

## Re: [PATCH] Re: Kernel Panic – 2.6.23–rc4–mm1 ia64 – was Re: Update: [Automatic] NUMA replicated pagecache ...

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*Source:* <http://linux.derkeiler.com/Mailing-Lists/Kernel/2007-09/msg03275.html>

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- *From:* Balbir Singh <[balbir@xxxxxxxxxxxxxxxxxxxxxx](mailto:balbir@xxxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Thu, 13 Sep 2007 02:53:32 +0530
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Lee Schermerhorn wrote:

On Wed, 2007-09-12 at 16:41 +0100, Andy Whitcroft wrote:

On Wed, Sep 12, 2007 at 11:09:47AM -0400, Lee Schermerhorn wrote:

Interesting, I don't see a memory controller function in the stack trace, but I'll double check to see if I can find some silly race condition in there.

right. I noticed that after I sent the mail.

Also, config available at:

<http://free.linux.hp.com/~lts/Temp/config-2.6.23-rc4-mm1-gwydyr-nomemcont>

Be interested to know the outcome of any bisect you do. Given its tripping in reclaim.

Problem isolated to memory controller patches. This patch seems to fix this particular problem. I've only run the test for a few minutes with and without memory controller configured, but I did observe reclaim kicking in several times. W/o this patch, system would panic as soon as I entered direct/zone reclaim—less than a minute.

Thanks, excellent catch! The patch looks sane. Thanks for your help in sorting this issue out. Hmm.. that means I never hit direct/zone reclaim in my tests (I'll make a mental note to enhance my test cases to cover this scenario).

Re: [PATCH] Re: Kernel Panic – 2.6.23–rc4–mm1 ia64 – was Re: Update: [Automatic] NUMA replicated pagecache

Lee

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PATCH 2.6.23–rc4–mm1 Memory Controller: initialize all scan\_controls' isolate\_pages member.

We need to initialize all scan\_controls' isolate\_pages member. Otherwise, shrink\_active\_list() attempts to execute at undefined location.

Signed-off-by: Lee Schermerhorn <lee.schermerhorn@xxxxxx>

mm/vmscan.c | 2 ++  
1 file changed, 2 insertions(+)

Index: Linux/mm/vmscan.c

=====  
--- Linux.orig/mm/vmscan.c 2007-09-10 13:22:21.000000000 -0400  
+++ Linux/mm/vmscan.c 2007-09-12 15:30:27.000000000 -0400  
@@ -1758,6 +1758,7 @@ unsigned long shrink\_all\_memory(unsigned  
.swap\_cluster\_max = nr\_pages,  
.may\_writepage = 1,  
.swappiness = vm\_swappiness,  
+ .isolate\_pages = isolate\_pages\_global,  
};  
  
current->reclaim\_state = &reclaim\_state;  
@@ -1941,6 +1942,7 @@ static int \_\_zone\_reclaim(struct zone \*z  
SWAP\_CLUSTER\_MAX),  
.gfp\_mask = gfp\_mask,  
.swappiness = vm\_swappiness,  
+ .isolate\_pages = isolate\_pages\_global,  
};  
unsigned long slab\_reclaimable;

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Warm Regards,  
Balbir Singh  
Linux Technology Center  
IBM, ISTL

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