Subject: mysqld not running in all CT's
Posted by plotinus on Sat, 12 Nov 2011 10:13:03 GMT
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Hello all,
I'm running openVZ on centOS 5.7
uname -r
2.6.18-274.3.1.el5.028stab094.3
When I create new containers using a customized fedora v15 template, everythings works ok.
But when I have a certain number of CT's running, mysqld can't start for the last started CT's. If I stop some containers then I can start mysqld and it works.
I enter in a container and see:
[root]# tail -100 /var/logs/mysqld.log

111112 10:22:50 mysqld_safe Starting mysqld daemon with databases from /var/lib/mysql
111112 10:22:50 [Note] Plugin 'FEDERATED' is disabled.
111112 10:22:50 InnoDB: The InnoDB memory heap is disabled
111112 10:22:50 InnoDB: Mutexes and rw_locks use GCC atomic builtins
111112 10:22:50 InnoDB: Compressed tables use zlib 1.2.5
111112 10:22:50 InnoDB: Using Linux native AIO
111112 10:22:50 InnoDB: Warning: io_setup() failed with EAGAIN. Will make 5 attempts before giving up.
InnoDB: Warning: io_setup() attempt 1 failed.
InnoDB: Warning: io_setup() attempt 2 failed.
InnoDB: Warning: io_setup() attempt 3 failed.
InnoDB: Warning: io_setup() attempt 4 failed.
InnoDB: Warning: io_setup() attempt 5 failed.
111112 10:22:52 InnoDB: Error: io_setup() failed with EAGAIN after 5 attempts.
InnoDB: You can disable Linux Native AIO by setting innodb_native_aio = off in my.cnf
111112 10:22:52 InnoDB: Initializing buffer pool, size = 128.0M
111112 10:22:52 InnoDB: Completed initialization of buffer pool
111112 10:22:52 - mysqld got signal 11 ;
This could be because you hit a bug. It is also possible that this binary
or one of the libraries it was linked against is corrupt, improperly built,
or misconfigured. This error can also be caused by malfunctioning hardware.
We will try our best to scrape up some info that will hopefully help diagnose
the problem, but since we have already crashed, something is definitely wrong
and this may fail.

key_buffer_size=8388608
read_buffer_size=131072
max_used_connections=0
max_threads=151
thread_count=0
connection_count=0
It is possible that mysqld could use up to
key_buffer_size + (read_buffer_size + sort_buffer_size)*max_threads = 337868 K
bytes of memory

Hope that's ok; if not, decrease some variables in the equation.

Thread pointer: 0x0
Attempting backtrace. You can use the following information to find out
where mysqld died. If you see no messages after this, something went
terribly wrong...
111112 10:22:52 mysqld_safe mysqld from pid file /var/run/mysqld/mysqld.pid ended

I get also this error:
111112 10:58:31 mysqld_safe Starting mysqld daemon with databases from /var/lib/mysql
111112 10:58:31 [Note] Plugin 'FEDERATED' is disabled.
111112 10:58:31 InnoDB: The InnoDB memory heap is disabled
111112 10:58:31 InnoDB: Mutexes and rw_locks use GCC atomic builtins
111112 10:58:31 InnoDB: Compressed tables use zlib 1.2.5
111112 10:58:31 InnoDB: Using Linux native AIO
111112 10:58:31 InnoDB: Warning: io_setup() failed with EAGAIN. Will make 5 attempts before
giving up.
InnoDB: Warning: io_setup() attempt 1 failed.
InnoDB: Warning: io_setup() attempt 2 failed.
InnoDB: Warning: io_setup() attempt 3 failed.
InnoDB: Warning: io_setup() attempt 4 failed.
InnoDB: Warning: io_setup() attempt 5 failed.
111112 10:58:34 InnoDB: Error: io_setup() failed with EAGAIN after 5 attempts.
InnoDB: You can disable Linux Native AIO by setting innodb_native_aio = off in my.cnf
111112 10:58:34 InnoDB: Initializing buffer pool, size = 128.0M
111112 10:58:34 InnoDB: Completed initialization of buffer pool
111112 10:58:34 - mysqld got signal 11 ;
This could be because you hit a bug. It is also possible that this binary
or one of the libraries it was linked against is corrupt, improperly built,
or misconfigured. This error can also be caused by malfunctioning hardware.
111112 10:58:34 mysqld_safe mysqld from pid file /var/run/mysqld/mysqld.pid ended
 Here is the /etc/my.cnf file of a container:
[mysqld]
datadir=/var/lib/mysql
socket=/var/lib/mysql/mysql.sock
user=mysql
# Disabling symbolic-links is recommended to prevent assorted security risks
symbolic-links=0

[mysqld_safe]
log-error=/var/log/mysqld.log
pid-file=/var/run/mysqld/mysqld.pid

Here are the UBC:
[root]# cat /proc/user_beancounters
Version: 2.5

uid	resource	held	maxheld	barrier	limit	failcnt
113:	kmemsize	2526590	3377739	168442484	185286732	

0

lockedpages	0	0	8224	8224	0
privvmpages	11502	78323	1381448	1519592	0
shmpages	128	128	138144	138144	0
dummy	0	0	0	0	0
numproc	14	28	4112	4112	0
physpages	4268	10532	0	9223372036854775807	0
vmguarpages	0	0	1381448	9223372036854775807	0
oomguarpages	4268	10532	1381448	9223372036854775807	0
numtcpsock	4	4	4112	4112	0
numflock	4	5	1000	1100	0
numpty	1	1	411	411	0
numsiginfo	0	4	1024	1024	0
tcpsndbuf	70016	70016	39304742	56147494	0
tcprcvbuf	65536	65536	39304742	56147494	0
othersockbuf	2328	12200	19652371	36495123	0
dgramrcvbuf	0	8472	19652371	19652371	0
numothersock	2	5	4112	4112	0
dcachesize	231933	255408	36792419	37896192	0
numfile	519	778	65792	65792	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
numiptent	24	24	100	100	0

SELINUX is disabled on the hn.
I've found the fantstic vzsplit and used it for partitioning the resources, but the problem still persists.
How do you solve it?
I'm reading some articles but I don't identify where lies the problem.
Please can anyone help?
Thanks in advance!!!
P

Subject: Re: mysqld not running in all CT's
Posted by plotinus on Sun, 04 Dec 2011 22:10:17 GMT

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Now I've got 70 running containers, but only on 24 of them mysqld can run. I start them randomly, and mysqld runs only on the 24 first containers that I boot.
I've changed ubc parms, but no success.
Can please anybody give me any hint? I dont know where lies the problem: mysql? ubc parms? ulimit?
Thanks in advance,
P

Subject: Re: mysqld not running in all CT's
Posted by plotinus on Mon, 05 Dec 2011 10:47:26 GMT
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I've read lots of posts.
Some of they say "recompile kernel", some others "unload modules".
How can I know what is the right way to follow?
I can't identify where is the problem.
Total lost and becoming crazy.

Subject: More info: it has to do with the template
Posted by plotinus on Mon, 05 Dec 2011 22:02:36 GMT
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I've used the same template for all containers: the standard fedora 15 x86_64, with some changes: mysql, and security issues.
Now, I've used the standard ubuntu 11.04 template plus mysql and it works!
Does anybody know why the fedora template doesn't work?
I've copied the ubuntu's my.conf file into the fedora template, but it doesn't work.
Thanks in advance,
P

Subject: Re: mysqld not running in all CT's
Posted by ergosteur on Tue, 26 Jun 2012 14:28:42 GMT
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Did you ever figure this out? I have the same issue, but running Proxmox (Debian 2.6.32-7-pve) with the default Proxmox Debian 6.0 template and MySQL 5.5 from DotDeb.
MySQL 5.1 works fine, but as soon as I update to 5.5 I can only start 24 CTs. the 25th fails with

Jun 26 10:20:26 myhost mysqld_safe: Starting mysqld daemon with databases from /var/lib/mysql
Jun 26 10:20:26 myhost mysqld: 120626 10:20:26 [Note] Plugin 'FEDERATED' is disabled.

Jun 26 10:20:26 myhost mysqld: 120626 10:20:26 InnoDB: The InnoDB memory heap is disabled
Jun 26 10:20:26 myhost mysqld: 120626 10:20:26 InnoDB: Mutexes and rw_locks use GCC atomic builtins
Jun 26 10:20:26 myhost mysqld: 120626 10:20:26 InnoDB: Compressed tables use zlib 1.2.3.4
Jun 26 10:20:26 myhost mysqld: 120626 10:20:26 InnoDB: Using Linux native AIO
Jun 26 10:20:26 myhost mysqld: 120626 10:20:26 InnoDB: Warning: io_setup() failed with EAGAIN. Will make 5 attempts before giving up.
Jun 26 10:20:26 myhost mysqld: InnoDB: Warning: io_setup() attempt 1 failed.
Jun 26 10:20:27 myhost mysqld: InnoDB: Warning: io_setup() attempt 2 failed.
Jun 26 10:20:27 myhost mysqld: InnoDB: Warning: io_setup() attempt 3 failed.
Jun 26 10:20:28 myhost mysqld: InnoDB: Warning: io_setup() attempt 4 failed.
Jun 26 10:20:28 myhost mysqld: InnoDB: Warning: io_setup() attempt 5 failed.
Jun 26 10:20:29 myhost mysqld: 120626 10:20:29 InnoDB: Error: io_setup() failed with EAGAIN after 5 attempts.
Jun 26 10:20:29 myhost mysqld: InnoDB: You can disable Linux Native AIO by setting innodb_use_native_aio = 0 in my.cnf
Jun 26 10:20:29 myhost mysqld: 120626 10:20:29 InnoDB: Fatal error: cannot initialize AIO sub-system
Jun 26 10:20:29 myhost mysqld: 120626 10:20:29 [ERROR] Plugin 'InnoDB' init function returned error.
Jun 26 10:20:29 myhost mysqld: 120626 10:20:29 [ERROR] Plugin 'InnoDB' registration as a STORAGE ENGINE failed.
Jun 26 10:20:29 myhost mysqld: 120626 10:20:29 [ERROR] Unknown/unsupported storage engine: InnoDB
Jun 26 10:20:29 myhost mysqld: 120626 10:20:29 [ERROR] Aborting
Jun 26 10:20:29 myhost mysqld:
Jun 26 10:20:29 myhost mysqld: 120626 10:20:29 [Note] /usr/sbin/mysqld: Shutdown complete
Jun 26 10:20:29 myhost mysqld:
Jun 26 10:20:29 myhost mysqld_safe: mysqld from pid file /var/run/mysqld/mysqld.pid ended

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Subject: Re: mysqld not running in all CT's
Posted by plotinus on Wed, 27 Jun 2012 18:45:21 GMT
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What a mistery!
I forgot about fedora, and now with ubuntu 11.04 server everything goes fine, since months ago.
I'm afraid I can't help you, I'm sorry.

Subject: Re: mysqld not running in all CT's
Posted by RedKrieg on Tue, 07 Aug 2012 22:36:42 GMT
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I ran into the same issue and was able to work around it. There are two solutions I found.

Disable AIO in all containers' my.cnf files by adding "innodb_use_native_aio=0"
Increase the global limit for the server in "/proc/sys/fs/aio-max-nr"

The first solution is simple and causes MySQL to revert to the previous 5.1 style behavior. Unfortunately if you're offering service to end-users, they may remove this setting or set up their own MySQL instance.

The second solution is more nuanced, but probably better if you can't rely on the containers' configurations to be static or if you want the enhanced performance of Asynchronous I/O.

On my CentOS5 based Virtuozzo node, the default value of aio-max-nr is 65536. A default MySQL 5.5 install will use 2661 of these, leading to the maximum of 24 started MySQL instances with the setting enabled. You should tune the value to be greater than max_instances * 2661 to ensure that you don't run into this issue.

In my case, I opted for the first solution because I didn't have time to test the effects of having this many AIO tasks happening in parallel on a single hardware node and I understand the 5.1 behavior very well for large tasks. If you opt to go with option 2 on a large install, I'd be interested in hearing how it worked out for you (as I'm sure many others reading this thread are as well).

All the docs I could find related to this:

docs.oracle.com/cd/E17952_01/refman-5.5-en/innodb-performanc e-aio-linux.html