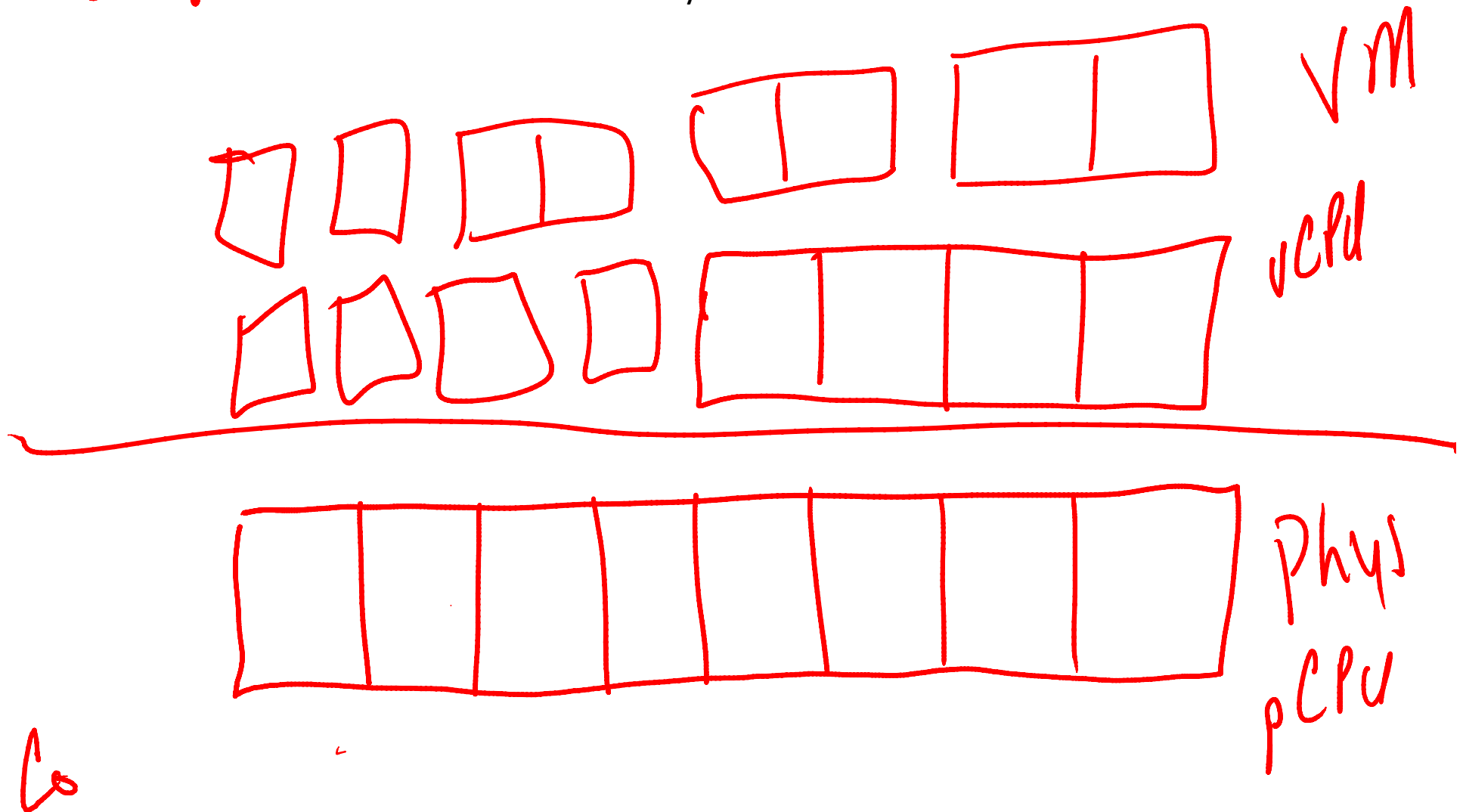


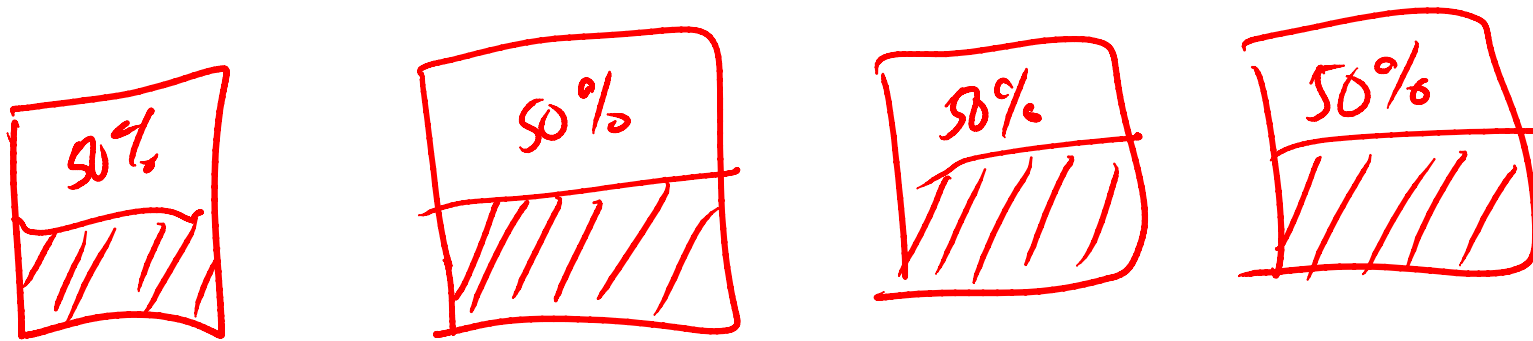
CPU Ready

esxtop CPUReady%

This slide demonstrates CPU coscheduling for SMP VM's and why having a VM with more vCPU's may not mean that you actually get more CPU usage. The 4 vCPU VM is going to have to wait to preempt 4 physical cores while the smaller VMs can easily jump on and off of schedulers in the system.



Bin Packing in HyperV



50% 4 vCPU
80% 2 vCPU

This supplements the binpacking slide for HyperV showing how an 80% 2 vCPU reservation would prevent the second server from starting, even though the equivalent of 2 full vCPU's exists in the environment, the 80% reserve can't be fulfilled from the remaining percentages on 2 of the physical processors.

Large Pages



Blue = OS



This shows the potential problem of using Large Pages and the required contiguous memory allocation at the instance start up. If there is a fragmented memory allocation like what is shown in the bottom picture, the maximum size of the buffer pool will be significantly reduced and instance startup will take longer due to allocation back-off attempts by the SQLOS.