Subject: Hornet Queue (jboss) vs sever resource shortage
Posted by Dariush Pietrzak on Thu, 22 Mar 2012 12:08:48 GMT
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Hello,
 we have encountered a very strange behaviour of HornetQueue, running it
inside vz results in:

 bash: fork: Cannot allocate memory
or
  xmalloc: cannot allocate 4008 bytes (2084864 bytes allocated)

( this is on host node, that has ~20G of free, unused RAM, inside
containers the problem is not visible - hornet is limited to ~4G of ram,
container is limited to ~16G of ram and 0 vSwap, rest is unlimited )

 UBC inside container shows no visible resource usage problem, I'd go as
far as to call it frugal - 1600 filedescriptors, very low shm usage,
physpages nowhere near limit, and yet, when daemon runs, HN is unable to
even accept login from console.

how can I track down what is causing this?

regards, Eyck
--
Key fingerprint = 40D0 9FFB 9939 7320 8294  05E0 BCC7 02C4 75CC 50D9
 Total Existance Failure

Subject: Re:  Hornet Queue (jboss) vs sever resource shortage
Posted by Andrew Vagin on Thu, 22 Mar 2012 14:12:51 GMT
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Which kernel do you use?
Could you show content of /proc/bc/CTID/resources?

On 03/22/2012 04:08 PM, Dariush Pietrzak wrote:
> Hello,
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> inside vz results in:
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> even accept login from console.
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> how can I track down what is causing this?
>
> regards, Eyck

---

Subject: Re:  Hornet Queue (jboss) vs sever resource shortage
Posted by Stoyan Stoyanov on Thu, 22 Mar 2012 14:19:38 GMT
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If I understand you don't have ANy failcnts in /proc/ ubc ? is that
right?
Im using jboss (can say with 'middle load') inside vms and the
problems (cannot allocate memory etc.) was beautifully printed in
failcnt on /proc/user_bea...

On Mar 22, 2012, at 2:08 PM, Dariush Pietrzak wrote:

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> it
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Stoyan Stoyanov
Core System Administrator

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## File Attachments

1) maxtelecom-logo.gif, downloaded 639 times

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Subject: Re:  Hornet Queue (jboss) vs sever resource shortage
Posted by Dariush Pietrzak on Thu, 22 Mar 2012 14:28:34 GMT
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On Thu, 22 Mar 2012, Andrew Vagin wrote:

> Which kernel do you use?
042stab049.6

> Could you show content of /proc/bc/CTID/resources?

 Well, yes and no, I can't do anything on HN,
but I can show you  cat /proc/user_beancounters:
(this is from the guest that caused all that resource shortage)
Version: 2.5

| uid | resource | held | maxheld | barrier | limit | failcnt |
|---|---|---|---|---|---|---|
| 178032: | kmemsize | 34481819 | 36954112 | 17179869184 | 19327352832 | 0 |
| | lockedpages | 0 | 0 | 9223372036854775807 | 9223372036854775807 | 0 |
| | privvmpages | 3360282 | 5017649 | 4194304 | 4718592 | 0 |
| | shmpages | 5451 | 5467 | 9223372036854775807 | 9223372036854775807 | 0 |
| | dummy | 0 | 0 | 0 | 0 | 0 |
| | numproc | 505 | 693 | 9223372036854775807 | 9223372036854775807 | 0 |
| | physpages | 766009 | 942952 | 0 | 3932160 | |

```
0
        vmguarpages          0              0  9223372036854775807
9223372036854775807              0
        oomguarpages       620184         772457  9223372036854775807
9223372036854775807              0
        numtcpsock            120            214  9223372036854775807
9223372036854775807              0
        numflock               10             13  9223372036854775807
9223372036854775807              0
        numpty                 12             12  9223372036854775807  9223372036854775807
              0
        numsiginfo              0             45  9223372036854775807
9223372036854775807              0
        tcpsndbuf         2498464        3850016       17179869184       19327352832
                0
        tcprcvbuf         2499360        6331520       17179869184       19327352832
                0
        othersockbuf         9344          35296  9223372036854775807
9223372036854775807              0
        dgramrcvbuf             0           8768  9223372036854775807
9223372036854775807              0
        numothersock           72             76  9223372036854775807
9223372036854775807              0
        dcachesize         10880246       11060512       17179869184       19327352832
                0
        numfile             1488           1660  9223372036854775807
9223372036854775807              0
        dummy                  0              0              0              0              0
        dummy                  0              0              0              0              0
        dummy                  0              0              0              0              0
        numiptent             10             10  9223372036854775807
9223372036854775807              0
```

(as you can see I tried limiting some of the resources, when it
was first noticed, everything was unlimited:unlimited
except physpages which is at 16G, and swap which was set to 0.)
When the hornetq is stopped inside container, HN returns back to life,
but untill then, even things like bash completion fails with:

xmalloc: ../bash/make_cmd.c:100: cannot allocate 519 bytes (2076672 bytes allocated)

regards, Eyck
--
Key fingerprint = 40D0 9FFB 9939 7320 8294  05E0 BCC7 02C4 75CC 50D9
Total Existance Failure

Subject: Re: Hornet Queue (jboss) vs sever resource shortage
Posted by Dariush Pietrzak on Thu, 22 Mar 2012 16:12:15 GMT
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> xmalloc: ../bash/make_cmd.c:100: cannot allocate 519 bytes (2076672 bytes allocated)

And here's excerpt from top ( running on HN ):

Mem: 32942724k total, 5930724k used, 27012000k free, 528k buffers
Swap: 8388600k total, 0k used, 8388600k free, 1864140k cached

```
  PID USER      PR  NI  VIRT  RES  SHR S %CPU %MEM    TIME+  COMMAND
76750 nn12      20   0 4621m 1.2g  10m S    1  3.7   2:40.11 java
-Ddata.dir=/var/spool/ss/queue/hot/server0-data -Djnp.port=1099 -Djnp.rmiPort=1098
-Djnp.host=myhost.cc -Dhornetq.remoting.netty.host=myhost.cc
-Dhornetq.remoting.netty.port=5445 -Dcom.sun.management.jmxremote
-Dcom.sun.management.jmxremote.port=6000 -Dcom.sun.management.jmxremote.ssl=false
-Dcom.sun.management.jmxremote.authenticat
 76876 nn12      20   0 4632m 1.0g  10m S    1  3.3   2:15.22 java
-Ddata.dir=/var/spool/ss/queue/hot/server1-data -Djnp.port=1199 -Djnp.rmiPort=1198
-Djnp.host=myhost.cc -Dhornetq.remoting.netty.hos
```

to verify that all that memory really is available, i ran:
dd if=/dev/zero of=/dev/null bs=1G
( and then 2G, 4G )
and as can be seen here, it works:

Mem: 32942724k total, 8034640k used, 24908084k free, 528k buffers
Swap: 8388600k total, 0k used, 8388600k free, 1864276k cached

```
  PID USER      PR  NI  VIRT  RES  SHR S %CPU %MEM    TIME+  COMMAND
118477 root     20   0 4107m 2.0g  504 R  100  6.4   0:10.60 dd if=/dev/zero of=/dev/null bs=4G
 76750 nn12     20   0 4621m 1.2g  10m S    1  3.7   2:41.35 java -Ddata.dir=/var/spool
```

but the HN can't allocate anything. I'm baffled. What kind of memory shortage can cause such symptoms?

regards, Eyck
--
Key fingerprint = 40D0 9FFB 9939 7320 8294 05E0 BCC7 02C4 75CC 50D9
Total Existance Failure

Subject: Re: Hornet Queue (jboss) vs sever resource shortage
Posted by Andrew Vagin on Fri, 23 Mar 2012 13:49:51 GMT
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On 03/22/2012 06:28 PM, Dariush Pietrzak wrote:

> (as you can see I tried limiting some of the resources, when it was
> first noticed, everything was unlimited:unlimited except physpages
> which is at 16G, and swap which was set to 0.) When the hornetq is
> stopped inside container, HN returns back to life, but untill then,
> even things like bash completion fails with: xmalloc:
> ../bash/make_cmd.c:100: cannot allocate 519 bytes (2076672 bytes
> allocated) regards, Eyck

Could you file a bug in https://bugzilla.openvz.org/ ?

---

Subject: Re: Hornet Queue (jboss) vs sever resource shortage
Posted by kir on Fri, 23 Mar 2012 20:31:51 GMT
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On 03/23/2012 05:49 PM, Andrew Vagin wrote:
> On 03/22/2012 06:28 PM, Dariush Pietrzak wrote:
>> (as you can see I tried limiting some of the resources, when it was
>> first noticed, everything was unlimited:unlimited except physpages
>> which is at 16G, and swap which was set to 0.) When the hornetq is
>> stopped inside container, HN returns back to life, but untill then,
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>> ../bash/make_cmd.c:100: cannot allocate 519 bytes (2076672 bytes
>> allocated) regards, Eyck
> Could you file a bug in https://bugzilla.openvz.org/ ?
I'd suggest trying to reproduce the case on the latest rhel6-testing
kernel (042stab053.3) and then filing a bug.

---

Subject: Re: Hornet Queue (jboss) vs sever resource shortage
Posted by Dariush Pietrzak on Fri, 30 Mar 2012 17:59:05 GMT
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> >>which is at 16G, and swap which was set to 0.) When the hornetq is
> >>stopped inside container, HN returns back to life, but untill then,
> >>even things like bash completion fails with: xmalloc:
> >>../bash/make_cmd.c:100: cannot allocate 519 bytes (2076672 bytes
> >>allocated)

> >Could you file a bug in https://bugzilla.openvz.org/ ?

> I'd suggest trying to reproduce the case on the latest rhel6-testing
> kernel (042stab053.3) and then filing a bug.

Filed a bug, reproduced it on 042stab053.3 and also today on 042stab053.5.
Noticed few more different things - when I set privvmpages to 12G:16G, I
can't start java (hornetq) with -Xmx set to ~7G, and UBC increases failure

count on privvmpages, program fails to start with:

Error occurred during initialization of VM
Could not reserve enough space for object heap
Could not create the Java virtual machine.

(so there is something here, that accounting at least notices).
( when I reduce -Xmx to ~6G, hornetq starts, and then I get 'out of memory'
errors on console/HN ).
 Also, it seems that limiting heap with -Xmx to ~512M makes it possible to
run one or two instances with hornetq without ill-effects.

regards, Eyck
--
Key fingerprint = 40D0 9FFB 9939 7320 8294  05E0 BCC7 02C4 75CC 50D9
 Total Existance Failure