

The graph above is the plot required showing benchmark result. X-axis devote to Vm number, and Y-axis devote to unhappy users. My test using "c-1000-1" as rand\_spec. There are "knees" at 3 VMs and 5 VMs. The first "knee" occurs because the time spent on each task is different, so with the increase of VM number, the speed of decrease of unhappy users will decrease. The second "knee" is due to almost all request is handled. The only left one unhappy user is caused by that we initiate other VMs from the first VM, and this request failed before other VMs are running. And according to the graph, 5 VM is enough for this query.