Subject: How to increase SHMMAX for virtual OS?
Posted by Siaco on Thu, 16 Nov 2006 08:17:49 GMT
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Hi.

I'm trying to run PostgreSQL on virtual system and I need to increase SHMMAX to be able to assign a higher than default value for shared_buffers parameter (essential for performance). I've tried to increase 'shmpages' parameter, but I suppose that I did not calculate peges to bytes properly. Or, maybe, do I have to change other parameters too?

Error message during starting postgreSQL with too high shared_buffers value is typical for too low shmmax (in real OS). PostgreSQL cannot start even at shared_buffers set to 4000 (in 8KB pages -> 32 MB). The requested segment size is 36184064.

And here are my kernel settings. Most of them calculated by vzsplit, shmpages changed manually.

Version: 2.5

uid	resource	held	maxheld	barrier	limit	failcnt
110:	kmemsize	2074026	4280348	69857006	76842706	0
	lockedpages	0	0	3410	3410	0
	privvmpages	2107	22409	153494	168843	0
	shmpages	0	6794	46184064	46184064	0
	dummy	0	0	0	0	0
	numproc	19	44	2666	2666	0
	physpages	1184	15973	0	9223372036854775807	0
	vmguarpages	0	0	153494	9223372036854775807	0
	oomguarpages	1184	15973	153494	9223372036854775807	0
	numtcpsock	5	6	2666	2666	0
	numflock	3	4	1000	1100	0
	numpty	0	1	266	266	0
	numsiginfo	0	3	1024	1024	0
	tcpsndbuf	86880	0	12365733	23285669	0
	tcprcvbuf	81920	0	12365733	23285669	0
	othersockbuf	35464	49936	6182866	17102802	0
	dgramrcvbuf	0	9680	6182866	6182866	0
	numothersock	21	32	2666	2666	0

dcachesize	0	0	15246664	15704064	0
numfile	1134	2098	27264	27264	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
numiptent	10	10	200	200	0

Is there a more advanced howto about setting kernel parameters?

R.

Subject: Re: How to increase SHMMAX for virtual OS?
Posted by Vasily Tarasov on Thu, 16 Nov 2006 08:55:41 GMT
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The page http://wiki.openvz.org/Shmpages#shmpages contents information about shmpages. Following the links from that page you'll be able to get complete information about all user beancounters parameters.

HTH,
vass.

Subject: Re: How to increase SHMMAX for virtual OS? (postgresql)
Posted by Siaco on Thu, 16 Nov 2006 15:13:12 GMT
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Thanks, but...

Either it doesn't work, or problem is located elsewhere.

It's now clear, that I have 1 page=4KB. Thus I'm setting shared_buffers in postgresql to 4000 (8KB pages) and SHMPAGES to 12000. It is clear, that 32 MB of shared mem in postgresql is less than 48 MB for whole virtual env, but PostgreSQL still cannot start.

SHMPAGES does'nt appear in 'consistency check' table. vzcfgvalidate reports success.

Do you have any other ideas?

R.
