Company of the Month

Brandon Witte,
President & CEO,
Sightline Systems

Red Hat:
Open Culture Takes Hold

Jim Whitehurst,
CEO

$ 15US

Big Shifts Enterprise Transformation through Open Source V1

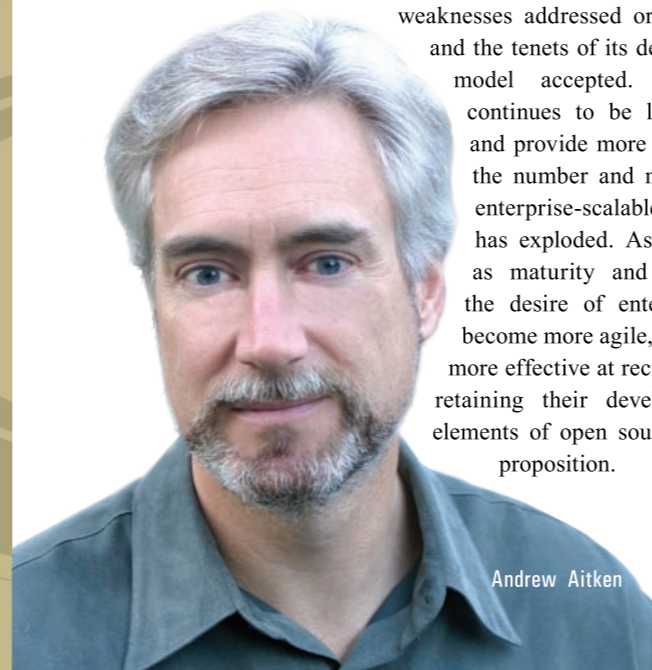By Andrew Aitken , Global Open Source Practice Leader, Wipro

Open source and the enterprise

A decade ago I told my wife that open source had 7-8 years before it ran its course and I needed to find a new career. My thinking was that open source would become so prevalent and woven into the IT ecosystem that people wouldn't think of it as a separate category of technology. Boy was I wrong, and in the best possible way. Open source and the development model it has ushered in is even more distinctly important today than ever.

Outside of Linux and some middleware and infrastructure applications, open source software (OSS) has long held an unrealized promise for the enterprise. Lack of application maturity, lack of choice and support options, concerns over the licensing model and perceived security issues - all led to anemic adoption in large corporations. That adoption scenario has changed drastically.

Currently, enterprise adoption of open source has tremendous momentum across the entire IT landscape. Its impact is being felt in virtually all of today's large enterprises and in industries as diverse as astrophysics, medicine, government, agriculture and many more domains. It is being brought into use on a grand scale every day by corporations the world over. And the primary reason; OSS has reached a stage of maturity where its benefits have become more tangible, its weaknesses addressed or debunked and the tenets of its development model accepted. While it continues to be lower cost, and provide more flexibility; the number and maturity of enterprise-scalable solutions has exploded. As important as maturity and choice is the desire of enterprises to become more agile, leaner and more effective at recruiting and retaining their developers, all elements of open source's value proposition.

Today, organizations such as Chevron, Goldman Sachs, Fidelity Investments, MasterCard, Dell and GE are validating OSS by deploying it for large scale projects. Engineers at Chevron for example, are using open source technologies to locate oil by collecting vast amounts of seismic data and using Hadoop to plough through it in a bid to identify oil reservoirs (http://blogs. wsj.com/cio/2012/06/05/chevron-explores-open-source-using-hadoop/). Sears has been using Hadoop to manage large amounts of customer data in a cost-effective and efficient manner. Netflix keeps its IT costs down while significantly enhancing its innovation process by making open source the only way they develop software. Adoption by such large corporations dispels the myths that open source can't scale to meet the demands of the enterprise.

Furthermore, these are organizations that put a premium on application quality and data security and are confident open source facilitates both.

Time to Change Your View

The turning point for OSS has not been sudden. Over the last decade, it has gradually attracted investments and commitment of resources from major businesses and vendors to improve its quality, security and scalability. Google, VMware, Cisco, Intel (to name just a few among thousands) have been investing in OSS development. Traditional IT vendors such as Oracle, Microsoft and SAP are going to great lengths to ensure their products work on OSS platforms. Most people don't realize that the vast bulk of SAP products today incorporate large numbers of open source components and that Microsoft is one of the most active contributors to open source. In fact, I am aware of only two publicly traded organizations that that have established a wholly owned subsidiary dedicated to "open" technologies and open source – Microsoft and Qualcomm.

Among the lingering barriers to OSS adoption is the misperception that there is an immediate ROI to enterprise open source adoption. This is rarely the case. When you include transition and migration costs, training, support, governance, etc., ROI can be negative. However, the traditional grounds up nature of open source adoption will typically have a positive ROI at the department level until it reaches a certain saturation point -relatively unique to each corporation - where open source becomes an institutionally recognized core component of the IT landscape and all sorts of corporate controls are applied. Although, the more open source an organization consumes and the longer it does so, the better the financials become. And when considered on the basis of TCO, the results are generally quite positive. License and subscription costs are typically an order of magnitude less than comparable proprietary solutions, there are frequently more support options, and the OSS licensing regime ensures availability and continuity. Where both TCO and ROI tend to be positive is when OSS is used to innovate around new technologies such as big data, analytics and cloud computing. There are far fewer legacy systems that require replacement, migration or re-architecting.

Once an enterprise gets its OSS adoption underway, it faces an important reality: the flexibility that OSS provides can be a double-edged sword. The number of choices available to create an IT stack or end-to-end solution can be daunting and can easily lead to indecision or confusion. Enterprises must carefully deliberate upon which solutions to adopt, considering such factors as open source license, community maturity and vitality, and commercial ecosystem.

Many enterprises today are deeply engaged in OSS projects. Their participation is driven by the ability to have an impact on how an open source project evolves, so that their developers can become more efficient. This also gives organizations visibility and access to highly skilled developers.

Inner Source

Open source development principals (collaboration, meritocracy, transparency) are being leveraged within organizations to address critical issues including technology redundancy, disparate, inefficient and hierarchical development models and lack of innovation and knowledge drain. OSS is ushering in a new way for enterprises to develop software, known as Inner Source, which can effectively improve developer productivity, code quality and security and dramatically increase reuse.

A leading indicator, that OSS is becoming a disruptive force in IT is the fact that vendors are snapping up commercial

Today OSS adoption is gaining momentum and is being brought into use by major corporations, research organizations, educational institutions and governments

open source enterprises at heady valuations including Red Hat's acquisition of open-source storage firm Inktank last year, HP acquiring OSS cloud provider Eucalyptus, Tibco snapping up open source BI pioneer Jaspersoft, and Microsoft's announcement that they will acquire Revolution Analytics, to name just a few. In short, there is a definite push traditional IT companies are making towards ensuring that their products become interoperable with OSS – good news for enterprises.

Saying "Yes" to Open Source?

The question of when to begin using OSS is now largely rhetorical one, the more relevant question: When does open source move from a tactical component of our IT environment to a strategically imperative technology and development model? The answer to that is most likely now.

Open source's strategic impact can be seen and felt in many industries. For example; in the financial services sector where it's no longer the "cool" place to work, enterprises are aggressively engaging in open source communities to retain and recruiter developers. They are and they're collaborating to reduce the burden of developing, maintaining, and paying for non-differentiating software. In the retail industry, where it is imperative that customer facing solutions are brought to market faster and more usable information is acquired, companies are building sophisticated commerce and analytics platforms based on Hadoop and customer facing systems on Drupal. Today, regardless of your challenges or the opportunities in front of you, there is a compelling case for the strategic use of open source software.

So, I am glad to have been wrong about open source and to know that I will have plenty to do for some time to come.

Andrew Aitken