

The Inevitable Unbundling of Software and Support

By Brad Wheeler

Recent months reflect an important discussion of open source application software for higher education. The success of Linux and Apache at the infrastructure level and the generally collaborative nature of universities prompted Gartner to forecast that higher education would be one of the early places for open source applications, such as course management systems, portals, and ePortfolios. The classic “Build vs. Buy” decision has now been augmented with open source’s “Borrow” option—borrowing without an expectation of repayment. Some argue that the lack of commercial support is open source’s Achilles heel. Conversely, I assert that the emerging unbundled support model for open source applications is actually a feature, rather than a bug for higher education’s future.



Unbundling is inevitable. Traditional models for software have offered a for-fee license to use proprietary intellectual property (IP) bundled with for-fee support provided by the owner of the IP. Unbundling creates two distinct markets for software and support. Thus, the following points merit timely scrutiny:

- Unbundling is a general economic trend that offers greater efficiency.
- Recent open source collaborations have triggered unbundling for higher education.
- Markets segments will choose.

Economic Trends Favor Unbundling

Unbundling is a general, evolutionary economic trend favoring greater marketplace choice and efficiency. We can observe this trend all around us. Few of us buy auto insurance from our car’s manufacturer or telephone repairs from the phone company. We plan our travel with à la carte choices for rental cars, hotels, and airfare. We buy our mobile, local, and long-distance phone service from different providers.

Unbundling does not negate the possibility of offering bundles—note the travel industry’s recent attempts to rebundle complete trips or the telecom provider’s efforts to package all of your phone services—but the options for unbundled choices remain plentiful because they are economically efficient.

It is tempting to dismiss these arguments by asserting that complexity in

large application software systems necessitates support from its creator. It is indeed difficult to support a black box without knowledge of its inner workings—which is today’s current situation with proprietary software.

Open source, however, changes the situation considerably. The inner workings of the software are visible—and changeable—by anyone who chooses to understand them. For-profit companies can build competencies in understanding, supporting, and extending open source software to offer for-fee services without holding proprietary license over the IP itself.

Open Source Accelerates Unbundling

But will this unbundling work? Do these “IP-less” companies really exist? The success of uPortal with well over 170 adoptions and multiple Open Source Support Providers (OSSPs) demonstrates that unbundling works. The r-smart group’s support for the Open Source Portfolio Initiative’s Release 1 is another example. No less than a dozen well-funded open source application projects in the past year ensure a healthy stream of open source products for higher education.

These include Sakai, Fedora, Navigo/AAM, ePortfolio, VUE, LionShare, and others—all written for education, by education. Many of these will provide support markets for OSSPs to achieve needed economies of scale. Projects that use the OKI Open Service Interface Definitions (OSIDs) or the forthcoming Sakai Tool Portability Profile will also help OSSPs build solid economics in support.

Not all open source projects will succeed, and not all OSSPs will develop the competencies to compete profitably in this new era. Some administrators perceive this as imposing greater risks on universities than the current bundled model. I contend, however, that unbundling actually hedges a university’s risk as it has more options. It can switch OSSPs, develop in-house competence if OSSP pricing becomes unfair or they fail, or even leverage an OSSP relationship to switch to different open source code should that ever be necessary.

For example, when Red Hat recently moved to increase academic support fees and impose migration timelines, one major university dropped Red Hat’s support services and contracted with a different vendor to provide security patches and updates for Red Hat distribution at a considerably better price. For application software, consider the actual lower risk of navigating among unbundled options versus the costs of trying to switch among the leading bundled application providers that pervade the marketplace today.

Market Segments Will Choose

Finally, assertions of open source versus commercial with only one winner are overly simplistic and distracting. Open source and OSSPs are a complement to, not a wholesale replacement of, traditional bundled software models. Open source creates a continuum of IP and support choices beyond the traditional discrete choices of “buy it with bundled support” or “build it and support it all yourself.” Market segments will choose among open source,

blended (OSSP bundling an OS product), and traditionally bundled value propositions to best suit their needs.

Bundled propositions from vendors—based on proprietary, open source IP, or even a mix—will clearly prevail in some segments. Some universities will buy a bundled open source application with a support package from an OSSP while others will choose no support or only ala carte services from an OSSP and do it themselves. Others may decide that the current bundle of proprietary IP and vendor support serve their needs as well.

Unbundling is good for higher education. It will sharpen the value propositions, increase choice, and provide a healthy set of options for serving our dual challenges: working within sustainable IT economics while addressing the requisite frontiers of innovation.

Wise administrators already reject the flawed assertion that open source will make software free. Likewise, they should also reject the equally flawed view that IP and support are only viable as a proprietary bundle. Now is the time to align an institution's IT strategy to take advantage of new options for software and support.

Brad Wheeler (bwheeler@indiana.edu) is associate vice president for Research and Academic Computing in the Office of the Vice President for Information Technology at Indiana University. bwheeler@indiana.edu

This article originally appeared in the 3/1/2004 Issue of Syllabus