

---

Subject: Re: Checkpoint/Restart mini-summit  
Posted by [Daniel Lezcano](#) on Thu, 17 Jul 2008 16:15:39 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Eric W. Biederman wrote:

> Daniel Lezcano <dlezcano@fr.ibm.com> writes:

>

>> Hi all,

>>

>> Here is a proposition a more detailed agenda for the checkpoint/restart  
>> mini-summit. If everybody is ok with it, I will update the wiki.

>>

>> Comments are welcome :)

>

> A reading list is useful, even to help get some ideas circulating  
> before we get there.

>

> Ultimately the technical details will need to be resolve by  
> people discussing things and sending patches back and forth  
> on the mailing lists.

>

> I don't think a detailed agenda is going to get us anywhere.  
> Especially not one focused on the implementation details.

>

> I think we need to start by seeing what we can agree on. Certainly we  
> agree that checkpoint/restart needs to be part of the picture. What  
> are the problems that the linux community can solve with  
> checkpoint/restart.

>

> Then we need to talk about what kind of implementation we want to  
> merge into mainline. How do we sell it, and how do we implement  
> it without affecting long term maintainability.

>

> I think the granularity of our operations, and what state we  
> save is important. I don't think how we save it is important  
> unless it affects one of our requirements.

>

> As for the posix draft and the historical Cray & SGI implementations.  
> They were on the wrong track. The did not have namespace support  
> so they could not in general restore their checkpoints.

>

> There are also a lot of things you have failed to touch on, that  
> I'm not going to go into now.

>

> With any luck the mini-summit before OLS will be the start of a  
> conversation that will go on all week, and continue on the mailing  
> lists.

>

> The real question is how do we coordinate our efforts to build a good  
> linux checkpoint/restart implementation.  
>  
>> \* Documentation  
>> \* Zap : [www.ncl.cs.columbia.edu/publications/usenix2007\\_fordist.pdf](http://www.ncl.cs.columbia.edu/publications/usenix2007_fordist.pdf)  
>> \* Metacluster : [lxc.sourceforge.net/doc/ols2006/lxc-ols2006.pdf](http://lxc.sourceforge.net/doc/ols2006/lxc-ols2006.pdf)  
>> \* OpenVZ : [http://wiki.openvz.org/Checkpointing\\_and\\_live\\_migration](http://wiki.openvz.org/Checkpointing_and_live_migration)  
>> \* Checkpoint/Restart technology :  
>> [http://en.wikipedia.org/wiki/Application\\_checkpointing](http://en.wikipedia.org/wiki/Application_checkpointing)  
>> \* Virtual Servers and Checkpoint/Restart in Mainstream Linux : Sigops  
>> document  
>  
> There is also the classic emacs undump.  
> The very simple vmadump from bproc.

Thanks Eric for all your comments. I agree the agenda is a little big, I will reduce it and I will add the points you raised. I have other points from by Oren I will add too, perhaps that will cover more aspect of the discussion.

-- Daniel

---

Containers mailing list  
Containers@lists.linux-foundation.org  
<https://lists.linux-foundation.org/mailman/listinfo/containers>

---