but the support likely will come in the form of a consulting relationship with people involved in the project.

At the other end of the spectrum are the most mature products that have become commodities. Linux, Apache, and MySQL are robust, stable products. For the most popular configurations, they work well, and most open source support provided today focuses on these products. The question for this sort of open source is not whether it can be supported, but how much that support is really needed. For the most common uses, this sort of open source software just works. But then again, most commercial software also works great for its intended purpose, yet companies still feel they need support. Support for stable software is clearly something organizations want and are willing to pay for, and companies offering commercial open source support planning meet that need as one of their first priorities.

What about the open source software in between the fast-moving early projects and the stable commodity products? This software is excellent for certain uses, but it might not be appropriate in lots of different configurations. The definition of what this software does is not as poor as that for emerging products and not as clear as that for commodity products. It is this category of software that represents a large amount of value and a large amount of risk for different sorts of commercial open source support companies described later.

Chet Kapoor, an executive at BEA Systems, Inc., has studied how corporations use open source and has analyzed how it is likely to be supported. In Kapoor's view, a large number of IT departments have been using open source for development and non-mission-critical applications for many years. Now, many more of them are starting to use open source for production, which is going to create a large opportunity for support services.

Kapoor's view is that open source projects, like other technologies, will proceed through the following stages:

New

When the project is just introduced

Adoption

When the project is starting to become popular

Standardized

When the project starts to work in a uniform way, with increasing productization

Commoditized

When the project is absorbed into the technology stack that supports computing

Kapoor thinks the big opportunity for support providers comes when an open source project has reached the standardized stage. This is when the software is generally applicable enough for a service provider to make money supporting it.

Now that you're armed with a clear understanding of the types of open source software that can be supported commercially, let's turn to the different types of support services being offered.

Subscriptions

The earliest support for open source came in the form of a subscription. Companies including Red Hat, Mandrake, and SuSE collected the public distribution of Linux and other related programs into a neat package that came with regular updates. For an added fee, users could upgrade these subscriptions to include support provided by technical experts over the phone, just like with commercial software. Red Hat has been especially aggressive in terms of increasing the breadth of the software offered through its subscription and supported by its technical support services.

Now, what sort of support do you get with these subscription products? Mostly, you get support for proper product installation and configuration, plus limited support for software operation. Interested in doing some kernel hacking? Subscription support is not likely to help. What if one of the APIs on your content management product is behaving strangely? Subscription support will probably do no more than point you to the web site for that content management product.

Subscription support provides a valuable service by collecting a useful bundle of stable software into one package, and making sure that all the integration or compatibility problems are resolved. Custom installation scripts and documentation make up for lack of productization, and can help an IT department overcome the skills gap. Subscription bundles usually employ stable software at or close to the operating-system level, which doesn't require a lot of support.

Subscription support has been around for several years. While the amount of support provided is low, the price is also low. This is not the focus of the companies that were just coming out of the gate at the beginning of 2005.

Certified bundles

New companies such as SourceLabs (<http://www.sourcelabs.com/>), SpikeSource (<http://www.spikesource.com/>), and Wild Open Source (<http://www.wildopensource.com/>) are reaching beyond the realm of commodity software and are providing bundles designed to meet the needs of narrower but still common use cases. SourceLabs, for example, is providing certified bundles of commonly used software that works together, such as Linux, Apache, PHP, and MySQL. SpikeSource is providing another sort of certified bundle, and Wild Open Source will customize a Linux distribution for use in an embedded system or high-performance context, and then support the customized distribution.

As with the subscription model, these companies package up a collection of software, resolve problems concerning interdependencies, and make up for some of the lack of productization by creating easy-to-use installation scripts and providing documentation. However, companies supporting certified bundles include a much wider variety of software and intend to support many different bundles aimed at different audiences. The bundles might be tested for reliability and be configured for high-performance operation.

For example, SpikeSource offers a certified bundle that contains 50 products, including Apache, JBoss, MySQL, Tomcat, Axis, Hibernate, and PHP, which are certified to run several different installations of Linux. Other companies such as SourceLabs offer other sorts of certified bundles.

The goal of the companies offering support for certified bundles is to become the trusted provider for a collection of software that becomes the foundation of custom development. Companies offering certified bundles will be seeking to help independent software companies who might want to deliver their commercial products on an open source platform. Certified-bundle companies might also choose to offer support for the infrastructure of custom open source projects created by systems integrators.

The obvious challenge for companies offering certified bundles is to define bundles that are attractive to the greatest number of potential customers. However, another difficult challenge is to narrow their offerings so that support can be provided. As we mentioned earlier, at every opportunity commercial software vendors choose to limit the scope of supported configurations as much as possible. How will certified bundles be limited? What versions of what software products will be supported? How will the fast-moving nature of some open source projects be reconciled with the need for a stable configuration to support? Most of all, certified-bundle companies must determine what price they can charge for support, and whether this price will support a service organization. These are not easy questions to answer. The right answers will vary from bundle to bundle, and they will be found only through trial and error.

As the support market matures, competition will increase. In addition, unlike with commercial software, in which only one company can provide support for a given product, multiple vendors will be selling support services for the same open source software. Not only will this drive down the cost of support, but also, because the vendors are competing on service it might result in a new standard for the quality of support offered. This raises the following question: will these bundles become products with a new form of vendor lock-in, or will an organization be able to switch from one open source support provider to another? The answer depends in part on the decisions your company makes moving forward.

Custom enhancements

A close relative of the sort of custom distributions we mentioned in the previous section are custom enhancements to open source projects. These are generally created and then supported by experts. Programmers from Sony Pictures Imageworks, Industrial Light & Magic, and Rhythm & Hues participated in the development of Film Gimp, an enhanced version of the open source Gimp image-manipulation program, to make the program more appropriate for certain manipulations used in movie production. Frequently, these enhancements are contributed to the original project. However, even if they are, companies might want to engage the experts who created them in an ongoing basis to support the enhancements.

Open Source–Based Products

A variety of independent software vendors have noticed the power of open source development, and a new breed of commercial software based entirely on open source is cropping up. Under this model, a software vendor creates a product based exclusively on new development, using open source projects as a foundation. The products are licensed in a variety of ways that do not conflict with open source licenses. These products frequently come with support for the entire configuration of open source used to create and run them.

Companies such as Gluecode (bought by IBM in May 2005) create application development platforms for IT using open source as a foundation. Other software companies such as Compiere and SugarCRM have open source versions, either as a marketing technique or as a vehicle around which to sell consulting services.

Consulting Services

When systems integrators create solutions based on open source, the service frequently includes continuing support for the open source configuration at the foundation of the solution.

When Is Commercial Open Source Support the Right Choice?

The models in the previous section provide different ways to bridge the skills gap between IT departments and open source software. This section examines the pros and cons of each support model for IT departments with different skill levels.

Using commercial open source support providers effectively requires many of the same skills IT departments use to evaluate any vendor. An IT department has to understand what kind of support it needs, whether the offered services meet those needs, and whether the company can provide the services when they are needed. However, open source support has different characteristics and provides new choices that IT departments are not used to making. Consider these differences:

- Support for most commercial products comes from one provider: the software vendor. With open source support, however, several vendors might be offering different types of support services.
- Pricing for support will be negotiated much more intensely with open source products than with commercial products. There is no benchmark based on licenses. Customers will be able to cut deals.
- Support offerings will have to be evaluated carefully to determine what services will be provided. Offers will range widely in terms of scope and quality. Some emerging companies might promise levels of support they cannot deliver.

- Support might be used for high-risk periods and dropped when a product is proven stable. After all, with commercial support, you have to pay for updates, but with open source, the stream of updates is always freely available.
- Support might be used as a protective measure while an IT department builds skills.

Companies offering commercial open source support are well aware of all these differences, and they will fashion their offers to provide significant levels of service to clients as well as to protect their position. In the end, these companies are betting that the additional service, convenience, and quality they provide will be of enduring value to their intended customers.

In the next section, we will take a look at some of the most common situations in which commercial open source support is attractive to IT departments.

When Use of Open Source Is Mission Critical

For an IT department, applications that are mission critical, or that have high-performance requirements, must have a high level of support. With open source, this means becoming an expert yourself, engaging a consultant to be available in some way, or using a commercial open source support provider. IT departments at all skill levels will use some combination of these choices. IT departments at the expert or advanced level might have the skills to support an open source product but might prefer to apply those employees to other projects. Expert companies might also want a 24/7 hotline available as part of their operational processes. As systems become less mission critical, the support needs drop and support becomes easier, because downtime is more acceptable.

The problem for mission-critical systems concerns matching the support services offered to the needs of the IT department. This is never easy, even with commercial software where support is offered up and down the stack.

When a Certified Bundle Solves an Important Problem

Certified bundles are collections of open source projects that are packaged by support providers and are tuned to operate optimally with each other for a certain purpose. The initial collections of these bundles are focused on core infrastructure, such as matched sets of complimentary software like the Linux operating system, the MySQL database, the JRun servlet engine, and the Apache Web Server. Where these bundles will go is not clear yet. It is possible that bundles could be created to help build portals, to provide email infrastructure, to support collaboration, and for other purposes. It is possible that these bundles could become the equivalent of supported products and be attractive to an IT department. The key question is whether the bundles will work to solve a problem. The initial bundles are focused on infrastructure and software development support. It remains to be seen at the time of this writing whether other sorts of bundles will emerge and succeed.

When a Consultant Creates a Custom Feature

IT departments often extend open source software to meet specific needs. Experts will do this themselves and will likely support the extensions themselves. IT departments at the beginner, intermediate, and advanced levels might engage consultants to extend open source and then retain relationships with them to support those extensions. This support might be needed even if the extension finds its way back into the main distribution of the original open source project.

Accelerating Implementation and Building Skills

Services from commercial open source support providers and consultants can be used to accelerate the creation of an open source infrastructure, and to build skills. Systems integrators and consultants offer advice and services to help create strategies and execute pilot projects. Working with such experts can help an IT department to acquire skills quickly.

Buy Carefully

One of the biggest advantages that open source provides to IT departments is choice. Open source allows companies to avoid vendor lock-in, which can lead to higher costs and restricted options. On the other hand, choice can be a burden, because options must be evaluated, which might be difficult to do in an emerging market.

The best thing IT departments can do is test the offers provided to them in every way possible. It is likely that certified bundles will be available for installation on a trial basis. IT departments can call hotlines to determine the support staff's expertise and availability.

Commercial open source support services are one way of closing the skills gap. However, they might not work for every situation. Sometimes the skills, not the software, require support. It is possible that commercial open source support services could evolve in this direction and offer education as well as support services. As more IT departments experiment with open source, they likely will find that they need support of some kind. After all, it is a lot easier to get open source working than it is to configure it, tune it, and solve its problems.

This year is shaping up to be a period of intense learning for IT departments as well as for commercial open source support providers. Eventually, if the services can be provided for a reasonable price to a large enough base of customers, a mature and stable open source support offering will be defined. Until then, IT departments will need to be careful when evaluating and choosing open source support vendors.

One unintended effect of the arrival of commercial open source service providers could be a slowdown of the innovation cycle. Once you purchase support, forget about recompiling what you have and adding your own customizations to the key components. If bundles become popular, commercial support providers might want to delay the rate at which changes are made to restrain the costs of supporting a wide variety of bundles. This could create tension between IT departments that want the benefit of rapid open source innovation and the support providers who want to maintain stability.