

Re: Pending timeout v. Reprieve

Source:

<http://www.tech-archive.net/Archive/Windows/microsoft.public.windows.server.clustering/2005-01/0200.html>

From: Alex L (AlexL_at_discussions.microsoft.com)

Date: 01/14/05

Date: Fri, 14 Jan 2005 13:25:08 -0800

Iype,

In my online thread I set the CheckPoint to 1. So I do expect to get a reprieve each time. However, I have only seen it not get a reprieve once in all my observations. Thanks for all your help; your explanations have helped tremendously.

Regards,
Alex

"Iype Isac [MSFT]" wrote:

> Alex
> *The only possible explanation that I can think of is this.*
> *From the documentation*
> *"Resource DLLs initially set CheckPoint to zero" .*
> *If you make sure that the first SetResourceState call on the online pending*
> *state is greater than 0, then you are sure to get a reprieve. If you set the*
> *first call with checkpoint =0, then you will not get the reprieve. Besides*
> *this, there should be no other reason that you are not getting a reprieve.*
>
> Iype
>
>
> "Alex L" <AlexL@discussions.microsoft.com> wrote in message
> news:8238D7E4-83FC-41DB-BB57-A2E0399FEA7B@microsoft.com...
> > Hi Iype,
> >
> > *Thanks again for your valuable information. I understood the part about*
> > *merely providing an update is sufficient to get a reprieve. However, I*
> > *did*
> > *not know that:*
> >
> > > *Also, the reprieve is given by the resource monitor at the end of the*
> > > *PendingTimeout.*
> >
> > *What I do currently is SetResourceState() (onlinepending) call at the*

> > *beginning of my online thread. Is this good enough to get a reprieve at*
> > *the*
> > *end of the pending timeout, since that might be considered an update*
> > *"sometime in the previous PendingTimeout" ? If so, now 99% of my cases*
> > *make*
> > *sense. However, I still don't know why that 1% of the time, it actually*
> > *does*
> > *timeout without any reprieve given. Does this make sense?*
> >
> > *Thanks again,*
> > *Alex*
> >
> >
> >
> > *"Iype Isac [MSFT]" wrote:*
> >
> >> *Alex*
> >> *By providing an update on the status of the resource, what we mean here*
> >> *is*
> >> *that you just let the resource monitor know what your status is. So if*
> >> *you*
> >> *are online pending, and you still are online pending, even if you sent an*
> >> *update again saying that you are online pending, the resource monitor*
> >> *will*
> >> *give you a reprieve. So a status update does not have to mean a change in*
> >> *the status.*
> >> http://msdn.microsoft.com/library/default.asp?url=/library/en-us/mscs/mscs/resource_status.asp
> >> *The checkpoint member in the RESOURCE_STATUS structure plays an important*
> >> *role during the OnlinePending State. If you have called the*
> >> *SetResourceState*
> >> *with an incremented value of the checkPoint member, the resource monitor*
> >> *picks up that update and you will get a reprieve if you have not come*
> >> *online*
> >> *yet. Else it is not treated as a new update and the resource will*
> >> *timeout,*
> >> *if it does not come online.*
> >>
> >> *Also, the reprieve is given by the resource monitor at the end of the*
> >> *PendingTimeout. This is given to the resource, if the resource has given*
> >> *the*
> >> *resource monitor a status update sometime in the previous PendingTimeout*
> >> *interval. The reprieve is not given exactly when the resource state is*
> >> *updated.*
> >>
> >> *HTH*
> >> *Iype*
> >>
> >> *"Alex L" <AlexL@discussions.microsoft.com> wrote in message*
> >> *news:219CBACB-5157-46A2-9E39-C1C8915079C9@microsoft.com...*
> >> > *Iype,*
> >>>

> > > *Thanks for your response. This information is good to know. However,*
> > > *my*
> > > *code does not call SetResourceStatus until AFTER the resource is*
> > > *online.*
> > > *Therefore, from my point of view, the 2 situations below should behave*
> > > *the*
> > > *same because the online hasn't been completed so no updates would be*
> > > *sent.*
> > >
> > > *Also, it is strange that the reprieve always comes EXACTLY when the*
> > > *pending*
> > > *timeout period has elapsed. According to the discription of*
> > > *PendingTimeout,*
> > > *that would mean my code is providing an update (SetResourceStatus) at*
> > > *EXACTLY*
> > > *that time.*
> > >
> > > *Perhaps there's something else going on here?*
> > >
> > > *Thanks again,*
> > > *Alex*
> > >
> > > *"Type Isac [MSFT]" wrote:*
> > >
> > >> *Alex*
> > >> *PendingTimeout is not the time given to the resource to come online or*
> > >> *offline. It is the time interval for which the service waits for an*
> > >> *update*
> > >> *on the status of the resource. If the resource updates the status,*
> > >> *then*
> > >> *it*
> > >> *gets a reprieve. If in this Pending TimeOut interval, if your resource*
> > >> *does*
> > >> *not give an update to the Resource Monitor about its status, then the*
> > >> *resource is marked failed.*
> > >>
> > >> *Below is a link to the explanation...*
> > >>
http://msdn.microsoft.com/library/default.asp?url=/library/en-us/mscs/mscs/resources_pendingtimeout.asp
> > >>
> > >> *"The PendingTimeout property sets the number of milliseconds that a*
> > >> *Resource*
> > >> *Monitor will wait for a resource DLL to update the status of a*
> > >> *resource*
> > >> *in*
> > >> *an OnlinePending or OfflinePending state before terminating the*
> > >> *resource.*
> > >> *The PendingTimeout property does not necessarily limit the time that a*
> > >> *resource can spend in a ClusterOnlinePending or ClusterOfflinePending*
> > >> *state"*
> > >>

> > > > *So in the first case, it looks like the resource did not update its
> > > > status
> > > > within the time interval of 180 seconds (Pending Timeout). So it
> > > > failed.
> > > > In the second scenario, it looks like the resource did update its
> > > > status
> > > > in
> > > > the first time interval, so it got a 'reprieve' but it did not send
> > > > any
> > > > more
> > > > status updates. So after the second time interval it failed.
> > > >
> > > > Iype
> > > >
> > > > "Alex L" <AlexL@discussions.microsoft.com> wrote in message
> > > > news:29638B2B-571E-4782-AC49-126D97E76545@microsoft.com...
> > > > > Hello,
> > > > >
> > > > > I am confused as to why sometimes I get a "reprieve" after the
> > > > > pending
> > > > > timeout period and sometimes I actually get timed out after the
> > > > > resource
> > > > > pending timeout period. To clarify, below is 2 situations, both of
> > > > > which
> > > > > I
> > > > > have seen to occur.
> > > > >
> > > > > Situation 1: pending timeout:
> > > > > 1. set resource pending timeout = 180 seconds
> > > > > 2. online resource
> > > > > 3. after 180 seconds (and resource not yet online) resource is timed
> > > > > out
> > > > > and
> > > > > fails, cluster.log:
> > > > >
> > > > > WARN [RM] RmpTimerThread: Resource testres1 pending timed out, CP
> > > > > 1 -
> > > > > setting state to failed.
> > > > >
> > > > >
> > > > > Situaion 2: reprieve after timeout
> > > > > 1. set pending timeout = 180
> > > > > 2. online resource
> > > > > 3. after 180 seconds, resource gets a "reprieve" and is NOT failed.
> > > > > cluster.log:
> > > > >
> > > > > INFO [RM] RmpTimerThread: Giving a reprieve for resource "testres1"
> > > > >
> > > > > 4. after ANOTHER 180 seconds, if the resource still isn't online,
> > > > > the
> > > > > resource is now timed out and fails.*

> >> >> >
> >> >> > *Situation 1 makes sense to me. Does anyone know why a reprieve is*
> >> >> > *given*
> >> >> > *in*
> >> >> > *situation 2, effectively making the actual pending timeout to be =*
> >> >> > *2x*
> >> >> > *the*
> >> >> > *configured pending timeout.*
> >> >> >
> >> >> > *Thanks in Advance,*
> >> >> > *Alex*
> >> >>
> >> >>
> >> >>
> >>
> >>
> >>
>
>
>