

SERVER/DESKTOP VIRTUALIZATION—A BEST OF BREED BAND-AID

Virtualization is a buzzword that has moved beyond into mainstream use and enterprise deployment. A few years back vendors were ‘virtualization-washing’ their products and services the way many ‘cloud-wash’ the same today. Now a good majority of enterprises are well into their server virtualization efforts and moving into Virtual Desktop Infrastructures (VDI) and cloud deployments. This is not by accident, hardware virtualization comes with a myriad of advantages such as: resource optimization, power and cooling savings, flexibility, rapid deployment, etc. That being said we dove into server/desktop virtualization with the same blinders on we’ve worn as an industry since we broke away from big iron. We effectively fix point-problems while ignoring big picture, and create new problems in the process:

- Fix cost/support of the mainframe with commodity servers, end up with scalability and management issues.
- Consolidate servers and storage to combat scalability end up with density issues and reencounter scalability problems with growth.

- Move to blades and end up with ‘Mini-Racks.’ (See Sean McGee’s post:<http://www.mseanmcgee.com/2010/05/the-mini-rack-approach-to-blade-server-design/>)

- Virtualize and end up with management complexity, sprawl, and other issues.

The underlying issue is the way in which we design our applications. When we moved to commodity servers we built an application model with a foundation of one application, one operating system (OS), one server. We’ve maintained that model ever since. Server/desktop virtualization provides benefits but does not change this model it just virtualizes the underlying server and places more silos on a single piece of hardware to increase utilization. Our applications and the services they deliver are locked into this model and suffer from it when we look at scale, flexibility and business continuance.

This is not a sustainable model, or at best not the most efficient model for service delivery. Don’t take my word for it, jump on Bing and do a search for recent VMware acquisitions/partnerships. The dominant giant in virtualization is acquiring companies or partnering with companies poised to make it the dominant giant in PaaS and SaaS. Cloud computing as a whole offers the opportunity to rethink service delivery, or possibly more importantly brings the issue of service delivery and IT costing to the front of our minds.

Moving applications and services to robust, highly available, flexible architectures is the first step in transforming IT to a department that enables the business. The second step is removing the application OS silo and building services that can scale up and down independent of the underlying OS stack. When you talk about zero downtime business continuance, massively scalable applications, global accessibility and other issues the current model is an anchor.

That being said transforming these services is no small task. Redesigning applications to new architectures can be monumental. Redesigning organizations/processes and retraining people can be even more difficult. The technical considerations for designing global highly available services touches on every aspect of application and architecture design: storage, network, web access, processing, etc. That being said the tools are either available or rapidly emerging. Any organization looking to make significant IT purchases or changes should be considering all of the options and looking at the big picture as much as possible. The technology is available to transform the way we do business. It may not be right for every organization or application but it's not an all or nothing proposition. There's no fault in virtualizing servers and desktops today, but the end goal on the road map should be efficient service delivery optimized to the way you do business.

Source: <http://www.definethecloud.net/serverdesktop-virtualization-a-best-of-breed-band-aid/>