Subject: Re: RSS controller v2 Test results (lmbench)
Posted by Balbir Singh on Fri, 18 May 2007 04:07:22 GMT
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Rik van Riel wrote:
> Balbir Singh wrote:
>
>> A meaningful container size does not hamper performance. I am in the
>> process
>> of getting more results (with varying container sizes). Please let me
>> know
>> what you think of the results? Would you like to see different
>> benchmarks/
>> tests/configuration results?
>
> AIM7 results might be interesting, especially when run to crossover.
>

I'll try and get hold of AIM7, I have some AIM9 results (please
see the attachment, since the results overflow 80 columns, I've
attached them).

> OTOH, AIM7 can make the current VM explode spectacularly :)
>
> I saw it swap out 1.4GB of memory in one run, on my 2GB memory test
> system. That's right, it swapped out almost 75% of memory.
>

This would make a good test case for the RSS and the unmapped page
cache controller. Thanks for bringing it to my attention.

> Presumably all the AIM7 processes got stuck in the pageout code
> simultaneously and all decided they needed to swap some pages out.
> However, the shell got stuck too so I could not get sysrq output
> on time.
>

oops! I wonder if AIM7 creates too many processes and exhausts all
memory. I've seen a case where during an upgrade of my tetex on my
laptop, the setup process failed and continued to fork processes
filling up 4GB of swap.

> I am trying out a little VM patch to fix that now, carefully watching
> vmstat output. Should be fun...
>

VM debugging is always fun!

--
Warm Regards,
Balbir Singh
Linux Technology Center
IBM, ISTL

Test Number	Test Name	Elapsed Time (sec)	Iteration Count	Iteration Rate (loops/sec)	Operation Rate (ops/sec)	
1	creat-clo	60.00	8885	148.08333	148083.33	File Creations and Closes/second (256 MB container)
1	creat-clo	60.01	8547	142.42626	142426.26	File Creations and Closes/second (unlimited container)
1	creat-clo	60.01	8632	143.84269	143842.69	File Creations and Closes/second (container not mounted)
2	page_test	60.00	6068	101.13333	171926.67	System Allocations & Pages/second (256 MB container)
2	page_test	60.00	5275	87.91667	149458.33	System Allocations & Pages/second (unlimited container)
2	page_test	60.01	5411	90.16831	153286.12	System Allocations & Pages/second (container not mounted)
3	brk_test	60.01	9151	152.49125	2592351.27	System Memory Allocations/second (256 MB container)
3	brk_test	60.02	7404	123.35888	2097100.97	System Memory Allocations/second (unlimited container)
3	brk_test	60.01	8294	138.21030	2349575.07	System Memory Allocations/second (container not mounted)
4	jmp_test	60.01	983062	16381.63639	16381636.39	Non-local gotos/second (256 MB container)
4	jmp_test	60.00	983084	16384.73333	16384733.33	Non-local gotos/second (unlimited container)
4	jmp_test	60.00	982904	16381.73333	16381733.33	Non-local gotos/second (container not mounted)
5	signal_test	60.01	28013	466.80553	466805.53	Signal Traps/second (256 MB container)
5	signal_test	60.00	28360	472.66667	472666.67	Signal Traps/second (unlimited container)
5	signal_test	60.01	28593	476.47059	476470.59	Signal Traps/second (container not mounted)
6	exec_test	60.02	2596	43.25225	216.26	Program Loads/second (256 MB container)
6	exec_test	60.02	2539	42.30257	211.51	Program Loads/second (unlimited container)
6	exec_test	60.01	2536	42.25962	211.30	Program Loads/second (container not mounted)
7	fork_test	60.01	2118	35.29412	3529.41	Task Creations/second (256 MB container)

7 fork_test 60.03 2130 35.48226 3548.23 Task Creations/second (unlimited container)
7 fork_test 60.01 2130 35.49408 3549.41 Task Creations/second (container not mounted)
8 link_test 60.02 47760 795.73476 50131.29 Link/Unlink Pairs/second (256 MB container)
8 link_test 60.02 48156 802.33256 50546.95 Link/Unlink Pairs/second (unlimited container)
8 link_test 60.00 49778 829.63333 52266.90 Link/Unlink Pairs/second (container not mounted)
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