

Performance tuning in Server 2.0 ...



[prisoner881](#) 62 posts since

Apr 24, 2008

Everyone has their favorite list of performance tweaks for the old 1.0 Server product. MemTrimRate, pshare, etc.

Has anyone applied these tweaks to the 2.0 product? Do they still help with performance? Do they even still exist as tweaks?

I posted this question back in the RC2 forums and nobody ever responded. Is nobody interested in improving VM performance under 2.0?



[DevotedDad](#) 30 posts since

Jul 30, 2007 1. **Re: Performance tuning in Server 2.0** Sep 29, 2008 5:37 PM

I'm interested in this as well ... anyone?



[btone](#) 102 posts since

Dec 9, 2007 2. **Re: Performance tuning in Server 2.0** Sep 30, 2008 2:16 AM

Not really did a lot of tuning myself but these are the thread that might help - if you haven't already found it:

[The struggle for disk IO scalability in Server 1.x and RC2](#)

[Tips for Improving Performance On Linux Host](#)



[Hochlehnert](#) 13 posts since

May 29, 2007 3. **Re: Performance tuning in Server 2.0** Sep 30, 2008 3:48 PM

 in response to: [btone](#)

Everything I did for Server 1.0 still works for 2.0

Here's my setup for Debian Etch:

General tuning. Add the following files to /etc/sysctl.conf:

```
vm.dirty_background_ratio = 5
```

```
vm.dirty_ratio = 100
```

Tune network performance. Add the following files to /etc/sysctl.conf:

```
net.core.wmem_max = 16777216
```

```
net.core.rmem_max = 16777216
```

```
net.ipv4.tcp_timestamps = 0
```

```
net.ipv4.tcp_rmem = 4096 262144 16777216
```

```
net.ipv4.tcp_wmem = 4096 262144 16777216
```

```
net.core.optmem_max = 524288
```

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```
net.core.netdev_max_backlog = 200000
```

Tune HD performance. Add the following lines to /etc/rc.local (change sda to your hd):

```
echo "64" > /sys/block/sda/queue/max_sectors_kb # This depends on the block size of your RAID controller
```

```
echo "8192" > /sys/block/sda/queue/nr_requests
```

```
blockdev --setra 16384 /dev/sda
```

Add the following line to /etc/fstab (create the directory /tmp/vmware first 😊):

```
tmpfs /tmp/vmware tmpfs defaults,size=100% 0 0
```

VMware setup (add the following lines to /etc/vmware/config):

```
tmpDirectory = "/tmp/vmware"
```

```
mainMem.useNamedFile = "FALSE"
```

```
sched.mem.pshare.enable = "FALSE"
```

```
MemTrimRate = "0"
```

```
MemAllowAutoScaleDown = "FALSE"
```

```
prefvmx.useRecommendedLockedMemSize = "TRUE"
```

```
prefvmx.minVmMemPct = "100"
```

After all that VMware Server is really fast (at least on my hosts).

It has only one disadvantage. After "redirecting" the mmap file to the RAM the sum of all guest RAM is limited to the real RAM minus the VMware overhead. That's because the mmap file always uses always the full RAM specified for the guest, but I can live with that.

BTW: This setup doesn't double the RAM usage.



[prisoner881](#) 62 posts since

Apr 24, 2008 4. **Re: Performance tuning in Server 2.0** Oct 2, 2008 1:00 PM

👤 in response to: [Hochlehnert](#) What about all the tuning options for the individual VM's? Do you no longer need to tweak the VM's if the VMWare config file is tweaked?



[JohnInSJ](#) 2 posts since

Nov 20, 2008 5. **Re: Performance tuning in Server 2.0** Nov 20, 2008 10:39 AM

👤 in response to: [Hochlehnert](#) Wow... thanks for this. I've been struggling with server 2.0's performance under Ubuntu server and the tmpfs/server settings made a HUGE performance difference.



[projectserve](#) 2 posts since

Jun 18, 2007 6. **Re: Performance tuning in Server 2.0** Nov 20, 2008 12:03 PM

👤 in response to: [Hochlehnert](#) Im new to VMware server 2. and im running it on a windows server 2008 x64 machine.

Can i use those options aswell in windows? yes; where to put it.. can't find a config file..

Cause my guest systems are way slow; running a Quad core Xeon, 8Gb ECC and 6x WDC Veliciraptor @ raid 5.

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VMware setup (add the following lines to /etc/vmware/config):

```
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MemTrimRate = "0"  
MemAllowAutoScaleDown = "FALSE"  
prefvmx.useRecommendedLockedMemSize = "TRUE"  
prefvmx.minVmMemPct = "100"
```



JohnInSJ 2 posts since

Nov 20, 2008 **7. Re: Performance tuning in Server 2.0** Nov 20, 2008 1:22 PM

 in response to: [projectserve](#) I know the answer to this one.


On windows you don't need to do a lot - setting mainMem.useNamedFile = "FALSE" in the vm's .vmx file is sufficient to keep it from doing the stupid memory-backed file thing

Lots of good info on .vmx file settings is at <http://sanbarrow.com/vmx/vmx-config-ini.html>



KhaledC 1 posts since

Apr 1, 2006 **8. Re: Performance tuning in Server 2.0** Dec 22, 2008 6:54 AM

 in response to: [Hochlehnert](#)

Hi,

I just wanted to add my experiences with this in the hope that it helps others as you have all helped me so much!

I have a decent host setup

Supermicro X5DP8

Dual Xeon 3.06Ghz

8GB RAM

4 SATA Disks in Raid 5 (vmware images partition)

Single SATA boot disk (Ubuntu etc...)

I was using Ubuntu 6.06 server for quite a while with vmware server 1.0.x (starting with .1 and ending with .7)

I upgraded regularly when newer versions would be released, and never faced any issues with the guests performance.

I recently upgraded to Ubuntu 8.10 server and took the opportunity to upgrade to vmware server 2.0.

Now that i'm using server 2.0 - i experienced some performance problems - it looked like they had something to do with disk performance.

Symptoms

On a win2k3 guest, i have a network share with some DVD photo backup ISO files (about 3.5 - 4Gb each)

I have a share mapped to one of my XP desktops and through that, i started to copy one of the DVDs to check some images.

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Initially the transfer window stated the ETA to be 9 minutes or so, after a couple hundred MB, it started increasing, and within seconds it was up to about 230 Minutes!!! - something is not right!

did some troubleshooting, isolating the problems, eventually i searched on google and found the post which linked to this one (thank you!!)

I didnt want to do all the steps in one go, so all i did was:

- The /etc/fstab modification
- The vmware config file modifications

Well, tried the file copy operation again, and it worked perfectly, took about 8-9 minutes to transfer the 3.5Gb.

Thanks for all the effort everyone has put in to document their experiences.



[ancker](#) 2 posts since

Jun 24, 2009 9. **Re: Performance tuning in Server 2.0** Jun 29, 2009 12:33 PM

in response to: [KhaledC](#)

Do you really set the:

vm.dirty_ratio = 100 ?

or

vm.dirty_ratio = 10 ?

thanks.