Subject: openvz and openafs
Posted by liamr on Wed, 03 May 2006 19:37:45 GMT
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Has anyone gotten openafs built on a machine using the openvz 2.6.8 patched kernel? We need openafs for our hosting environment, but can't get it to build on the patched kernel. Seems to work w/ the normal unpatched 2.6.8 kernel sources.

thx
Liam

Subject: Re: openvz and openafs
Posted by Vasily Tarasov on Thu, 04 May 2006 08:06:17 GMT
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Do you use openAFS from mainstream?
Do you need AFS server or client for your hosting environment?

Subject: Re: openvz and openafs
Posted by liamr on Thu, 04 May 2006 14:32:59 GMT
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We're trying to use the openafs client.

I'm not sure what you mean when you ask if we use it from mainstream.. we're trying to build 1.4.x from source downloaded from www.openafs.org.

We generated a local patch that seemed to let openafs build, and afs is working on the host machine, but not in any of the VPSes. Mounting /afs in the vps using...

mount --bind /afs /vz/root/777/afs

doesn't result in a useable afs instance, probably because the kenrnel module isn't loaded in the vps, which I'm not sure I can even do:

May 4 10:16:24 vps1 kernel: No module symbols loaded - kernel modules not enabled.

File Attachments
1) openafs-1.4.0-openvz.diff, downloaded 753 times

Subject: Re: openvz and openafs
Posted by Vasily Tarasov on Fri, 05 May 2006 05:42:48 GMT

> I'm not sure what you mean when you ask if we use it from mainstream.. we're trying to build 1.4.x from source downloaded from www.openafs.org.

There is some implementation of AFS in mainstream (vanilla) kernel 2.6.8 and consequently in openVZ kernel. May be it pass your needs?
You can download openVZ sources and .config file, add
CONFIG_AFS_FS=m
string to .config file and compile kernel.

> We generated a local patch that seemed to let openafs build, and afs is working on the host machine, but not in any of the VPSes.

So, you were able to mount AFS on host machine? And you also were
able to work with files on mounted AFS on host machine?

> Mounting /afs in the vps using...
> # mount --bind /afs /vz/root/777/afs
>doesn't result in a useable afs instance, probably because the kernel module isn't loaded in the vps, which I'm not sure I can even do:
> May 4 10:16:24 vps1 kernel: No module symbols loaded - kernel modules not enabled.

It's impossible and must not be necessary to load modules inside VPS...

So, please, investigate, what about mainstream AFS?
I will try to set up AFS on my node, asap.

Thanks.

Subject: Re: openvz and openafs
Posted by liamr on Fri, 05 May 2006 15:50:27 GMT

> There is some implementation of AFS in mainstream (vanilla)
> kernel 2.6.8 and consequently in openVZ kernel. May be it pass
> your needs?

I don't think it will. I've looked at the notes in /usr/src/linux/Documentation/filesystems/afs.txt, which says..

Quote:This filesystem provides a fairly simple AFS filesystem driver. It is under
development and only provides very basic facilities. It does not yet support
the following AFS features:

(*) Write support.
(*) Communications security.
(*) Local caching.
(*) pioctl() system call.
(*) Automatic mounting of embedded mountpoints.

We need write support. Some of our servers are also very high traffic, and caching is quite important to us as well.

> So, you were able to mount AFS on host machine?

With the client from openafs.org, yes.

> And you also were able to work with files on mounted AFS on
> host machine?

It looks like the host machine is having some problems. AFS seems to work until openvz is started (or at least until you try to go into /afs in one of the VPSes). It's loosing contact w/ our afs servers:

May 5 11:10:24 simlish kernel: afs: Lost contact with file server 141.211.xxx.yyy in cell umich.edu (all multi-homed ip addresses down for the server)
May 5 11:13:28 simlish kernel: afs: file server 141.211.xxx.yyy in cell umich.edu is back up (multi-homed address; other same-host interfaces may still be down)

So, maybe our patch needs some work.
Could this be due to the routing traffic through virtual interface (venet)?
Or maybe by binding /afs to multiple directories?
(mount --bind /afs /vz/root/777/afs)

Subject: Re: openvz and openafs
Posted by dev on Sat, 06 May 2006 10:08:33 GMT
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it should work fine with bind mount.
So can you check please the output of the following commands both from host:
ls /afs
ls /vz/root/777/afs

and from VPS 777:
ls /afs

Subject: Re: openvz and openafs
Posted by liamr on Thu, 11 May 2006 19:43:42 GMT
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/afs, /vz/private/777/afs on the host, and /afs on the guest are all identical.

I'm able to klog and get afs tokens, but when I actually start and access files in AFS, the connections to our local afs servers time out. They do reconnect, but by then the functionality is lost and everything afs related times out.

Subject: Re: openvz and openafs
Posted by dev on Fri, 12 May 2006 08:11:35 GMT
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I created a bug for this:
http://bugzilla.openvz.org/show_bug.cgi?id=166

and added a patch to bugzilla, which should help. But I can't check it :/ Can you help with it?

Subject: Re: openvz and openafs
Posted by liamr on Fri, 12 May 2006 19:04:05 GMT
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Is this patch for the rudimentary AFS support included in the kernel?

Subject: Re: openvz and openafs
Posted by liamr on Fri, 12 May 2006 19:21:16 GMT
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I have to admit I'm not a C programmer.. and I'm certainly not a kernel programmer.

What's the difference between the for_each_process_all() and for_each_process_ve() calls? The guy who made our patch pretty much replaced all occurrances of for_each_process() w/ for_each_process_all().

I'm wondering if some of them should have been for_each_process_ve() instead?

Subject: Re: openvz and openafs
Posted by dev on Sat, 13 May 2006 07:53:33 GMT
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for_each_process_all() loops through every process in the system,
while for_each_process_ve() only through processes of current VE (Virtual Environment, VPS, container).

Subject: Re: openvz and openafs
Posted by dev on Sat, 13 May 2006 07:55:00 GMT
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no, this patch is not included, it was prepared by me due to your complain and imho should help. at least it should be a partial fix if not the whole one. So I ask you to check and give me to know.

Subject: Re: openvz and openafs
Posted by dev on Sat, 13 May 2006 07:56:11 GMT
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a bit explanation to the patch:
AFS is not virtualized, so all connections should go from the same context. if from the host, then from the host. w/o this patch net packets will go from arbitrary context and so it can fail.

Subject: Re: openvz and openafs
Posted by wienczny on Sat, 12 May 2007 01:11:51 GMT
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Hi,

is openafs currently working with openvz? Is somebody working on it?

Regards Stephan

Subject: Re: openvz and openafs
Posted by strowi on Mon, 31 Mar 2008 07:26:26 GMT
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Hi there,

in know this topic is quite old, but i ran into some trouble with the latest stable kernel on debian.
I removed AFS-support form the openvz-kernel and tried compiling the module from source but it always gives some error about GPLed symbols (sys_wait4)...

Anyone else having this problem?

When i get back to the machine, i will post the exact error message...

greetings and thx for any kind of help,
strowi

Subject: Re: openvz and openafs
Posted by dev on Mon, 31 Mar 2008 08:32:46 GMT
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just add EXPORT_SYMBOL(sys_wait4) to your sources.
it looks like someone still uses this symbol.

Subject: Re: openvz and openafs
Posted by strowi on Mon, 31 Mar 2008 09:44:04 GMT
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thx, but where should i add it? In the kernel-sources or the openafs sources?
I am not that much of a kernel-guru. I would think i have to add it in the kernel, but where?

thx,
strowi

Subject: Re: openvz and openafs
Posted by dev on Mon, 31 Mar 2008 09:50:12 GMT
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you can add it to kernel sources.
find sys_wait4() function and add the export right below it.
also plz next time provide exact dmesg messages so it is clear what module is using it.

Subject: Re: openvz and openafs
Posted by strowi on Wed, 02 Apr 2008 14:47:04 GMT
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thx, that solved the error, but brought up a couple of new ones, which i am not able/going to fix...

thx for the help though...

strowi

Subject: Re: openvz and openafs
Posted by Night Nord on Sun, 20 Jul 2008 20:43:58 GMT
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I have another problem with openafs-1.4.7 kernel module.
Firstly - it just not compiles in one place (even with 2.6.26 patch), because of 'for_each_process' in afs_osi.c. As your wiki says, I tried to change it to for_each_process_all (or _ve - results was the same).

But the worst problem is that module just not responding. It even not prints any dmesg output (normally, kernel argues on module license (tried on other machine)).

I tried to upgrade attached patch, but it not help. I'm using 2.6.26 kernel from git master branch.

This is error (maybe solution must be more complex, then simply add _all/_ve?):

src/libafs/MODLOAD-2.6.26-SP/afs_osi.c: In function `afs_osi_TraverseProcTable':
src/libafs/MODLOAD-2.6.26-SP/afs_osi.c:852: error: implicit declaration of function `for_each_task'
src/libafs/MODLOAD-2.6.26-SP/afs_osi.c:852: error: syntax error before "if"
src/libafs/MODLOAD-2.6.26-SP/afs_osi.c: At top level:
src/libafs/MODLOAD-2.6.26-SP/afs_osi.c:864: error: syntax error before "if"

I can't understand anything, why it could be, may be anyone have ideas?