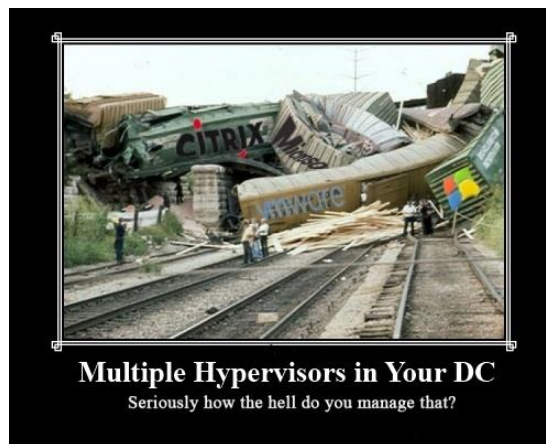


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Multiple Hypervisors in the Datacenter – The vAdmin's Dilemma

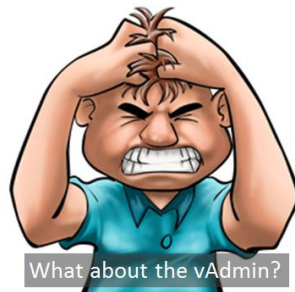
Earlier this year, I presented a session at the [Briforum](#) conference in Chicago on this topic. One of the main points I wanted to get across to the Virtualization Administrators of both server virtualization and VDI is that were in attendance was that the argument as to whether or not to have multiple hypervisors in your datacenter is already pretty much a forgone conclusion and you need to prepare yourself for the inevitable. If you don't already have a mix of hypervisors supporting your server and desktop environments, there is an overwhelming chance you will, and you need to move past the arguments and sharpen your skills to manage them, and progress your career.



Back in August of 2010, I wrote an [article for TechTarget](#) explaining why I thought that the Hypervisor should not matter when it comes to management. Everything I wrote I still believe in today and now even more so. It is my belief that the hypervisor soon will become somewhat of a commodity in the datacenter and the questions of which one is running what servers and what applications really won't matter anymore, except to the person who has to administrate them all – the vAdmin. And this is my point; someone has to administrator them all, either via a utopian single pane of glass (which has not arrived...yet), or have the knowledge and experience to manage them using multiple tools. Since we are also talking about the possible separation what hypervisor hosts your virtual desktops as compared to your server infrastructure, I think that this is critical to the administrator of today who focuses all of their knowledge efforts on a single hypervisor, and refusing to learn about the others out there, without really looking to the future of the hypervisor itself, and their careers.

In my presentation, I referenced several studies that were done all the way back to 2008, showing that there already were datacenters that had multiple hypervisors housed in them. Nemertes Research stated in their [2010/2011 Communications and Computing Benchmark Report](#) that "Over 35% of organizations are running multiple

hypervisors in the same datacenter, underscoring the need to multi-hypervisor workflow and transportable software stacks”. This has even become more apparent with the advent of using multiple hypervisors to separate your environment between desktops and servers. More vAdmins are turning towards hosting their servers on one hypervisor, and their VDI environments on another. Even with this evidence, there are still some industry folks that say that they do not believe in it and it’s not the right thing to do. Now, I would be delighted to be involved in that most likely lively discussion, but that is really hindsight for some administrators, since they already have it, and they have to deal with it, today.



So, what should a server or VDI administrator do if either they already have them, or they are seeing the light coming down the tracks? It somewhat depends on what experience you have already with hypervisors. If you have already mastered one, you need to think about what the similarities are between that one and the others. This won’t be without some difficulty since many of the vendors like to use their own terminology and models (Hmm, wouldn’t Standards be nice!). But, if you can get the basics down, and I have yet to find a good resource available that provides meaningful help with the hype, you already have a good start. The next obstacle is the actual processes and procedures you use to do the daily tasks that are a staple of your job.

Take a look at how you administer what you have today. Do you use a GUI like vCenter for VSphere, or XenCenter for XenServer? Or, do you like to get back to basics with the CLI (Command Line Interpreter)? In my presentation, I showed that if you are in the GUI camp, Microsoft is making huge strides in multiple hypervisor management with the next release of [SCVMM 2012](#). Some of the attendees said I stressed it too much, even suggesting the idea that I am on Microsoft’s payroll, but nothing could be farther from the truth. While the CEO of VMware stands up and announces to the I.T. world that VMware has no interest in providing a way to manage multiple hypervisors, Microsoft and even some small software vendors are jumping on a bandwagon that I predict will be very profitable for them in the near future. I’m an vAdmin and just like every other vAdmin, I need the right tools to do my job. And if that means using SCVMM, so be it.

I make no secret about the fact that I came from the Unix world early in my career, working on Digital Unix and BSD. Given that, I love the CLI, as many of us “old

timers” do. Every major Type 1 hypervisor produced today has some sort of CLI. But did you know that all of the “Big 3” (VMware, Citrix, and Microsoft) have the ability to utilize PowerShell for their administration? I am a huge PowerShell fan and user, and this allows for us to have more of a complete CLI management experience for I.T., especially since PowerShell can do amazing things with other aspects of I.T. and even just daily computing life. Of course, Microsoft makes PowerShell, but doesn’t it seem goofy that VMware actually was first out of the gate with some real substantial cmdlets for vSphere (now called PowerCLI), while Microsoft had almost nothing of substance for their Remote desktop or Hyper-V when it was first released? Well, those days are over and Microsoft has ponied up more advanced cmdlets, and Citrix has (finally!) brought XenDesktop and XenServer to the PowerShell management arena. If you’re not getting the gist of what I’m saying here, here it is, plain and simple – learn PowerShell. If you already know it a little, learn more. If you already know a lot, put your focus on the hypervisor cmdlets and the advantages that will come from using them.

I have written a couple of articles on these very topics (in the links section below), and there are many more out there on the Internet that can provide you with a vast knowledge base of ideas, scripts, and examples. If the CLI is your best friend, PowerShell will be a close second, especially when attempting to manage multiple hypervisors. And, once the software vendors come up to speed with their ambidextrous GUI’s that would manage more than just their product, vAdmin’s will reap the most benefit all the way around with both avenues of virtual server and desktop administration.

The real question for vAdmin’s isn’t whether or not there should be multiple hypervisors in their datacenters, but rather it should be how can I better prepare myself and my team for what will be the future of virtualization in my datacenter, possibly including both VDI and server virtualization hypervisors if they are not there already. Once that is realized and acted upon, the vAdmin will find themselves in the forefront of their profession and the satisfaction that goes with it.

Links –

[A VMware admin's guide to the XenServer command line](#)

[Windows PowerShell Cmdlets for XenServer Management](#)
[XenServer Management for the VMware Administrator](#)