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

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

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