Subject: OpenVZ vs. VMware
Posted by n00b_admin on Thu, 20 Jul 2006 18:16:19 GMT
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I'm new to this virtualization thing, and i want to implement one of the above methods for security purposes and fast recovery in case something fails.

I was looking for an answer from someone who used any of these methods in production as a webhost and can tell me the pro's and con's of each method.

Subject: Re: OpenVZ vs. VMware
Posted by cdevidal on Fri, 21 Jul 2006 02:17:10 GMT
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n00b_admin wrote on Thu, 20 July 2006 14:16I'm new to this virtualization thing, and i want to implement one of the above methods for security purposes and fast recovery in case something fails.

I was looking for an answer from someone who used any of these methods in production as a webhost and can tell me the pro's and con's of each method.

I'll bet this topic has been discussed plenty of times in this forum before (use the search).

I'm new to OpenVZ, just did my first install last week. But I've read about it and I have enough experience with VMware to give an honest answer.

In my opinion VMware is easier to install but OpenVZ performs FAR better so I will likely use it for my web hosting. OpenVZ will always outperform due to its design concept; I read a 2002 article that said they got 2,000 VMs on one machine. With VMware you're lucky to get 6 at once before performance goes to pot. And that's with fast RAID 5...

I have used VMware to do disaster recovery scenarios but never OpenVZ. But when both are set up they should both be easy to quickly restore. I know VMware VMs are just a folder, not sure where OpenVZ stores its files but I'm sure it's a snap to restore. That's one universally quality about any virtual machine -- the "hardware" is the same on every host. You just restore the folder and boot up, no reconfiguration, no reinstallation, no re-configuring settings, no backup/restore hassles. Pure and simple disaster recovery goodness

If you need to run a few Windows servers you might consider buying Virtuozzo for Windows instead of running VMware. Just like Linux, it shares the kernel so you can get around 50 VMs on one server.

Of course you can only run one kernel but in practice (especially for a web host) this isn't usually a big problem. OpenVZ can load kernel modules into the VMs (if necessary) and you can run any distro (despite sharing the kernel).

About the worst side-effect of VZ is I haven't found a way to just insert a CD and install the OS.

You've got a bit more complicated setup. But that doesn't look like a deal-killer.

Don't get me wrong, VMware rocks. I'll continue to use VMware. I just believe that the advantages of OpenVZ, namely performance, make this my number 1 choice for web hosting.

If you need a more friendly experience, something between VMware and OpenVZ, purchase Virtuozzo. I understand it's real friendly. Plus it integrates with Plesk. You've *got* to have some sort of way to track users' megabytes and charge them for overages. I'm using HSphere but I'm sure Plesk is capable.

A tip for web hosters: use one VM per application. A MySQL VM, two DNS VMs, an SMTP VM, a POP3 VM, an Apache VM with all your users' websites, etc. That way if you need to scale out you can just migrate the VM to another piece of hardware. If you install too many apps under one VM you have to mess with a bunch of configurations when you migrate a service to another server. Because the overhead of OpenVZ is so very light you won't really notice the extra load of extra VMs, and you can scale up from one or two hardware nodes to a dozen or so HNs to handle multiple thousands of users.

I've spent too much time on this so I must go. Hope that helps!

Subject: Re: OpenVZ vs. VMware
Posted by n00b_admin on Fri, 21 Jul 2006 11:25:03 GMT
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Thanks for the detailed answer.
So, i understand that i can't make a vm for every client (~30) on one host machine if i choose vmware as a virtualization solution ?

I'm trying right now openvz to see how i can set it up and how it performs.

Sorry about not searching the forums first, i'll do that right now.

Subject: Re: OpenVZ vs. VMware
Posted by cdevidal on Fri, 21 Jul 2006 16:39:27 GMT
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n00b_admin wrote on Fri, 21 July 2006 07:25So, i understand that i can't make a vm for every client (~30) on one host machine if i choose vmware as a virtualization solution ?

Sure you can! It's just that it'll perform like a dog. Or you'll need a MASSIVE server to keep it alive. Imagine a minumum of 128MB per VM plus 128 for the host OS and there you have it...

Of course, you don't NEED to set up a VM for every client or application like I suggested. What will you be trying to accomplish?

OpenVZ performs better and the fact that you can only use one kernel doesn't matter in the majority of cases, particularly for web hosting. If someone needs a custom kernel module it can be virtualized pretty easily -- just read the manual or ask the forums. All-in-all, not running custom kernels is hardly ever a problem for web hosts.

VMware is great if for example you need to install Windows but don't have specialized hardware (Intel VM/AMD Pacifica) like Xen. Of course if you have these I understand VMware takes advantage of it but it's not necessary. Same with Parallels Workstation, another Xen-like hypervisor.

Another VMware strength is ease-of-use. Easy (in my opinion) to install, use, install guest OSes into, etc. But for you, once you learn OpenVZ ease-of-use doesn't really matter. And although I've never used it, Virtuozzo adds GUI tools that makes it far easier.

Again, and I don't mean to sound like a Virtuozzo commercial (I promise I do NOT work for them If you run Windows, consider buying Virtuozzo for Windows. That means you install one server and partition it into many virtual servers. You can run as many as 50 on one box, according to the documentation.

Or buy Windows 2003 Enterprise R2; Microsoft now offers 4 free Windows licenses for VMs. Pretty nifty, and a great way to save money. Of if you REALLY wanna drop some bux, get DataCenter Edition. Very expensive, but might save on license costs if your needs are great enough.

Subject: Re: OpenVZ vs. VMware
Posted by n00b_admin on Fri, 21 Jul 2006 17:14:14 GMT
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well windows is out of the question and virtuozzo will come in handy once i get a grasp of openvz and see how it performs...

I need a vps/client because we will provide more services to clients like ftp acces and more ...

The alternatives of openvz (without virtualization) are less secure than what a vps can offer, yes from a security stand point i want to implement this model of hosting and i am willing to spend a little more bucks on a powerful machine than in a courthouse because some punk kid broke into my server

My plan was to divide the physical resources of my hosting machine, so that all clients get an equal share, i stop worrying about security (because i can restore a vps almost instantly), i can make back-ups without interrupting the service and much more (i sense there's more to discover)

Subject: Re: OpenVZ vs. VMware

Posted by cdevidal on Sat, 22 Jul 2006 10:05:22 GMT
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[quote title=n00b_admin wrote on Fri, 21 July 2006 13:14]i am willing to spend a little more bucks on a powerful machine than in a courthouse because some punk kid broke into my server [quote]

Wow.

You might consider renting a dedicated server, they're real cheep now. ServerPronto.com has $29.95/month servers! APlus.net has $49/month servers...

n00b_admin wrote on Fri, 21 July 2006 13:14My plan was to divide the physical resources of my hosting machine, so that all clients get an equal share,

Yeah you probably want OpenVZ/Virtuozzo then. VMware adds so much overhead but VZ should balance everyone out fairly and evenly.

n00b_admin wrote on Fri, 21 July 2006 13:14i stop worrying about security (because i can restore a vps almost instantly), i can make back-ups without interrupting the service and much more (i sense there's more to discover)

You might look at LVM and/or EVMS; I understand they can do snapshots which would give you a consistent backup -- no locked or changing files.

Subject: Re: OpenVZ vs. VMware
Posted by n00b_admin on Mon, 24 Jul 2006 14:12:50 GMT
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We offer web development AND hosting to our clients, it is an all-in-one package and a commercial thing that makes sense since one who becomes our client doesn't need to search for hosting and additional services since we provide them

If you are using openvz or virtuozzo can you tell me an average disk cost/client ?

I saw that are two directories, private and root and if i start a vps the directory root gets populated with the same content as private ! Can you tell why and if it's taking disk space ?

In this case can i use hard links to "emulate" the files from another vps if i have more servers with the same content ?

Subject: Re: OpenVZ vs. VMware
Posted by John Kelly on Mon, 24 Jul 2006 14:36:26 GMT
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n00b_admin wrote on Mon, 24 July 2006 10:12I saw that are two directories, private and root and if i start a vps the directory root gets populated with the same content as private! Can you tell why and if it's taking disk space?

private is where the data is actually stored. root is a mount that becomes active when you start the VE. It does not take any extra space.

Subject: Re: OpenVZ vs. VMware
Posted by cdevidal on Sat, 29 Jul 2006 01:53:09 GMT
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n00b_admin wrote on Mon, 24 July 2006 10:12If you are using openvz or virtuozzo can you tell me an average disk cost/client ?

Sorry, I don't know that yet. I recall reading that it was just a few hundred MB per VPS because it's just the changes between the template and live VPS.

n00b_admin wrote on Mon, 24 July 2006 10:12In this case can i use hard links to "emulate" the files from another vps if i have more servers with the same content ?

There is supposed to be a utility that searches for duplicates and eliminates them but I don't know what it is. Without said utility all the space advantages of copy-on-write (CoW) disappear over time as filesystems gradually become different.

Herein is one advantage of Linux-VServer over OpenVZ; one user reported that the OpenVZ utility to do this can take a few days but VServer (which does indeed use hard links for duplicate files) takes but a few moments. OpenVZ has enough advantages and one should seldom have to run this tool (and that without interrupting anything) that I didn't consider this to be an issue.

Subject: Re: OpenVZ vs. VMware
Posted by somecallmemike on Fri, 29 May 2009 16:00:26 GMT
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I found a really awesome tool called Proxmox VE http://pve.proxmox.com/wiki/Main_Page that I think rivals the ease of use of VMware due to it's bare metal installation, web based management console, clustering and live migration, and much more. I hate being a pundit, but this product is freaking cool. It's built on a highly customized debian OS and installs bare metal on any hardware, and once its booted you can log into the machine via browser and start building virtual machines in Open VZ or KVM (for windows/anything that can't install in Open VZ). Then add a couple more servers to the mix and you can use the clustering tools built in (the easiest clustering I have ever used) and start live migrating virtual machines. If you're not sure about moving toward

Open VZ due to complicated installation and management, this product pretty much does everything for you and then some in a gui.

Did I mention it's open source and 100% free?!

Subject: Re: OpenVZ vs. VMware
Posted by irontowngeek on Tue, 14 Jul 2009 15:04:15 GMT
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What can PROMMOX VE offer,that Centos-5 can't?
The only failing of EL 5,is its offering of file systems.
My Node server,runs XFS RAID0 for root,and JFS RAID1 for OpenVZ.(this of course,involved some time,in using this type of setup for Centos-5)
Clustering can easily be done,via LUCI.
In my opinion,you can't beat OpenVZ,if and only if,you want "OS to OS" virtualization.
I do in fact,run full PC emulation,on one Node server.(Windows 2003 Server for DNS)
As far as DEBIAN goes,it was always the proverbial "red-headed step child".
If I was using mediocre hardware,then DEBIAN LINUX is the way to go.
Since I don't,I stick with RedHat.
As far as "ease of installation",OpenVZ is not even remotely difficult to install.
Having a "pre-built" OS,for OpenVZ,is hardly a case to judge a level of installation difficulty.
On the subject of "tools",yes,OpenVZ lacked in this subject from the git-go.
So what?
After a few days,playing with OpenVZ,I went right to work on my own "tools".
Being an old school UNIX and DOS user,this was common place.
But,being surrounded by the "point and click" generation,these types of talents,are beginning to wane.
