VMware vSphere Performance Resolution Cheat Sheet

Problem	Perf Charts	RESXTOP/ESXTOP	Interpret
VMware Tools	Summary Tab		Check if installed or out of date
Host CPU Saturation	Check CP Usage	Type **c**, check **AVG** on **PCPU Util %**	If Avg usage > 75% or peak usage > 90%, check ready time Ready time is <=5% is normal Ready time 5%-10%, be aware Ready time > 10% (2,000ms) for any vCPU, host is saturated.
Guest CPU Saturation	Select VM, check CPU Usage counter.	Type **c**, check **%USED** counter for VM	If average usage is > 75% or Peak >90%, guest CPU is saturated.
Active Host Level Swapping	Check Memory Swap In Rate and Memory Swap Out rate	Type **m,** check **SWAP/MB** Type **m** then **v,** view swap stats field (**j**). check **SWR/s** and **SWW/s** for affected VM	If any value is >0, active swapping is occurring.
Overloaded Storage	Check Disk Command Aborts on host	Type **d**, view **Errors Stats** field (**k**), check **ABRTS/s** for all LUNs	If value > 0 for any LUN, storage is overloaded on that LUN.
Dropped receive packets	Checked DroppedRX counter	Type **n**, check **%DRPRX** counter for all vmnics	If value > 0, there is a network related performance problem.
Dropped transmit packets	Check droppedTX counter	Type **n**, check **%DRPTTX** counter for all vmnics	If value > 0, there is a network related problem
Only 1 vCPU in SMP VM	Check CPU Usage counter for each vCPU in VM	Type **c**, then **v**, then type e and enter VM's GID. View **%USED** for each vCPU	If usage for all vCPU's except on is nearly 0, SMP VM is using only one vCPU.
Slow Storage	Check Physical Device read Latency and Physical device Write Latency	Type **d**, view **read latency (i)** and **write latency (j)**. Check **DAVG/rd** and **DAVG/wr** for each vmhbas on host	If any value is > 10ms or have peaks > 20ms, storage is slow or overloaded on that vmhba
Low guest CPU Utilization	Check CPU usage counter for VM	Type **c**, view **%USED** counter for VM	If value is > 75%, guest CPU utilization is low.
High utilization on pCPU0	Check CPU Utilization on host for CPU 0 object for host	Type **c**. In the **pCPU UTIL%** line, check first value listed (CPU0) and the **AVG** value	If pCPU is > 75% and it is >20% of overall CPU Usage, there is a High utilization issue on pCPU0
Past Host Level Swapping	Check Memory Swap Used counter in host perf chart. Check memory used Counter in VM perf chart.	Type **m**, Check current value in **SWAP/MB** Check **SWCUR** counter for the VM.	If any value is >0, memory has been swapped in the past.
High host memory demand	Check Memory Balloon counter in host Perf Chart Check Memory Balloon Counter in VM Perf Chart	Type **m**, check curr counter in **MEMCTL/MB** line Check **MCTLSZ** counter for the problem VM	If ballooning > 0 for host, check ballooning in problem VM. If ballooning > 0 for VM, check for high paging activity within guest OS using OS tools
High Guest Memory demand	Check Memory usage counter in VM Perf Chart	Type **m**, check **MEMSZ** and **GRANT** counters for VMs. Memory usage = GRANT/MEMSZ	If average is > 80% or peak usage > 90%, high guest memory demand still exists.