Subject: Re: How is the privvmpages limit reached?
Posted by rickb on Sun, 10 Feb 2008 03:00:13 GMT
View Forum Message <> Reply to Message

You do not see this problem on xen for the same reason you do not see it on a stock linux kernel.

http://www.redhat.com/magazine/001nov04/features/vm/

Quote:overcommit_memory is a value which sets the general kernel policy toward granting memory allocations. If the value is 0, then the kernel checks to determine if there is enough memory free to grant a memory request to a malloc call from an application. If there is enough memory, then the request is granted. Otherwise, it is denied and an error code is returned to the application. If the setting in this file is 1, the kernel allows all memory allocations, regardless of the current memory allocation state. If the value is set to 2, then the kernel grants allocations above the amount of physical RAM and swap in the system as defined by the overcommit_ratio value. Enabling this feature can be somewhat helpful in environments which allocate large amounts of memory expecting worst case scenarios but do not use it all.

http://www.gnu.org/software/gnusound/Documentation/ar01s05.h tml
Quote:Memory overcommit is a Linux kernel feature that lets applications allocate more memory than is actually available. The idea behind this feature is that some applications allocate large amounts of memory "just in case", but never actually use it. Thus, memory overcommit allows you to run more applications than actually fit in your memory, provided the applications don't actually use the memory they've allocated. If they do, then the kernel terminates the application.

GNUsound needs enough memory (RAM + swap) to load a file into memory completely. GNUsound will try to recover gracefully from memory allocation failures, but sometimes it simply can't. In particular, you may have problems when using a kernel that has memory overcommit enabled. This may result in GNUsound being killed as it tries to load the file. To try and solve the problem, you can either increase the amount of memory (by adding RAM or swap), or you can disable memory overcommit by typing (as root):

$ echo 2 > /proc/sys/vm/overcommit_memory