
Subject: Re: more IDL falls asleep
Posted by [deja_jlin](#) on Tue, 29 May 2001 20:39:14 GMT
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hi all,

the folks at RSI responded re this problem, and it has to deal with the license manager. here's the applicable parts of their reply (the technical term for IDL sleeping and never waking up again is "deadlock"):

If it is indeed deadlock, then I believe you are encountering a weakness in FLEXlm licensing that is generally only observable in very "large" IDL processes. It is based on an implementation of malloc() in FLEXlm that is not thread-safe. To keep a constant tab on licensing status in its network FLEXlm sends out a periodic query to each of its clients. This query uses the unsafe malloc() call. There is a very minute probability that this call might be concurrent with an IDL use of system malloc(), and that is where the deadlock occurs. Very large IDL processes that have many calls allocating new memory are capable of defying the odds and experiencing this deadly concurrency. We have actually never been able to (knowingly) reproduce this in-house, but identified the clash in 'pstack' output from our customers. You also would probably see the concurrent malloc() calls in your own run of 'pstack' on the ID of a process that has "fallen asleep."

Our only solution is Research Systems' own licensing protocol, Genver licensing. The downside to Genver licensing is that it must be renewed every 180 days, and you must have a separate license for each individual host that is running your long IDL programs.

they're working on fixing this for the 5.5 release, but aren't sure if it will be ready then, since fixing it is actually quite tricky.

hope this helps others experiencing this problem!

best,
-Johnny

Johnny Lin
CIRES, University of Colorado
Work Phone: (303) 735-1636
Web: <http://cires.colorado.edu/~johnny/>
