Andrew Morton wrote:
> On Fri, 27 Oct 2006 18:05:50 +0400
> Vasily Averin <vvs@sw.ru> wrote:
>
>> Virtuozzo/OpenVZ linux kernel team has discovered that umount/remount can last
>> for hours looping in shrink_dcache_sb() without much successes. Since during
>> shrinking s_umount semaphore is taken lots of other unrelated operations like
>> sync can stop working until shrink finished.
>
> Did you consider altering shrink_dcache_sb() so that it holds onto
> dcache_lock and moves all the to-be-pruned dentries onto a private list in
> a single pass, then prunes them all outside the lock?

At the first glance it is wrong because of 2 reasons:
1) it continues to check the whole global LRU list (we propose to use per-sb
LRU, it will provide very quick search)
2) we have not any guarantee that someone will add new unused dentries to the
list when we prune it outside the lock. And to the contrary, some of unused
dentries can be used again. As far as I understand we should hold dcache_lock
beginning at the removing dentry from unused_list until dentry_iput() call.

David did it inside shrink_dcache_for_umount() just because it have guarantee
that all the filesystem operations are finished and new ones cannot be started.

Thank you,
 Vasily Averin