

## \* Load averages

→ The load average is the average of the load number for a given period of time.

→ It takes into account process that are:

- Actively running on a CPU.

- Considered runnable but waiting on the run queue for a CPU to become available.

- sleeping: waiting for some kind of resource (typically, I/O) to become available.

→ The load average can be viewed by running `w`, `top` or `uptime`.

## \* Interpreting Load Averages.

→ The load average is displayed using three numbers (0.45, 0.17, 0.12)

→ Assuming our system is a single CPU system, the three load average numbers are interpreted as follows.

- 0.45 :- For the last minute the system has been 45% utilized on average.

- 0.17 :- For the last 5 minutes utilization has been 17%.

- 0.12 :- For the last 15 minutes utilization has been 12%.

→ If we saw a value of 1.00 in second position, that would imply that single-CPU system was 100% utilized on average over past 5 minutes.

→ If we had more than one CPU, say a quad CPU system, we would divide the load average number by the number of CPUs.

$$\frac{\text{load avg}}{\text{cpu number}}$$

→ Short term increases are usually not a problem. A high peak you see is likely a burst of activity not a new level.

→ For example at start up, many process start and then activity settles down. If a high peak is seen in the 5 and 15 minute load avg, it may be cause of longer

## \* managing Jobs

- The jobs command displays all jobs running in background.
- The display shows the job ID, state and command name.
- jobs -l provides the same information as jobs and adds the PID of the background jobs.
- The background jobs are connected to the terminal window, so if you log off the jobs command will not show ones started from that window.