**Runtime system**

- Preemption code should try to use less locking

Right now, we use a CAS to zero the limit pointer to preempt vprocs. This CAS is used to prevent a race between preemption and minor gc. But, this approach may generate extra bus traffic and may be affecting CML performance adversely.

- OS interface

We currently ad-hoc all of our calls into the C runtime libraries. Look into thesis work by Lee Ping (UPenn) on the work done to do high-performance system calls in a parallel runtime.