

vSphere 6 ESXTOP quick Overview for Troubleshooting

ESXTOP Command overview

For changing to the different views type:

m	Memory	i	Interrupts	v	Disk VM
c	CPU	d	Disk Adapter	p	Power states
n	Network	u	Disk Device	x	vsan
f	for add/remove fields			o	change field order
V	show only virtual machine instances			k	kill a world
2	highlight a row scrolling down			e	expand/rollup (where available)
8	highlight a row scrolling up				
spacebar:	refresh screen				
s 2:	refresh screen every two seconds				

Network n – Fields: A B C D E F K L

PORT-ID	UPLINK	UP	SPEED	FDUPLX	USED-BY	TEAM-PNIC	DNAME	%DRPTX	%DRPRX
16777218	Y	Y	1000	Y	vminic0	-vSwitch0	0.00	0.00	
16777219	Y	Y	1000	Y	vminic2	-vSwitch0	0.00	0.00	
33554508	N	-	-	1098259	LABVM01	vminic1	vSwitch1	0.00	0.00
33554509	N	-	-	1096171	LABVM02	vminic1	vSwitch1	0.00	0.00

Used-by/Team-PNIC: provide information what physical NIC a VM is actually using.

%DRPTX, %DRPRX: Dropped Packages transmitted/Dropped Packages received. Values larger 0 are a sign for high network utilization

Memory m – Fields: B D J K Q

10:15:09am up 33 days 23:51, 402 worlds, 13 VMs, 18 vCPUs; MEM overcommit avg: 0.00, 0.00, 0.00											
PMEM /MB: 65525 total: 1530 vmk, 44433 other, 19561 free											
VMKMEM /MB: 65202 managed: 1266 minfree, 4963 revd, 60238 ursvd, 1 high state											
NUMA /MB: 32757 (8367), 32767 (10554)											
PSHARE /MB: 20166 shared: 6164 common: 14002 saving											
SWAP /MB: 0 curr, 0 rclmtgt: 0.00 r/s, 0.00 w/s											
ZIP /MB: 0 zipped, 0 saved											
MEMCTL /MB: 0 curr, 0 target, 37419 max											
GID NAME MCTLsz MCTLtgt MCTLmax SWCUR SWTGT SWR/s SWW/s CACHEsz CACHEUSD ZIP/s UNZIP/s											
949615 LABVM01 0.00 0.00 5323.89 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00											
1233985 LABVM02 0.00 0.00 5324.51 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00											
941153 LABVM03 0.00 0.00 3992.69 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00											
955149 LABVM04 0.00 0.00 2662.11 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00											
952352 LABVM05 0.00 0.00 2661.89 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00											
949616 LABVM06 0.00 0.00 2495.64 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00											

average memory overcommitment for the last one, five and 15 minutes

MCTLsz: Amount of guest physical memory (MB) the ESXi Host is reclaiming by balloon driver. A reason for this is memory overcommitment.

SWCUR: Memory (in MB) that has been swapped by VMKernel. Possible cause: memory overcommitment.

SWR/s, SWW/s: Rate at which the ESXi Host is writing to or reading from swapped memory. Possible cause: memory overcommitment.

CPU c – Fields: D F

%USED: CPU Core cycles used by a VM. High values are an indicator for VMs causing performance problems on ESXi Hosts.

%SYS: Percentage of time spent by system to process interrupts and to perform other system activities on behalf of the world. Possible cause: maybe caused by high I/O VM

9:15:39am up 33 days 22:51, 401 worlds, 13 VMs, 18 vCPUs; CPU load average: 0.21, 0.17, 0.20											
PCPU USED(%):			PCPU UTIL(%):			CPU load average for the last one, five and 15 minutes					
NAME	%USED	%RUN	%SYS	%WAIT	%VNWAIT	%RDY	%IDLE	%OVRLP	%CSTP	%MLMTD	%SWPNT
LABVM01	188.45	171.50	2.02	405.92	0.09	0.06	21.31	0.63	0.00	0.00	0.00
LABVM02	88.57	81.82	0.47	495.55	0.00	0.12	110.70	0.16	0.00	0.00	0.00
LABVM03	11.76	10.66	0.22	566.07	0.33	0.75	180.99	0.14	0.00	0.00	0.00
LABVM04	8.14	7.39	0.11	569.76	0.00	0.33	185.26	0.05	0.00	0.00	0.00

%VMWAIT: percentage of time a VM was waiting for some VMkernel activity to complete (such as I/O) before it can continue. Includes %SWPWT and "blocked", but not IDLE Time (as %WAIT does).

Possible cause: Storage performance issue | latency to a device in the VM configuration eg. USB device, serial pass-through device or parallel pass-through device

%RDY: Percentage of time a VM was waiting to be scheduled. If you note values between five and ten percent take care. Possible reasons: too many vCPUs, too many vSMP VMs or a CPU limit setting (check %MLMTD)

Note: for SMP VMs with multiple vCPUs ESXTOP accumulates %rdy for all vCPUs, resulting in higher values. If you want to see the values for each dedicated vCPU, press "e" to Expand/Rollup CPU statistics and insert the GID of the VM you want to analyse.

%CSTP: This value is interesting if you are using vSMP virtual machines. It shows the percentage of time a ready to run VM has spent in co-deschedule state. If value is >3 decrease the number of vCPUs from the VM concerned.

%MLMTD: Counter showing percentage of time a ready to run vCPU was not scheduled because of a CPU limit setting. Remove limit for better performance.

%SWPWT: Counter showing how long a VM has to wait for swapped pages read from disk. A reason for this could be memory overcommitment. Pay attention if %SWPWT is >5!

Memory m – Fields: B D J K Q

10:15:09am up 33 days 23:51, 402 worlds, 13 VMs, 18 vCPUs; MEM overcommit avg: 0.00, 0.00, 0.00											
PMEM /MB: 65525 total: 1530 vmk, 44433 other, 19561 free											
VMKMEM /MB: 65202 managed: 1266 minfree, 4963 revd, 60238 ursvd, 1 high state											
NUMA /MB: 32757 (8367), 32767 (10554)											
PSHARE /MB: 20166 shared: 6164 common: 14002 saving											
SWAP /MB: 0 curr, 0 rclmtgt: 0.00 r/s, 0.00 w/s											