Subject: Re: [RFC][PATCH 2/7] RSS controller core
Posted by akpm on Tue, 13 Mar 2007 06:04:39 GMT
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> On Mon, 12 Mar 2007 23:41:29 +0100 Herbert Poetzl <herbert@13thfloor.at> wrote:
> On Mon, Mar 12, 2007 at 11:42:59AM -0700, Dave Hansen wrote:
> > How about we drill down on these a bit more.
> >
> > On Mon, 2007-03-12 at 02:00 +0100, Herbert Poetzl wrote:
> > > - shared mappings of 'shared' files (binaries
> > >   and libraries) to allow for reduced memory
> > >   footprint when N identical guests are running
> >
> > So, it sounds like this can be phrased as a requirement like:
> >
> > "Guests must be able to share pages."
> >
> > Can you give us an idea why this is so?
>
> sure, one reason for this is that guests tend to
> be similar (or almost identical) which results
> in quite a lot of 'shared' libraries and executables
> which would otherwise get cached for each guest and
> would also be mapped for each guest separately

nooooooo. What you're saying there amounts to text replication. There is
no proposal here to create duplicated copies of pagecache pages: the VM
just doesn't support that (Nick has soe protopatches which do this as a
possible NUMA optimisation).

So these mmapped pages will contiue to be shared across all guests. The
problem boils down to "which guest(s) get charged for each shared page".

A simple and obvious and easy-to-implement answer is "the guest which paged
it in". I think we should firstly explain why that is insufficient.

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