



Sometimes, Waiting is the Answer

Jeffrey S. Bardin, CTO

Treadstone 71

You're the head of your IT shop and you have capital to spend. You ask yourself, should you make the purchase of that new device or software package right now? If you ask me, I would say, let's quickly look at this from an evolutionary perspective with current market conditions in mind.

Most would believe that the managed service provider marketplace grew out of the dotcom era and is an incredibly new phenomenon. In fact, it is not. *Whatever is old is new again* is the mantra here. The IBM 'Big Blue' days characterized by centralization and relative simplicity are gone, but a swing back towards that era is taking shape (as much as it pains me to admit). Firewalls were unheard of and connections between corporate locations were point to point. Corporation's use of information technology was for internal use. The internet was but a glimmer in the eyes of government funded computer scientists. The stability that IBM's technology offered was truly amazing. It was seldom a mainframe would crash. The software was hardened; the hardware although massive worked as billed. The infrastructure was largely homogenous. The ability to monitor and manage any infrastructure device from a central console was the norm, not the exception. Operational efficiencies were inherent in the system. It's amazing what nearly 30 years of maturation will do for anything! Over the years, smaller more powerful machines began to take a bite out of IBM's supremacy. Three-tiered client server technology and PC's grabbed a foothold. File servers at a much cheaper price point proliferated corporations. PC's transferred power from the massive infrastructure to the desktop. Then came the open and distributed nature of the World Wide Web with the focus moving to the network and distributed systems.

Exodus started the IP-based hosting/data center business in the mid-nineties with collocation services. Others soon jumped into the fray. The ease with which companies could deploy a web-based business was astonishing. All they needed to do was purchase or lease some servers, store them in an Exodus 'cage' and they were off. Their in-house staff could handle the management of those servers. Levels of complexity remained low since the technology was so new and there was no maturity to speak of (with respect to both the technology and the skillsets needed to manage it). Over time, businesses began finding that the technology was changing so rapidly that they needed to hire more technical staff. In addition, new software was being released without much in the way of quality assurance checking. It was as if all the proven development methodologies of the past had been completely discarded. This created security holes, multiple patches and service releases, and an overall increase in unexpected downtime. Equally disturbing was the lack of available tools to monitor and manage the environment.

A new breed of data center began to take shape. NaviSite and Digex were the first to appear on the scene with a new offering, that of the Managed Service Provider or MSP. Their market focused on providing expertise where none could be found. They took the Exodus model of pure collocation and built it into one where they managed the servers, the operating systems, the applications and databases, provided DNS and mail relay service, and storage non-inclusively. At this time, it was even easier for businesses to create a web presence. No technical expertise was needed to create, much less manage the technology around a website. Even more software was being created at an even faster pace. The software was disjointed in that there was no continuity between web server and application; application and operating system; database and storage; and the security surrounding the whole infrastructure was an afterthought. Tools for monitoring, systems management and overall environment health began to emerge but they were focused on certain aspects of the environment, none covering the whole. Furthermore, a significant amount of scripting and systems integration was required for this disparate toolset to work together.

MSP's made valiant efforts to script solutions between the software and hardware systems, creating an operationally inefficient infrastructure. Ad-hoc monitoring tools that required the installation of software agents became the prevailing method for monitoring. All required scripting in multiple places (on the devices themselves and at a centralized location). These toolsets would then need to integrate (SNMP traps with event handler translations) with the main integration engine which, in turn would need to integrate with the presentation layer so personnel in the network operations center or NOC would be able to view, understand and support the infrastructure. Each area of contact required scripting and integration work resulting in more staff and more infrastructures required to manage the customers technology stack. Companies of the dotcom mold began to flock to this model. Most had existing IT staff already entrenched in legacy technologies and not able to make the jump from the sequential nature of their environment or the speed that was required to keep pace with the new. Outsourcing of web infrastructures was required. Some enterprises were able to make the transition and create internal web-focused teams largely due to their financial position. . Highly skilled information technology personnel were replaced by young turks with little business experience. Effective processes and procedures were relatively non-existent, forgotten in exchange for a speed-to-market mentality at all costs. Small and Medium Enterprises or SME's were neither able nor inclined to make such a financial investment. The model worked for that time in the evolutionary lifecycle of this explosive technology revolution.

The downturn in the economy began in early 2001 and spelled the ruin of many dotcom companies with weak business models and overextended financial positions. Many who had been early pioneers were failing. The huge cost need to build out this massive new infrastructure was swallowing companies (Exodus, Futurelink, Yipes, and multiples of Competitive Local Exchange Carriers (CLEC's)). Of those that survived, their infrastructures were and continue to be purchased for pennies on the dollar in preparation for the next steps in the evolutionary process. Others either merged with or were acquired by larger more stable corporations. A maturing of the model was taking place and continues to do so.

Information Technology infrastructures and complete environment event stream monitoring and management tools are beginning to mature along with the maturation of the IP-based, heterogeneous environment. Companies such as Micromuse deliver tools that not only monitor much of the environment, but also correlate event streams across the enterprise. Other companies such as Opticom and Peakstone are the next generation in the maturation process but they are keenly focused on particular pieces of the complete environment. Quantiva is working to reverse the 20% monitoring 80% manual fix rule that permeates enterprises infrastructures today through intelligent and automated software. Each are valuable in their own right in migrating IP-based infrastructures back to the centralized, highly available and reliable model so well perfected by IBM in the 80's.

Glenn O'Donnell of the Meta Group states that *"IT organizations should redirect energy and resources to a more strategic and business-centric focus instead of a reactive, tactical focus. The trend toward managed infrastructure services and away from private infrastructures will accelerate. That task of managing the infrastructure will become easier, because more of the manual process will be automated and more of the infrastructure will be in the form of services. A slow evolution of dynamic infrastructure mechanisms is now accelerating. Infrastructure behavior will possess basic characteristics and resemble biological organisms by 2004/05."*

So, should I make that purchase? As I wrote in a December article (see <http://www.interfacenow.com/column.taf> - The Internet Data Center as an Ecosystem), the symbiotic nature of a mature technology will eventually be the norm. The question IT organizations have to ask themselves is when do I buy into the emerging technologies that offer true competitive advantage from my company? What is the real return on investment of products in the marketplace today compared to what I can achieve if the Meta Group is accurate in their assessment and I wait for another year plus? Should I continue to spend each year in incremental gains? If you were to ask me, I would work very hard right now to clean up the operational inefficiencies within my IT department. I would focus on ensuring my IT shop was tightly aligned with the business. I would bleed every cent and every feature out of every device and software package installed within the enterprise. I would hold on any new major capital purchases unless it was absolutely critical to the success of the company, if and only if I had exhausted searching the service provider industry to see if I could outsource this effort for a fixed monthly utility cost as I waited out the period of expected technology maturation. And even then, I would look back at the service provider industry for the answer. The risk then is in their pockets. If I can let them maintain pace with emerging technologies, I don't have to suffer the historical pain discussed above. I have shifted the risk outside the organization. I would wait to make that purchase. That is of course, if you are asking me.

Jeffrey S. Bardin, CTO
Treadstone 71
jbardin@treadstone71.com