

Burden of Proof

The Case for Linux, in Effective “Proof of Concept” Deployments

By John Persinos, Larstan Business Reports

Federal managers can't afford to roll the dice on major IT migrations. The stakes are too high for them to plug and pray; they'd rather *try before they buy*.

Each federal entity has its own particular goals, but they all share common computing needs. Their IT systems must ensure a long list of mission-critical necessities, including reliability, flexibility, interoperability, and cost-effectiveness. Open source architecture in general, and Linux in particular, meet these needs far better than proprietary, closed systems such as Unix.

"It all boils down to this: with open source computing you can more readily tailor your IT system to your strategic goals," says Jon Hall, executive director, Linux International, an independent group dedicated to raising awareness of open source software. "It gives you, the user, the power and control. You're not tied to the manufacturer's whims and edicts."

Security is another vital issue in the federal IT sector, as cyber-terrorism becomes an omnipresent threat and hackers grow more resourceful and dangerous. Linux's openness allows users to more precisely detect system vulnerabilities. They can subsequently implement security fixes easier and faster.

Hall says there's an enduring notion among end users that Linux's openness somehow makes it less safe than proprietary systems, but he dismisses this idea as a myth. "Open source architecture provides more transparency and control, allowing users to detect and fix security vulnerabilities in real time, as opposed to waiting for proprietary vendors to fix the chinks in the armor," he says.

That's why increasing numbers of federal IT systems are migrating from proprietary Unix operating systems to Linux, to gain platform flexibility, cost advantages, and a cornucopia of other benefits. The problem is finding the right way to handle this migration. The deployment must be accomplished in a cost-effective, timely and strategically appropriate manner — and therein resides the headache for many managers.

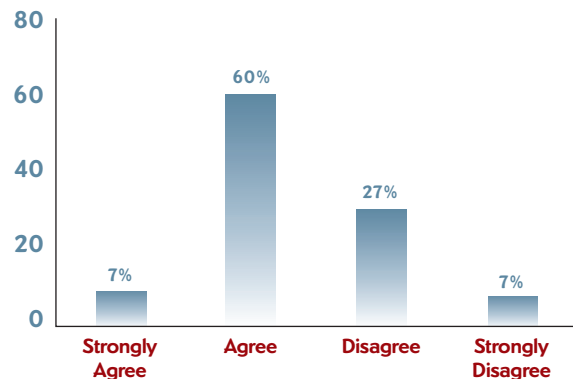
All too often, when seeking customized solutions, federal agencies have instead received a hodgepodge of disparate technologies from multiple vendors. On the other side of the coin, attempting to save money by purchasing out-of-the-box software that's not customized for the job can leave users with insufficient solutions.

Larstan's research confirms that IT managers don't want "shelf ware," nor do they want technological bells and whistles. They need

genuine value that's relevant to their respective agency's mission. They want to break free of the limitations of closed architecture and upgrade to Linux — and still improve the bottom line.

These issues are borne out by recent empirical survey research. According to a new Larstan Business Reports survey of federal IT managers in the civilian and defense sectors, 67 percent strongly agreed or agreed that the general perception of a lack of contract options for open source migrations makes the RFP/procurement process for such migrations too costly, too long and too complicated (see chart, below).

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Try Before You Buy

IT analysts say they're witnessing a pronounced shift in the way federal clients launch IT deployments, with overall "stakeholdership" transferring to other managerial areas of the enterprise. Because IT systems these days are increasingly holistic and driven by strategic imperatives, the IT department must solicit the advice and buy-in from top managers in other departments. There's a growing emphasis on other justifications for deployments, such as reliability. That's especially true, in the face of a host of mandates and regulations to make federal agencies more responsive and efficient.

Again, the Larstan survey drives home the point. Among respondents, the largest percentage — 40 percent — cited "reliability" as the quality that's the most important for an operating system for their purposes.

To meet these deployment challenges, Hewlett-Packard (HP) and its IT solutions partner GTSI, Chantilly, Virginia, have developed a "Proof of Concept" program that emphasizes reliability.

Proof of Concept is designed as a way for federal IT managers to try-before-they-buy a completely functional Linux system in their own facility, to see how it performs. Under the program, prospective federal clients upgrading their proprietary Unix systems are allowed to try a fully equipped Linux system in their facility for 60 days. The system is an HP “Linux box” with dual Intel CPU’s running Red Hat’s latest security release (RHEL 4) and the latest version of Oracle.

The program also provides the services of support staff that work onsite, to check that the customer’s data is loaded correctly and the system is customized according to original specifications. In return for participation in the program, the customer must agree to have the results published, to commit the resources necessary for a successful test, and to attend weekly meetings with GTSI and HP.

Jeffrey Wade, open source and Linux marketing manager, HP, says proof of concept gives the client confidence — an important quality when it comes to often uncertain IT deployments. “They actually get to run it in their environment and see how all the pieces work together,” Wade says. “In this market, it’s all about making the customer confident that the solution is right for them and it actually works. Very often, the biggest anxiety a customer has is, will this actually work in the real world?”

From the customer perspective, Linux can take vendors out of the equation, when it comes to system support and fixes. Indeed, end users say that’s why open source is attractive to them — they can be self-supporting if they want.

“Linux and open source architecture can be empowering for federal IT managers. Open source is changing all of the rules. There are times when a proprietary vendor won’t even make the changes, because it’s not financially worthwhile for them. Linux provides a level of control not available in the past.”

— Jeffrey Wade, open source and Linux marketing manager, HP

HP serves as the single point of accountability for a customer’s support needs, consequently eliminating the vendor “lock-in” clients would experience with Unix. End users can choose the vendor that best suits their needs, but regardless of the vendor, HP will take on all support needs and requests. HP has the unique ability to support multi-vendor platforms and environments.

This “one-stop-shopping” is an uncommon service in the IT community. “We supply the support for the work of other

vendors,” Wade says. “That reduces the hassle factor for clients. They make one call, to one partner. In the background, of course, we’re working out issues with vendors, but the client gets a streamlined support interface.”

HP’s “adaptive enterprise” model of deployment gives flexibility to clients. There isn’t one technology that meets everyone’s needs; consequently, HP strives to be adaptive. Environments tend to be heterogeneous; the key is finding the best way to integrate all of the disparate pieces, and then finding the best way to support the cohesive whole.

Pulling the Pieces Together

Federal IT managers are under increasing pressure to shorten and accelerate deployments that often take too long and go over budget. Moreover, the nature of the government sector is for projects to be “bid-intensive,” making the process complex and protracted.

Because of these challenges, government end users prefer a single point-of-contact, but this benefit is often unavailable. Under the Proof of Concept program, HP provides “single point” support across the enterprise, regardless of the platforms or products customers choose.

Part of HP’s deployment strategy is a drive toward standard-based platforms, for greater commonality of technologies. HP leverages the work already occurring in the open source developer community. “Taking advantage of the continual work and fine-tuning of the open source community reduces costs,” explains Jon Hall.

Wade says there are so many sets of eyes in the development community looking at Linux, the result is a well-honed, market-tested product. “We see so many RFPs coming in now that require open source software,” he says. “Linux is quickly becoming mainstream. The customers now who are enthusiastically embracing Linux are coming from Unix environments. Linux is a relatively easy and cost-effective way to redeploy your solutions from an existing Unix platform.”

The Larstan survey underscores Wade’s assertions. According to respondents, 79 percent strongly agreed or agreed that if contract options were in place to meet all open source migration needs, it would represent a significant savings to their organization.

In recognition of these market realities, GTSI serves as a client’s consultant, by first learning the agency’s core mission. The goal is to provide a solution that enhances a federal agency’s strategic, and not just tactical, considerations. By working on

the front-end with partners to understand a client's needs, GTSI crafts a solution that confers operational as well as enterprise-wide benefits. These deployments reflect the effectiveness of making contract options available to accommodate all Linux migration needs.

"Open source is better because of freedom of choice," says Jim Sweeney, practice manager, GTSI Enterprise Linux Solutions. "If I run a proprietary Unix, I'm stuck with that manufacturer's hardware. But if I run on an open source Intel-based platform, that platform is available from a lot of different manufacturers."

Linux is by far the fastest-growing operating system, but still the smallest in terms of market share. IT analysts estimate that only about 5 percent of servers run on supported Linux; the rest are Unix or some form of Windows.

It begs the question: if Unix is so inherently flawed, why do so many people still use it? "The major reason is, they have an existing proprietary Unix system that has not yet reached its end of life," Sweeney explains. "However, as they reach end of life, users are making an evaluation, and asking themselves, do I want to stay with those proprietary platforms, or move to open source? I would say a large portion are choosing open source."

Linux dovetails well with proof of concept deployments because open source software makes it easier for developers to quickly determine which technology, from a host of technologies, is most viable for the end user.

"Whereas the customer with a proprietary system had a pocketknife with one tool on it, with an open source system, he has a knife with many attachments," says Scott Ruff, HP's Linux business development manager, federal government. "The public transparency of open source software also allows developers to 'de-risk' a system before putting it into place. It enhances reliability, right from the start, especially in the form of a proof of concept."

Mike Fitzmaurice, GTSI's Linux business development manager, says increasing numbers of major vendors who value reliability are embracing Linux, which in turn pushes Linux into the computing mainstream. Fitzmaurice also is president of the Beowulf Users Group, an unaffiliated group comprised of end users of high-performance computing systems built on Linux. A major component of Beowulf's membership is government IT managers.

Fitzmaurice's assertion is supported by a revealing insight gleaned from Larstan's research. According to the Larstan survey, a clear majority of respondents — 66 percent — either strongly agreed or agreed that Oracle's embrace of Linux confers credibility on that system and it would make them more likely to migrate towards it. Oracle, widely used by the federal government, is a major component of the Proof of Concept program.

"As more vendors use Linux, it confers greater credibility on open source architecture," Fitzmaurice explains.

To view Larstan's "Federal Linux Survey" in its entirety: <http://www.larstan.net/linux.htm>. For a complete set of Larstan reports and surveys: <http://www.larstan.com>.

For view the HP Proof of Concept Program online, visit www.larstan.net/linux.htm

Resources:

- » Jon Hall, executive director
Linux International:
603-672-4557
maddog@dtype.org
- » Jim Sweeney, practice manager,
Enterprise Linux Solutions, GTSI:
703-502-2268
jim.sweeney@GTSI.com
- » Scott Ruff, Linux business development manager,
federal government, HP:
404-774-4035
scott.ruff@HP.com
- » Jeffrey Wade, open source
and Linux marketing manager, HP:
281-518-1489
jeffrey.wade@HP.com
- » Mike Fitzmaurice,
Linux business development manager, GTSI:
703-502-2904
michael.fitzmaurice@GTSI.com

www.GTSI.com
www.HP.com