

## Re: How does Citrix run it faster? was Re: Microfocus COBOL 3.2.43 (16bit)

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*Source:* <http://coding.derkeiler.com/Archive/Cobol/comp.lang.cobol/2006-12/msg00343.html>

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- *From:* "P. Raulerson" <[paul.rl@xxxxxxxxxxxxxxxx](mailto:paul.rl@xxxxxxxxxxxxxxxx)>
  - *Date:* Sat, 23 Dec 2006 00:48:05 -0600
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"Clark F Morris" <[cfmpublic@xxxxxxxxxxxxxxxx](mailto:cfmpublic@xxxxxxxxxxxxxxxx)> wrote in message [news:3h0po2p7qsaab1gij6qal0i8ujdh2f478n@xxxxxxxxxxx](mailto:news:3h0po2p7qsaab1gij6qal0i8ujdh2f478n@xxxxxxxxxxx)

On Fri, 22 Dec 2006 18:54:55 -0600, "P. Raulerson" <[paul.rl@xxxxxxxxxxxxxxxx](mailto:paul.rl@xxxxxxxxxxxxxxxx)> wrote:

Your guess would be partly right – I support Mainframe (z/OS, z/VM, zLinux), AIX, Linux, iSeries (OS/400, i5OS, Linux) and several varieties of Windows, including that blasted 64bit variant of Server 2003 that gives me heartburn.

In fact, our entire enterprise (about 350 people geographically scattered over 25 sites) runs on Citrix served up from servers here in Austin.

Citrix would be a bit expensive for what this chap wants, but it saves us a ton of money ,and an incredible number of support hours.

Are you the sole support person and if so how? Z/OS alone is normally a two or three person job.

There are five of us, and we don't have a large z/OS footprint right now. We have moved a lot of stuff to zLinux, and in the process would up writing 3270 terminal drivers, a VSAM equivalent, process management, transaction control, and so forth. Took about three years to do it all, but it was worth it. The end result is we can do an awful lot of processing awfully fast for a very small amount of money. lets us undercut the competition quite handily. We tend to use z/VM to handle the zLinux instances, and once setup, z/VM is a low maitenance type of thing.

I'm also not to ound to find and hire good consultants if I happen to be getting over my head either. ;) But with mainframe hardware, our stuff just runs and runs and runs and runs and... well you get the idea. We control

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cost this way.

That's a corollary duty by the way, along with phone systems, network design, security, and second assistant cook and bottle washer too I suppose.

I am best at being your everyday Sr. Software Engineer. That's in COBOL, C, Java, Ada, Assembler, and assembly language for a few other processors. I dabble in Visual Basic, RPG, and a half dozen other languages just because they interest me.

(Yep: I work for good people and I have a great job, when it does not wear me down to a nub... :)

To be fair though, I did sound arrogant, and that was not intended. I apologize for that. It is just that I tend to solve these kinds of issues several times per quarter, and, if this case is what I think it is, using a centralized VM to deal with this is probably a very good idea.

On the other hand, to me, you sound like a PC person who has little experience on other platforms. Bet you would argue that running Microsoft Office on standalone machines is faster than running it under Citrix. (Hint: it is much faster under Citrix. :) Where are you coming from, and am I anywhere close to right? :)

How does Citrix run Office faster?

Basically most Windows programs load one 'read only' code segment, and then a read/write data segment into memory for each user. When Word loads for the first user, it is about the same speed as on a local workstation, but the second, third, and subsequent users usually see Word load in less than second. It's a dumb thing, but I can bring up 20 or 30 instances of Word as fast as I can click the mouse on it.

Now the other thing is that Windows machines spend so much time managing displays, that processor intensive stuff, like say, working on a big Word document gets a littel shortchanged. A remote Citrix client is not usually doing anything else but managing the screen, while the server is pretty much just managing a memory buffer for that screen. No hardware manipulation or driver required. The technology is quite fascinating and beyond that, provides additional opportunities to enhance performance and response speed to the users. Partly it is the same reason a 3270 screen almost always looks 'snappy' – he doesn't really do a whole lot till he has all the infomration he needs to work on.

The worst, the very worst Office application is piggy old Outlook. That

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thing could slow down an Aircraft Carrier. Even that is about twice as fast as on a standalone workstation.

Of course, there are practical requirements. If your users are heavy office users, you can't stuff more than about a 100 of ;em on a single server – even with 64bit windows and plenty of RAM. The PC doesn't have the I/O capacity for it, even if you run the apps of a high performance SAN.

On the other hand, you can pretty easily stuff a 150 users on a PC that is only running terminal emulation. (Unless it is iSeries Access, which must have taken lessons from piggy old Outlook...)

It sounds counter intuitive, but it really isn't. Sun made a fortune selling diskless Sun 2's and 3's. They ran faster connected to a server than when they had local disks. Everyone had to see that to beleive it, including me back in early 1980's. It really has not changed that much. Try it sometime with a copy of Windows 2003 – it has terminal services built right in. It might surprise you how well it will perform. I have one client that runs text based AcuCOBOL that way for 21 people, on one little old Dell P4 machine. Heck, it even amazes me...

–Paul

–Paul

"Richard" <riplin@xxxxxxxxxxxx> wrote in message  
[news:1166755729.112914.302850@xx](mailto:news:1166755729.112914.302850@xx)

P. Raulerson wrote:

Tsk tsk... not so. There is such a thing as a virtual machine image that allows remote access. See for example: <http://www.vmware.com/solutions/desktop/vdi.html>. It's even cost effective.

That may be so, but that would be single–user access at any one time for each virtual machine. If the application is installed and used widely then it is unlikely to be useful to get the users to queue for access to it.

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I am guessing that you are a mainframer and do not have  
much experience  
with interactive desktop or PC applications.